

**FACTORS AFFECTING LITERACY SKILLS DEVELOPMENT AMONG
HEARING IMPAIREMENTS, A CASE AT MAGWERO SCHOOL FOR
THE DEAF IN CHIPATA DISTRICT OF EASTERN PROVINCE**

By

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DECLARATION

I, **JAMES BANDA**, hereby declare that the work contained in this dissertation is typically as a result of my own individual efforts and that all the work from other researchers has been acknowledged. I further declare that this dissertation has not been submitted for a degree at the University of Zambia or any other University.

CERTIFICATE OF APPROVAL

This dissertation of **James Banda** is approved as partial fulfilling part of the requirements for the award of a Master of Education in Special Education the University of Zambia.

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ABSTRACT

Several researches have showed that the literacy skills levels of learners with hearing impairment are below that of hearing students. This research sought to elucidate factors affecting literacy skills development among hearing impairments, using the case of learners at Magwero School for the Deaf in Chipata District of Eastern Province.

The study employed mixed methods where both qualitative and quantitative techniques were used. The representative sample was composed of thirty participants were fifteen educators (twelve teachers and three administrators) ten learners selected using the purposive and stratification sampling technique and five parents who were conveniently selected. The Questionnaires, interviews and observation were the data gathering tools used. Data from teachers was collected through questionnaires and parents and HI learners were interview and focus group discussions respectively.

The results showed that there are factors affecting literacy skills development among learners with hearing impaired and revealed that there was no formal teaching of Zambian Sign Language as a subject like English or local language from Pre-School to grade 12. In addition lack of Pre-reading books in sign language, pictures in sign language, as while as lack of trained pre-school special education teachers. There was lack of sign language materials that could be used in the teaching of Zambian Sign Language. It further revealed that teacher's teaching methods had an impact on literacy skills development of the learners. It was also revealed that teacher's failure to use and embrace new technology when teaching has affected skills development.

The study has also revealed that lack of teachers' and pupils use of resource centers to source for reading materials, instead they opted to use TALULAR that is Teaching and Learning Using Locally Available resources as teaching aids with no sign language in them, teacher's incompetency in sign language and lack of training in sign language by teachers impacted negatively on the literacy skills development of HI learners, pupils were not interested in reading during pre-time instead they concentrated on sexual activities and that the IEP was no implemented due to high pupil to teacher ratio at School and the combining of grade affected the literacy skills development among HI learners. Learners had difficulties to comprehend words, sentences and to write good sentences.

From the observations and interviews carried out, it was established that a lot of factors affecting literacy skills development made learners not to be exposed to interactive language as most of the people around them were not native signers. Very few interactions were noted among learners with hearing impairment, teachers and their parents as well as their hearing counterparts. It was also noted that the home language of HI learners was Cinyanja, which is different from the Sign Language and signed English used by their children with hearing impairment.

The study revealed that the School has teachers who have not undergone any training in special education and sign language in particular and these teachers have just keen interest to teach hearing impairment despite this and this interest is also encouraged by some teachers who are incompetence in teaching sign language.

The research observed that the Catch-up was not adopted by the School as a methodology to develop literacy skills among HI learners. The researchers further observed that the teachers at Magwero Deaf do not know that the 2013 revised curriculum introduced sign language as a subject and that there is sign language Syllabus in place from grade 1 to 7 to promote the literacy learning among the HI learners at primary school level. The general aim of was to enable learners with hearing impairment gain/acquire literacy competences that would enable them function comfortably in society.

The study recommended strengthening of training pre-school special education teachers, training of sign language teachers and teachers to be sensitized to use sign language syllabus when teaching of sign language as an academic subject. They should use *Zambian sign language* and signed English as sole medium of classroom instruction. It was recommended that a variety of strategies to provide meaningful language experiences be employed.

DEDICATION

I dedicate this work of my hands to my dearest wife Cathreen Chipeta and our two children James and Favour. My heart goes out to my family who listened and understood my situation in the overwhelming work laid upon me making me not available in moments they needed me most.

Furthermore I dedicate this work to my late mother Tipezani Banda and father Mr. Yalesani Banda who inspired and laboured for me to go to school despite going through hardships. I cherish the love, encouragement and concern for my welfare from my brothers Philimon, Abraham, Nathan and Joseph and my sisters Grace, Mary, and Beauty.

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ACRONYMS

HI	Hearing Impaired
MOGE	Ministry of General Education
CPD	Continuous Professional Development
FGD	Focus Group Discussions
GRZ	Government of the Republic of Zambia.
IDEA	Individuals with Disabilities Education Act
IEP	Individualised Educational Programmes
MoE	Ministry Of Education
SEN	Special Educational Needs
MESVTEE	Ministry of Education, Science, Vocational Training and Early Education
ZAMISE	Zambia Institute of Special Education
UNZA	The University of Zambia
TALULAR	Teaching and Learning Using Locally Available Resources
CDC	Curriculum Development Centre
TLM	Teaching and Learning Materials (TLM)

CHAPTER ONE

1.0 Introduction

This chapter focused on the background of study, statement of the problem, purpose of the study and objectives of the study. Further it determined the research questions, the significance of the study, Theoretical framework, Delimitation and the expected limitations of the research including operational definitions of the major research terms.

1.1 Background of the study

Acquisition of literacy skills is an important pathway to other curricula areas and provides students opportunities to enter the world of work, literature and enjoy videos, television with captioning and other forms of entertainment with their hearing peers. Evidence from Rottenberg and Searfoss (1992) indicated that children who are deaf use literacy as a way to learn about and gain access to a world where the majority of people use a verbal mode of communication. Opportunities to read and enjoy books alone, with friends or with teachers, and exploring written words are important learning experiences for all students (Briggle, 2005).

Children who are hearing impaired, like their hearing peers, participate in literacy events and use written language in many typical ways. When attempts at signed communication fail, children rely on drawing or writing to express themselves. National deaf children's, (2014) the majority of children do not develop adequate understanding of any language modality whether it be oral communication, sign language, or cued speech/lip-reading to assist in the process of comprehending written language. Students with hearing impairment use Sign Language to communicate, yet they live and interact in a speaking world. According to Matafwali (2016), a person with a hearing impairment has some loss or distortion of his or her hearing hence he or she very much depends on sign language to learn new skills. This means that the learners with hearing impairment gets information about the world largely through language which makes him or her to be in contact with objects and people in the world. Similarly Berk (1992) confirmed that children rely more on language to get help on a difficult task they are doing.

In a society where so much information is conveyed through the electronic media or reliance upon print-based media, represents a very high degree of communication for hearing impaired. Students with hearing impairment use sign language to communicate, write, live and interact in an English speaking world. Strong literacy skills are also needed to allow students with hearing

impairment to complete in the job market. They are expected to read and produce English in assignments, communicate, write exams at school and Universities levels using the Standard English like the hearing peers. This is in spite of the fact that scholars, such as Simeonsson & Rosentha (2001), assertion that learners with hearing impairments exhibit more serious problems in reading English language in general. According to Polloway, Patton & Serna (2008), the deficit in reading is thought to be the primary reason for failure in school.

However, in Zambia literacy development in students who are hearing impaired is a multifaceted issue and the consequences of low literacy skills for people with hearing impairment in this digital era are far graver than at any other era. Literacy achievement in a spoken and written language is a challenge for students with hearing impairment due to different factors (Rottenberg and Scarfoss, 1992). High levels of literacy achievement are now more important than ever before.

The current situation in Zambia in which, learners with hearing impairments experience difficulties in achieving normative standards of literacy in spoken, signing, reading and written language, is not new and a lot of research has been done by different scholars but still the problem persist. The education of the learners with hearing impairments has been characterized by low reading levels, Leo (1989). It is common for children with hearing impairment at Magwero School to comprehend and produce shorter signs and simpler sentences than children with normal hearing. Children with hearing impairment at Magwero School for the deaf often have difficulty understanding and writing complex sentences, such as those with relative clauses or passive voice. Often cannot read word endings such as -s or -ed. This has lead to misunderstandings and misuse of verb tense, pluralisation and possessives.

1.2 Purpose of the Study

The purpose of this study was to investigate the factors affecting literacy skills development among learners with hearing impairments at Magwero School for the Deaf.

1.3 Statement of the problem

Students who are deaf experience poor reading and writing performance in schools (Padden and Ramsey, 1993). There are reported significant lower levels of attainment in literacy in students with hearing impairment when compared with their hearing age peers. Zambia was ranked last in the 2011 Southern and East Africa Consortium for Monitoring Education Quality (SACMEQ),

and falls well below the SACMEQ average in both numeracy and literacy. A 2014 national assessment found that 65% of Zambian Grade 2 learners were unable to read a single word in their local language.

According to the government data, the share of children who could not even read a letter fell by 26 percentage points from 33% to 8% during the pilot period, and the share of children reading with basic proficiency (a simple paragraph or a story) grew by 18 percentage points from 34% to 52%. In arithmetic, the share of students in the beginner group (who could not even complete two-digit addition sums) fell by 16 percentage points from 44% to 28% and the share of students with basic proficiency (able to complete two digits subtraction) rose by 18 percentage points from 32% to 50%.

Studies carried out in Zambia on reading skills show low performance among learners in primary schools. The Southern Africa Consortium for Monitoring learning Quality (SACMEQ) (1998) conducted a research on reading performance in Zambia and found that the reading levels were low. Others have described trends in hearing impairment student writing that include text that is typically shorter, less complex, and sentences that are comprised of repetitions of basic grammatical patterns and the introduction of new topics without full development of ideas (Singleton et al., 2004).

Mayer (2010) noted notes that written language for learners with hearing impairment consistently contains simplified sentences, grammatical errors or non-standard usages. The National Assessments in reading of 1999-2003 revealed low performance in reading among children with Special Education Needs (CSEN), including the hearing impaired (MoE, 2003).

The assessment showed that hearing impaired learners were the lowest in literacy skills development compared to other disability groups. In 2012, regional mock examinations pass rate for learners with hearing impairments in grades 7, 9 and 12 in most schools in Zambia, the performance of the hearing impaired ranged from 34% and 43% while that of other disability groups was above 50% (MOE, 2012).

Therefore there was a need to critically analyze the factors affecting literacy skills development among learners with hearing impaired at Magwero School for the Deaf, as these factors affect the student's educational success and social communication.

1.4 Study Objectives

The study aimed at achieving the following objectives: -

1. To identify factors affecting literacy skills development among learners with hearing impairment.
2. To determine which strategies are employed by teachers in teaching literacy skills development.
3. To establish challenges faced by learners with HI in the acquisition of literacy skills.
4. To examine measures put in place to support development of literacy skills among learners with Hearing Impaired.

1.5 Research questions

The following questions guided the study:

1. What are the factors affecting literacy skills development?
2. What strategies are employed by teachers in teaching literacy skills development?
3. What challenges are faced by learners with HI in the acquisition of literacy skills?
4. What are the measures put in place to influence the literacy skills development?

1.6 Significance of the Study

The main significance of the study was to provide data for policy makers line Ministries Non-Governmental Organization and educational leaders in discovering new methods that will enhance and improve literacy skills development among hearing impaired learners.

It also hoped that the Curriculum Development Centre (CDC) may benefit from the findings of this study when coming up with materials and curriculum for HI learner's and may assist the institution to design a better curriculum that will accommodate all the necessary skills to help the learners with hearing impairment participate in academic and social live. MOE may consequently use the results of this study to adequately provide learning materials appropriate for literacy skills developments to learners with hearing impairments and teacher use and to fund the special education sector.

The colleges and universities may further use the study results of this research to advise all affected stakeholders on how to train learners on set of skills found in the literacy skills

development. Furthermore it is expected that the Universities, Teacher Education Colleges may use these research findings to design teaching strategies for training special education teachers to better teach literacy skills development in an effective and efficient way.

In the case of the Examination Council of Zambia, it is hoped that the study may help the institution develop examination materials that will critically assess the areas of the literacy skills development like examining sign language as a local language for the hearing impaired learners.

1.7 Theoretical Framework

The research study adopted the ecological systems theory propounded by Urie Bronfenbrenner (1917-2005). That is, this theory has been chosen because most hearing impairment need the support of the significant from others to master the additional set of skills found in literacy skills development. The ecological/bio-ecological theory was used to guide the study as well as the basis for the interpretation of data as it categorised the factors and explained how the challenges from these factors affect the literacy skills development among learners with hearing impairments.

In this theory indicate that children develop within multiple social systems that influence every aspect of their lives which including education life settings. Bronfenbrenner explains that various immediate and distant forces affect an individual's development in the society and he classified these ecological systems into five; namely, the microsystems, mesosystems, exosystems, macrosystems, and chronosystems in which the first four interact with or are linked together in a system of nested, interdependent and dynamic structures ranging from the proximal, consisting of immediate face-to-face settings, to the most distal, comprising broader social contexts such as classes and culture (Bronfenbrenner 1993). There five elements within the various systems potentially influence the self-efficacy language acquisition and educational outcomes of learners with hearing impaired.

He believes that development involves a reciprocal and dynamic relationship between all these have systems, in which each developing person is significantly affected by interactions between numbers of overlapping interaction within the systems. This is supported by Sacks (1992),who postulates that the best way for the learners with hearing impairment to learn new skills is through a carefully, consciously crafted and incidental fashion requiring a learning experience that derives from sequential teaching. The microsystem consists of interpersonal relationships and pattern of activities as experienced by an individual in a given society of specific physical

and material features (Bronfenbrenner, 1995). This layer has direct contact with the individual as it contains structures, relationships and interactions within the person's immediate environment such as family, school and neighbourhood and therefore has the most influence on the individual (Berk 2000; Paquefe & Ryan (2001).

The mesosystem directly affects the child and is within the child's immediate environment characterised by direct relationships and interactions. For instance, the teacher in the classroom plays a very important role in the school system since he/she is one of the key persons who can help learners with hearing impairments. Allodi (2000) noted this when he studied the interaction between psychosocial aspects and teachers' attitudes. The study showed that the teacher's latitude has an effect on the climate in the classroom with respect to pupils learning since the classroom environment is controlled directly by the teacher. More so, the teacher is seen as a role model upholding the values and standards of education hence children modeling his/her behaviour. In addition, the teacher takes the central role in the management and support of the education of children with disabilities.

According to Donald et al (2001), what happens at home and amongst the peers can influence the learner's reactions in school. These interactions have a notable influence on adopted teaching practices. Berk (2001) also stated that in the case of children with disabilities, their self-efficacy and educational outcomes are in the first instance influenced by the family in the home setting as beliefs and practices of these primary people in the child's life have a direct bearing on the child's development.

Beyond the micro and mesosystem, is the exosystem. Bronfenbrenner explains it to be consisting of the settings or events that do not directly involve the child but still influence the people the child has proximal relationships within the microsystems. That is, the indirect effect impacts the child through the other people within the child's life. For example, if there is financial crisis in a country due to COVID 19 it affects the child's parents who may not be able to meet the needs of the family.

There will be stress on the family due to financial insecurity language barrier and no supporting the learners with educational materials. Cabbina (2017) in her within this study, these settings or events can be identified as school policies, interactions between the school, community and other stakeholders such as the parents, counselors and other professionals. Even though there is no direct involvement of the child and teacher in these interactions or decision making processes, it

has impact on them because as noted by Bronfenbrenner (1995), it could affect children's academic performance due to its direct contact with the component of their microsystem.

Further, the macrosystem refers to the layer which comprises of political, social, economic and cultural patterns which has great influence throughout the interactions of all other layers. It may be thought of as a societal blueprint for a particular culture, or a broader social context. For example, the constitution of Zambia and education policy of 1996 educating our future serves as a blueprint and makes provision for operations of all educational institutions in Zambia. The constitution guarantees equal access to and a non-discriminatory attitude towards education for all learners. From the ecological perspective, the constitution of Zambia and education policies influences the operations of all the other systems within the ecosystem. This suggests that a broader policy change in the educational system affects other layers in the ecosystem and the application of policies developed like the 2013 education change has an influence on the practice and management of special education system. The macrosystem is out of reach of the children but has an influence on them (Paquette & Ryan, 2001). It looks at policy makers, educational policies, beliefs and perceptions of persons with disabilities by community members. These inclinations set the context for the kind of education they receive which could affect the academic performance of learners with HI. For instance, according to Mandyata (2016), stated that the negative attitudes the majority of hearing people in Zambia have towards deaf people produce inequalities in education that contribute to lower school performance levels.

The last system is the chronosystem, which describes the time frame of development. Swart (2005) describe it as a developmental time frame that crosses through and affects interaction between systems and in turn, their influences on individual development. It is through the interaction among any of the above levels that barriers or support may be present at any time and the change in any part of the education system affects other systems and individuals and at a later time could be seen as a cause for change. Elements within this system can be either external, such as the parents inability to sign; or internal, such as the physiological changes that occur with the ageing of a child" (Paquette & Ryan, 2001). This means that the enrollment age, detection of hearing loss including the onset and study timetable available for studies can influence the development literacy skills of learners with HI.

To understand the activities of a school, one needs to get insight into and knowledge of the interactions that occur amongst the different systems. This is important especially when one is

trying to understand an educational system that when a change occurs in one part of the system, it affects the entire system and thereby impacts educational practice. For example, when there is a change in the curriculum, strategy environment school management system, it affects all those that interact within it. Bronfenbrenner believes that development is reciprocal and has dynamic relationships between the five systems.

1.8 Delimitation of the Study.

The study focused on factors affecting literacy skill development among learners with hearing impairments at Magwero School for the Deaf in Chipata District of Eastern Province.

1.9 Limitations of the Study

The limitations of the study included time constraint was big challenge given the tight schedule as per the graduate school requirement combining with work may adversely affected the product of the research work. It is from this background that independent variable affects the dependent variable, can be understanding that way hence with caution this research will therefore not be generalisation. The community that made up the respondents is of different cultural groups, the home and the hearing impaired. Furthermore, these students with hearing impairment that are enrolled in this school were neither of English nor part of the H I cultural group.

1.10 Operation definition of key terms

Hearing impairment as also known as, Hearing loss, is a partial or total inability to hear.

Literacy skills: are all the skills needed for reading and writing.

Literacy: Learning how to read and write.

Sign languages: Are languages that use the visual-manual modality to convey meaning.

Learning: The acquisition of knowledge or skills through study, experience, or being taught.

Effect: A change which is a result or consequence of an action or other cause.

Affect: Emotion or desire as influencing behavior

Case study: An investigation involving extensive exploration of single unit of study for instance person, family, group, community etc.

1.10 Summary of the chapter

This chapter has covered the introduction of the study, also shed light on the statement of the problem and the purpose of the study, objectives of the study and the research questions which guided the study. Furthermore Significance of the study, the theoretical framework delimitations and limitations of the study were also covered. The researcher ended the chapter with operational definitions of terms used in the study.

CHAPTER TWO

LITERATURE REVIEW

2.0 Overview

According to Kaani (2012) a review of the literature provides information on previous research work and the gaps in research to be addressed without redundant replication. The literature was thematically reviewed according to the research objectives: the factors affecting literacy skills development, strategies employed by teachers in teaching literacy skills development, challenges faced by learners with HI in the acquisition of literacy and measures put in place to support development of literacy skills among learners with Hearing Impaired.

2.1 The factors affecting literacy skills development

Numerous major studies investigating school achievement have reported significant lower levels of attainment in literacy in students with hearing impairment when compared with their hearing age peers (Leigh, 2000). Students with hearing impairment do not perform at age- appropriate levels on tests of ability to read and write the spoken language of the society. Students with hearing impairment, like their hearing peers participate in the literacy events and use written language in many typical ways (Briggle, 2005). However, students who are deaf also use literacy in ways unique to their deafness (Rottenberg, 2001).

2.1.1 Teacher's competency in sign language

Competencies denote a set of conscious, trainable skills and abilities which make a teacher effective. Czerepaniak (2004) conceptualises competencies as developing in the space of practice. Among the competencies identified are communication and the competencies that pertain to didactic and educational skills. To demonstrate such competencies, Czerepaniak (2004) suggests that it would require a teacher to use basic instructional means and measure, including various methods and forms of classroom teaching, learning and course work, adjusted to both the educational goals and educational settings.

The poor performance of pupils with hearing impairment was associated with challenges in medium of instruction-in, consistences in modes of communication, inability to read for comprehension and mismatch in between formative and summative assessment employed by teachers and the Examination Council of Zambia (ECZ) respectively (Chifinda & Mandyata,

2017).Utilizing Sign Language enhances reading and writing development in learners with hearing impairment.

Given the research with hearing impaired children, the National Research Centre of Kenya, (2012) showed poor academic performance among the deaf partially due to the inability of teachers to expose the children more to Sign Language. It is critical that the factors that seem to have effects on the use of sign language and achievement of learners with hearing impaired, are not fully investigated. Chamberlain (2002) in his study on language acquisition by eye argued that reading development is contingent on a fully developed primary language, and that incomplete or inconsistent signed or spoken language may affect the development of reading proficiency.

The teachers also attributed pupil's underperformance in literacy skills and this come specifically to failure by many teachers to competently communicate concepts to the deaf in sign language. For example, in Ndhlovu(2019) research in challenges HI learners face in learning science, revealed that most of the teachers at Magwero School are not familiar with sign language and as a result they avoid attending to learners with hearing impairments even when it is their time to go and teach. Sometimes they use the pupils who are good at sign language to help them explain the concepts to their classmates. The above view did agree with a study conducted by Marrian and Simpson, (1995) and Chifinda and Mandyata, (2017) who observed that teachers of the hearing impaired much depended on pupils where they wrote words on the board and pupils gave them the signs thus the pupil who were supposed to be the learner became the teacher due to adequate sign language skills among teachers.

Skrebneva (2010) in terms of the importance attached by educators on the need for all teachers of deaf learners to know sign language which could be used to assist them to explain new concepts to their learners, especially those who cannot benefit from oral language. In his research Yabbi (2013) who found that most teachers were not sufficiently skillful in sign language. The teacher should have Education in Sign language and similar proficiencies and competences and a holder of a certificate or other award issued by any institution recognized as competent to issue such certificates under the Education Act (1999).

Mbewe (1980), observes that Zambian Sign Language gave children with hearing impairment normal academic development and as such teachers who were assigned to teach the hearing

impaired needed to not only be trained in Special Education, but also Sign Language to enable them to teach literacy skills and communicate effectively with learners hearing impaired learners. Czerepaniak (2004) also holds the view that communication competencies include the teacher's capacity to use various discursive techniques and non-verbal language in communication in educational contexts and to stimulate linguistic sensitivity in learners with hearing impairments.

According to Daniels (2004), French philosopher Etienne Condillac was the first to suggest a link between signing and language development in 1775. Condillac suggested that signing was an effective method for the instruction of hearing children. He also mentioned the work of Thomas Hopkins Gallaudet, founder of Gallaudet University, believed that sign language would increase hearing children's vocabulary and language proficiency (Daniels, 2004). The notion that sign language and language development are linked, therefore, is not new (Daniels, 2004). Petitto et al. (2001) more recently suggested a relationship between sign language and language development. Petitto et al. (2001) argued that sign language can have a positive effect on the language development of children.

Strong and Prinz (1997) studied the relationship between competence in Sign Language and English reading performance and found that even though students with mothers who were deaf outperformed their peer in reading tests, when the levels of Sign Language competency were equivalent for children who are deaf and of hearing parents, there were no differences. They concluded that the acquisition of Sign Language improve the reading for all students who are deaf regardless of parental hearing status. They argue, therefore, that bilingual-bicultural programs for students who are deaf will produce better outcomes in terms of English literacy. They have determined there is a correlation between level of Sign Language competence and English literacy. Utilizing Sign Language enhances reading and writing development in learners with hearing impairment Allen, T. (1986).

2.1.2 The hearing loss

Matafwali (2015) stated that the earlier hearing impairment occurs in a child's life, the more serious the effects on the child's skills development and similarly, the earlier the problem is identified and intervention begun, the less serious the ultimate impact on the child's skills development. Simalalo (2020) hearing loss affects these hearing impaired learners and causes

delay in the development of receptive and expressive communication skills and one of the academic areas that suffer is reading. In his study Paul (1998) observed that the development of reading skills is dependent on the reciprocity between word identification and comprehension. It is well recognized that hearing is critical to speech and language development, communication, and learning for learners with HI. Children with listening difficulties due to hearing impairment or auditory processing problems continue to be an under identified and underserved population.

Chikopela (2019) states there are four major ways in which hearing impairment affects development in children, firstly causing a delay in the development of receptive and expressive communication skills. Language deficit causes learning problems that often result in reduced academic achievement. Communication difficulties can often lead to social isolation, poor self-concept and may impact the child's ability to make choices.

Matafwali (2016) vocabulary also develops more slowly in children who have a hearing impairment. Children with hearing impairment are able to learn concrete words like cat, jump, five, and red more easily than abstract words like before, after, equal to, and jealous. They also have difficulty with function words like the, an, are, and a. The gap between the vocabulary of children with normal hearing and those with hearing impairment widens with age. Children with hearing impairment are not able to catch up without appropriate early intervention in literacy skills development. Children with hearing impairment also have difficulty understanding words with multiple meanings.

Kelly (2000) also revealed that the performance in reading skills were low and in most cases not grade appropriate. Ministry of Education, Science, Vocational Training and Early Education (2008) holds the view that learners with hearing impairments have individual challenges that are influenced, among other things, by their degree of deafness, the age at which they became deaf, their experience of language whether spoken or signed and communication with their families when they grow up.

Children with hearing impairment often cannot hear quiet speech sounds such as “s,” “sh,” “f,” “t,” and “k” and therefore do not include them in their speech. Therefore, speech may be difficult to understand. Children with hearing impairment may not hear their own voices when they speak. They may speak too loudly or not loud enough. They may have a speaking pitch that is

too high. They may sound like they are mumbling because of poor stress, poor inflection, or poor rate of speaking (Bond, D. 1981p.g 19).

In some cases, however due to hearing loss, hearing impaired students may not be exposed to an accessible language for acquisition. For example, hearing loss limits their exposure to spoken language, and children may not have language models for signed languages. They may therefore demonstrate language deprivation because they do not have access to enough comprehensible input to fully develop an expressive language. This means hearing impaired learners may arrive at school without a complex expressive language that can be used for communication or learning, and are therefore best described as dual language learners. Often, hearing impaired dual language learners are simultaneously developing a manual language for communication (i.e., ZSL) as well as English. Because of these unique developmental histories, which often include language delays in the primary expressive/receptive language, hearing impaired students exhibit challenges in learning to write effectively and efficiently (Wolbers, 2010).

2.1.3 Curriculum factor

According to Muzata (2019) curriculum change is inevitable for as long as society keeps changing. UNESCO-IBE (2013: 49) states the enhancement of educational quality and its relevance is the most prevalent agent of curriculum change. In response to this, the curriculum was revised in 2013 by Ministry of Education and the implementation process began in 2014.

The revised curriculum further states that learners with severe disabilities who would not benefit from an inclusive curriculum would have an alternative curriculum while other learners with mild and moderate impairments would benefit from an adapted curriculum and adapted technology. It gave teachers the responsibility of adapting their teaching methods in order to respond to pupils' strengths and weaknesses (MoE, 2000).

According to Nambela, (2016) did an evaluative study of the effectiveness of the Revised 2013 Curriculum on the Provision of Quality Secondary Education in Selected Schools in Kitwe District. She established that the implementation of the revised curriculum was properly done because teachers were not well prepared and had inadequate teaching and learning resources to implement the change.

According to Nambela (2016), teachers were neither trained nor retrained to teach newly introduced subjects. Mwanza (2017) argues that although CDC claims to use consultative and

participatory approaches of involving teachers in curriculum development through subject teacher panels, but there is no empirical evidence to support this claim. According to Mwanza (2017), school teachers in Lusaka were dissatisfied with their involvement in the 2013 curriculum development process because they were insignificantly involved.

Muzata (2019) in his research whether special education teachers were involved in the CPD or not. The results show that largely, Special Education Teachers SETs were generally not involved in the CDP although by nature of their jobs; SETs were implementing the same curriculum. Lack of involving key stakeholders such as teachers in CDP has its own implications in the literacy skills development, on their understanding of the concept of curriculum adaptation, accommodation, modification, methodology and approaches' when teaching learners with hearing impaired.

Matafwali (2020) realized that the curricula do not meet the needs of deaf children because it is like using the curricula for the children who can hear and my child tells me often he does not understand when he uses the text book. Mwanyuma (2016) who found, that the majority of the respondents, (48.2%) reported that the school curriculum was not suitable for learners with hearing impairments. Omutsani (2012) discovered that the curriculum was irrelevant for children with hearing impairments.

Further, the contents of syllabi and reading materials used in the special education school do not help meet the special education needs of students thereby creating a challenge for students to excel in literacy skill development and assessment tests. Curricula contents and textbooks used in deaf education are the same as that used in the regular schools and therefore does not consider the needs of Student with Hearing Impaired (Mandyata 2015). He further stated that student with Hearing Impaired do not learn at the same pace as their hearing colleagues according to most participants, therefore, has an additional level in the section or department to enable teachers to complete the syllabi.

The curricula are bulky and most teachers are unable to cover every topic in them before move to the next level or grade. Omutsani (2012) who found that failure finish the syllabus content was attributed firstly to lack of teacher's efficiency in sign language, followed by the curriculum content being too wide and finally short time stipulated in which to cover the content.

2.1.4 Material Factors

Mandyata (2020) most schools in Zambia face shortages of learning and teaching materials like text books, for example. Some students come from poor economic home backgrounds where there are no reading materials. In some cases the reading materials are inadequate, the teachers have to share text books and at times it is difficult to concentrate for learners, because of sharing end up chatting with another by the time the teacher finishes teaching, the children could have learnt nothing.

Also, Student with Hearing Impaired are unable to make sense out of the contents of textbooks used in their school; this finding is consistent with that of Aidoo. Some students come from poor economic home backgrounds where there are no reading materials. Most students with hearing impairment come from families who do not share their impairment and as a result are disadvantaged linguistically in that their parents are not native signers. In some cases the reading materials are inadequate, the teachers have to share text books and at times it is difficult to concentrate for learners, because of sharing end up chatting with another by the time the teacher finishes teaching, the children could have learnt nothing.

2.1.5 The Family

The MOGE policy has included a number of significant statements about the involvement of parents in the education system. The 1996 Education Policy Educating Our Future states that involvement of parents in their children's education lies with parents. Parents are the key stakeholders who are involved in the education of children with disabilities in Zambian schools in meeting the learning needs of children through Individual Educational Programmes, home work, parents/family park and during open days.

Most students with hearing impairment are born into families who do not share their impairment. From their birth, their experiences are that of minority because even in their families they are surrounded by family members who are hearing. According to Smith (1994), 10% of babies born deaf are born to parents who are deaf themselves. These babies are surrounded by sign language and generally develop Sign Language naturally as a hearing child develops a spoken language. The remaining 90% born to hearing families are realized to be deaf on average around 14 months (Smith, 1994). At this point, some families choose to go and learn sign language and the child begins its exposure to sign language. For those who do not chose to learn sign language their children's first exposure comes later at school, or if educated at a school with oral methodology

where sign language is not used, then later still when they are adults and meet others who are hearing impaired. Hearing impaired children of hearing families are at greater risk for delay in the identification of hearing loss and thus a delay in the implementation of intervention strategies to combat the effects of hearing loss.

Emergent Literacy begins in the very early stages of childhood, and is the beginning of Literacy development, involving such activities as ‘reading’ from pictures and ‘writing’ with scribbles. Matafwali (2020) states the foundation for Literacy development begins much earlier, it starts in the womb from the time of conception. The development is acquired thorough children interacting with adults and older children. Also through a child’s play and experiences with Literacy resources such as stories, songs, rhymes, crayons, pens and paper. Mandyata (2016) A pre-speech baby will use gestures and expressions and babblings to interact with others. The First six years of children’s lives play a crucial part in their development. During this time, children’s brains develop at a astonishing rate. Parents and other family members play a key role in early development, as their children’s first and most important teachers

Early Literacy development is not considered as teaching a child to read in a formal way, it’s about helping children to make sense of their world by developing strong oral language skills. It’s about valuing home language and culture as building blocks, allowing children to explore the world of literacy. It’s about providing lots of positive interactions between children’s older peers and parents. In addition to an environment which is rich in Literacy resources and models language and Literacy for young children to copy.

2.1.6 Financing of Special Education in Zambia

The government has been financing education in general including education of the disabled. However, in its financing of education sector, special education has not been seen as a priority area in the allocation of the available financial resources to support the delivery of such education (Mainza, (2017). Funding provisions to special education sector has been inadequate and erratic to have any significant impact on the quality of education offered to children with special education.

2.1.7 School environments

Students with hearing impairment profit from instruction in highly literate home and school communities where they are afforded a wide variety of models who demonstrate what readers and writers do, what they communicate about and how written language variations, such as face-to-face language encounters, depend upon particular goals and purposes, settings, subject matter, and communication partners (Truax, 1992). Some children with hearing impairment may be doubly disadvantaged by reading environments at home and at school which are less than facilitative.

These students who are hearing impaired are also taught by hearing teachers who are also not native signers. They do not get exposure to deaf models who are native signers. In most cases parents of students who are deaf are never consulted about the education of their children. Maybe it is because of the low educational expectations of both parents and educators. Some implications can be drawn for both teacher training and research, for effective parent- teacher partnerships that lead to consistency and joint problem- solving in promoting literacy development in children with hearing impairment. Erting (2003) makes the case for the critical importance of providing students with hearing impairment the same opportunities hearing children have for language and literacy development by providing accessible classrooms in which they can acquire Sign Language and English. This implies the need for provision of bilingual education programmes.

2.2 Strategies are employed by teachers in teaching literacy skills development

2.1.1 Methodology

According to Chamberlain & Mayberry (2000) children can learn to read if taught by appropriate methods or strategies. It has been experienced that people become teachers in order to help make significant positive changes in learners' lives and teaching children to read is certainly one of those goals. Teachers however, frequently teach what they have been taught. The MoE (2000) in Muzata requires teachers to adapt the teaching methods to meet the learning needs of LSENs. Woolsey et al's (2004) as it also identified that due to the ineffectiveness of institutional methods adopted by special educators, most students complained of not understanding lessons taught in class.

2.1.2 Bilingual approach

Literacy skills have become central to the daily communication and information requirements of students with hearing impairment. In these situations, communication is totally dependent upon their literacy skills and those of their communication partners who, in a large percentage of cases are deaf themselves. Therefore, literacy achievement in as spoken and written language is a challenge for students with hearing impairment (Rottenberg and Searfoss, 1992).

Bilingual approach as stated earlier enhances literacy development (Briggle, 2005). Gregory (1996) defined bilingual education as an approach to the education of students who are deaf which uses both the sign language of the Deaf Community and the written and spoken language of the hearing community. According to Matafwali (2016) educators maintained that although deaf learners should be exposed to sign language, their main means of communication must be oral language especially post-lingual deaf as this will assist their successful integration into the hearing community. Briggle (2005) postulated that providing a developmentally appropriate, print-rich environment in integral to literacy success.

Exposure to competent language models be they teachers or peers, encourages language development. Opportunities to respond and ask questions in class also help. In particular, the roles of Sign Language and of manually coded English need to be clarified so that their combined or separate use maximizes literacy learning opportunities of students with hearing impairment. These students are required to be functionally bilingual to effectively participate in at school and in their community. Evidence from Rottenberg and Searfoss (1992) indicated that children who are deaf use literacy as a way to learn and gain access to a world where the majority of people use a verbal mode of communication. When attempts at signed communication fail, children rely on drawing or writing to express themselves. Students with hearing impairment use Sign Language to communicate, yet they live and interact in a speaking world.

2.1.3 Social Interaction

The social interaction between students with hearing impairment and their educators has a profound effect on academic success (Kuntze, 1998). Students with hearing impairment who have comprehensive access to academic content through a complete linguistic system are able to engage in meaningful communication with peers and instructors allowing them to mediate the

process of conceptual development with others, rather than doing so alone. Bloome and Green (1992) suggested that students who are able to mediate formal instruction via collaborative dialogue with peers and educators are actively facilitating the literacy process. Thus, students who are unable to gain access to such strategies are at a disadvantage. This is the situation with most of the students with hearing impairment. Teaching hearing peers to sign increases the amount of social interaction and directly affects literacy learning skills and development.

2.1.4 Finger Spelling

A similar, more developed strategy is observed as children use finger spelling to record words in print (Padden and Ramsey 1993; Ruiz 1995; Williams 1994). As children make the connection between the finger spellings used in daily communication and the written English language, select, high frequency, personally important words begin to appear in their writing (Padden and Ramsey 1993; Ruiz 1995). Because some finger spelling is part of daily communication using ASL, many children are exposed to a variety of such words from birth. Using these words in written format shows a more developed understanding of the relationship between signed and written language (Padden and Ramsey 1993). Linking language (ASL) with printed text (English) creates a connection that is useful in reading and writing new or unfamiliar words (Padden and Ramsey 1993).

Finger spelling, therefore, should be encouraged as a viable strategy when presenting new words in the classroom. Hearing peers also find this technique helpful for remembering difficult spellings and words. Mandyata, (2011), believes the learners with hearing impairment were supposed to be taught local signs before availing them to national signs so that they benefit from its use a medium of instruction.

2.1.5 Technology

Kalima (2021), Simalalo (2020) and Muzata, (2017) other concepts would need visual aids such as video, film or assistive technology devices to aid learning and enhance the learning of learners with disabilities and explanation of concepts. Lang (2006) many science teachers use textbooks and multimedia, such as movies and television shows, for science instruction. Both the print in most science texts and the captions of science films and television shows are often too difficult for many students who are deaf or hard of hearing to understand.

2.3 The major challenges faced by learners with Hearing Impaired in the acquisition of literacy skills.

The researchers revealed several challenges faced by learners with HI in the acquisition of literacy skills development. The textbooks used by hearing impaired contain complex sentences and words which students in hearing impaired schools find difficult to understand or read. The authors of such textbooks do not take into consideration the learning needs of hearing impaired. Muzata, (2013) Some topics in subjects such as English language and Science are too complex for hearing impaired to relate with or conceptualize and special teachers find it hard to teach certain concepts due to failure to provide signs for them, therefore impairing their performance in these subjects. Ndhlovu, (2008) Special education teachers struggle to arrive at how these concepts can be signed so they just involve themselves in breaking these terms into smaller teachable units or telling the meaning only which is not helpful to the pupil.

The unavailability of these facilities and Teaching and Learning Materials (TLM) made students learn in abstract. Mwanyuma (2016) also found that availability of teaching and learning materials affects the achievement of Deaf learners. Mwanyuma (2016) found that the government did not provide sufficient support in ensuring that teaching and learning materials were available to the school. This, therefore, did not help them to fully understand and retain lessons taught in class in order to reproduce the right answers during assessment tests. Just as opined by Nortey (2009) and Obosu et al (2013), policies used in deaf education are inadequate to ensure that the hearing impaired student benefited from their education.

Szymanski et al's (2013) the findings, students who are hearing impaired were seen as having certain personal characteristics, as one of the major factors contributing to their poor performance. Some of the students had other disabilities which made their educational problems more complex since their educational needs were not met. These health issues affected the way they learnt, their attention during class lessons, attendance in school and their ability to fully participate in or write assessment tests. As a result, they receive very low grades.

Consistent with the findings of Furth (1966), Baker (1972), and Gaustad and Kelly (2004), Student Hearing Impaired face serious challenges when it came to reading educational materials and understanding exam questions because of their poor reading skills, limited vocabulary and their inability to comprehend complex sentences and grammar. As a result of this, most Students

Hearing Impaired were not interested in reading textbooks and other reading materials. They consider reading boring and exhaustive since they are often confused about the meaning of words and sentences in these materials. Engin-Demir (2009) and Adane (2013) found out in their study that the time students spend learning on their own has been attributed to high academic achievements; therefore, Students with Hearing Impairments are not being able to do this contributed to their low achievement of academic skills development.

The inability of parents to provide the required materials for their wards prevented these students from developing literacy skills and improving their academic performance. The children are not able to partake in class exercises and homework as well as get access to the reading materials they need in school.

Reed et al (2008), in his research also indicated that one challenge causing the poor academic performance of Student with hearing impaired was parents' inability to assist them in doing homework and studying. Cohen (1997) and Thou (2014), some parents are not able to assist their children because they have low level of education and do not have the knowledge about school work and could therefore be of no assistance to their children.

Omutsani (2012) who discovered that teachers of learners with hearing impairments failed to complete the syllabuses in various subject areas prior to the final school certificate examination, thereby contributing to the poor performance of learners. In other words, children with hearing impairments are likely to have problems with every aspect of the reading process because lack of sign language communication between them and their parents has great impact on their education.

2.4 The measures put in place to influence the literacy skills development

In order to support the development of literacy skills development for learners with hearing impairment, the governments have implemented both initiatives and frameworks. The department for education have introduced and implemented the National Strategy; within this is the Primary Framework for Literacy. Ministry of Education, Science, Vocational Training and Early Education (2008) has tried to put measures to address the reading problems by introducing programmes to improve reading skills in the reading policy.

In 1997, the Ministry of Education piloted Breakthrough to Literacy (BTL). This course of action was chosen because it is based on a familiar language policy. The following year, BTL was

started at 25 schools. This pilot project was seen as a great success and the Ministry of Education decided that Zambia should continue with the program, using the same methods for teaching initial literacy in the mother tongue. The policy stated that children should begin to read in one of the seven local languages approved by the Ministry of Education. The languages were ciBemba, siLozi, ciTonga, ciNyanja, Lunda, siLuvale or kiKaonde. And learners with hearing impaired to learn using Local Sign language.

A new language policy called the Primary reading Program with the New Breakthrough to Literacy (NBTL) as one of its major components has since been introduced as an intervention measure to improve the reading standards in schools.” The New Breakthrough to Literacy (NBTL) requires grade one pupils to learn using their mother tongue. According to MESVTEE (2003) from the start; the grade one learners see in printed form those words they use every day in their local language. However, despite the governments’ effort to introduce the NBTL reading programme, the grade one learners with hearing impairments are still portraying low performance in reading.

The Ministry of Education (1992) recognizes teachers as being one of the chief determinants of educational effectiveness in that they are the ones who shape children’s intellectual formation and promote their desire and ability to learn. The Ministry of Education goes on to say that as such; teachers should be proficient in the subjects they teach by continuing to be learners themselves, advancing in the knowledge of their subjects and improving their teaching skills and this entails that advancing knowledge would be done through Continuing Professional Development (CPD). This in turn called for initiatives and programmes which would impact heavily on the teaching and learning processes in schools. The teacher input in this case will be through ‘preparation and delivery of effective literacy lessons emanated from teacher’s resourcefulness, which is derived from the training that teachers undergo, both In-Service Teacher Education and Continuing Professional Development’(Ministry of Education 2007).

Mwanakatwe (1973) support the fact that a teacher is not a product of chance and that initial training, in- service education and Continuing Professional Development underpin what the teacher can accomplish in school. This entails that when teachers access a variety of reading and reference materials, their lessons are enriched and subsequently students benefit through improved learning outcomes. In addition, Ndopu (2010 M.Ed. Thesis unpublished), point out

that researchers have supported findings that ‘the academic and professional training of teachers has direct and positive bearing on the quality of their performance and consequently on the achievement of learners. Therefore, the need for Continuing Professional Development is to improve input of personnel and the product, in this case the teacher and the learner respectively.

Further Curriculum Development Centre, 2013:4) states that “the National Literacy Framework has been developed in Zambia for the first time in order to provide a strategy for literacy instruction. It is this reason that the NLF was created to add the quality favour in order to uphold national standards or outcomes of literacy instruction which have been found to be low for a long time (Mkandawire, 2017; Chansa-Kabali, 2017; Matafwali & Serpell, 2014)

Wakumelo and Miti, (2010),equally called for a new instructional language policy on the learning the hearing impaired, a policy that requires such children in pre-school and lower primary classes to receive lessons in localized signs facilitating an easy shift to a more official form of sign language. This had the potential of enhancing initial literacy in sign language just as it was the case in other Zambian languages.

In addition the 2013 revised curriculum introduced early childhood education, instruction through a familiar local language policy at Grades 1-4, a two-career pathway system of academic and vocational subjects and an integrated subject arrangement (MESVTEE, 2013; Tuchili & Kalirani, 2014). With particular reference to learners with deafness, the revised curriculum introduced sign language as a subject to promote the literacy learning at primary school level. Further, the revised curriculum recognises that student teachers in teacher training institutions should be exposed to adequate knowledge and skills in Sign Language. Mandyata, (2011), believes the hearing impaired needed to be taught starting with the support of local signs before exposed to national signs for them benefit from its use a medium of instruction.

Matafwali (2015) states clearly captured in the 2013 curriculum is the introduction of sign language as a subject at primary school level and as a compulsory course at teacher training level. (Frank et al., 2004) argue that Zambian Sign Language (ZSL) is best for the deaf community in Zambia and that a child with hearing impairment is best prepared for a productive life when Zambian Sign Language is taught as the primary language of instruction.

This local language policy created opportunity for sign language interpreters and create a shortage of sign language interpreters in terms of quality and quantity. To ameliorate the

shortage of Sign Language System facility, the Ministry of General Education (2011) in its educational policy proposes the provision of necessary facilities and equipment to enable persons with disabilities to fully benefit from the public educational institutions (MoE, 2000). This seems to be a welcome development as it denoted that the Ministry of General Education would endeavor to facilitate the provision language in form of Sign Language to deaf students to enable them access tertiary education.

With particular reference to learners with deafness, the revised curriculum introduced sign language as a subject to promote the literacy learning at primary school level. The syllabus for sign language grades 1-7 was produced as a result of the Curriculum policy review direction process carried out by the Ministry of Education, Science, Vocational Training and Early Education under the auspices of the CDC. The syllabus covers Grade 1-7 topics which include general outcomes in developing sign language, observing, reading and writing skills. The general aim of the sign language syllabus is to enable learners with hearing impairment gain/acquire literacy competences that would enable them function comfortably in society.

The USAID Let's Read Project works with the Zambia Ministry of General Education (MOGE) to improve reading outcomes for approximately 1.4 million children in pre-primary through Grade 3 in public and community schools, which started in January 2019 and will end in 2024. The ultimate goal of the project is to ensure that students read with comprehension and fluency in one of Zambia's seven official local languages of instruction. USAID Let's Read is implemented in over half of all public primary and community schools in Zambia. Over the past decade, reading assessments for early grades consistently show that over 70 percent of children are unable to read or write at the end of their second year of learning (2014 Early Grade Reading Assessment).

Enrolment in primary schools in Zambia doubled from 1.6m in 2000¹ to 3.2m in 2015.² But being in school does not mean that children are learning well. The 2014 national assessment found that 68% of grade 2 learners were unable to read a single word in their local language, and average scores for grade 5 learners were 37% in local languages and 38% in mathematics. Students follow a learner-centered programme which includes interactive group work at the child's level. This programme has been proven to be effective in India and in Ghana also showed positive impacts in Kenya. The Ministry of General Education with support from partners

including UNICEF and the Abdul LatifJameel Poverty Action Lab (J-PAL) is piloting the Teaching at the Right Level methodology in the Catch Up programme in grades 3, 4, and 5 in schools across other districts. Process monitoring of the pilot was conducted by Innovations for Poverty Action (IPA).

And in 2014 the Catch-Up literacy and numeracy programme was implemented in Zambia andthe goal of the project is to deliver a pilot to improve pupils' learning outcomes through a targeted, teaching-at-the-right-level (TaRL) approach. The approach aims to rapidly improve the literacy and numeracy results among learners in Grades 3 to 5 by grouping learners according to learning levels rather than age or grade.

Catch Up Literacy uses a book-based approach to support learners in their reading of a book so they activate both dimensions of reading, word recognition processes including phonics and language comprehension processes. It is suitable for all struggling readers hearing impaired learners whose Reading Age is significantly below their Chronological Age and is designed for use with struggling readers aged 6-14, rather than beginner readers.

1.6 Summary of the chapter

In this chapter an attempt has been made to review the related literature on factors affecting literacy skills development, strategies employed by teachers in teaching literacy skills development, challenges faced by learners with HI in the acquisition of literacy and measures put in place to support development of literacy skills among learners with Hearing Impaired. From the literature reviewed, it appears, are factors affecting literacy skills development at Magwero School for the Deaf. These factors are what this study sought to address at this special school.

CHAPTER THREE

RESEARCH METHODOLOGY

3.0 Overview

This chapter was endeavoured to cover the research methodology of the survey which included the research design, study population, study sample, sampling procedure, research instruments, and data collection procedure and data analysis.

3.1 Research design

The study employed mixed methods where both qualitative and quantitative techniques were used. The use of both quantitative and qualitative paradigms in a study increases the quality of the final results and provides a more comprehensive understanding of the phenomenon being studied in that the results obtained by the use of one paradigm could be elucidated by the use of another paradigm (Greene et al., 1989). However, the case study design largely underpinned the study. In this case the single unit of study was an institution, Magwero School for the Deaf. As stated by Merriam and Simpson (1984), a case study tends to be concerned with investigating many, if not all, variables in a single unit.

In this case study of Magwero School for the Deaf, the twelve teachers of students with hearing impairment, together with their three supervisors were part of the population. The five parents and ten of the learners with hearing impaired also constituted the population. Magwero School for deaf was purposively selected for the study because it exhibited characteristics of interest to the researcher. It was the learners with hearing impaired at Magwero Deaf have difficulties in comprehend and produce shorter signs and simpler sentences than children with normal hearing. All the fifteen educators, that is twelve teachers and three administrators were purposely sampled and made part of the sample due to small numbers also because the scores of the subjects they are teaching are among the subjects used to determine the grading of literacy skills development results. Convenient sampling was used to select the five parents from the all the parents. Questionnaires, interviews and lesson observation were the data gathering tools used on the bases to allow in depth investigation of the effects of home and school environments on factors affecting literacy skills developments among learners with hearing impairments at Magwero Deaf.

3.2 Target population

The total target population was thirty at Magwero School for the Deaf, which composed of all teachers, administrators, learners with hearing impairment and parents of children with hearing impaired. This population was targeted because it had the characteristics and the knowledge that was relevant to the study. Creswell (2005) states that population consists of a group of elements which could be individuals, objects or even elements that pertain to what the researcher embarks to generate the results for the research.

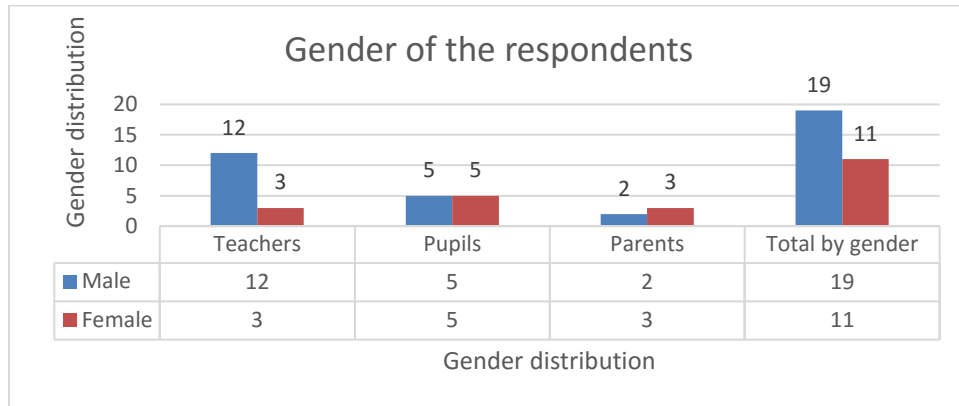
3.3 Sample size

Kaani (2020) stated the word sample is a selected group of subjects or respondents who participate in a given study. Ndhlovu (2020) provides a description of the actual number of subjects, respondents or participants that it should not be more than 30 for a case study. The sample for this study comprised thirty respondents consisting of twelve teachers, three administrators (Head teachers, Deputy Head teacher and senior teachers), ten hearing impairment learners and five parents of children with hearing impaired.

Figure 1: Gender characteristics of the Sample.

Teachers, Parents and learners were asked to indicate their gender. In this study gender was important because females spend more time with their learners and parents with their children than males and they are likely to help their children than males. Also by culture young parents are also likely to be interested in their children's language skills than older parents. Figure 1 below shows their responses.

Figure 3.1: Gender of respondents

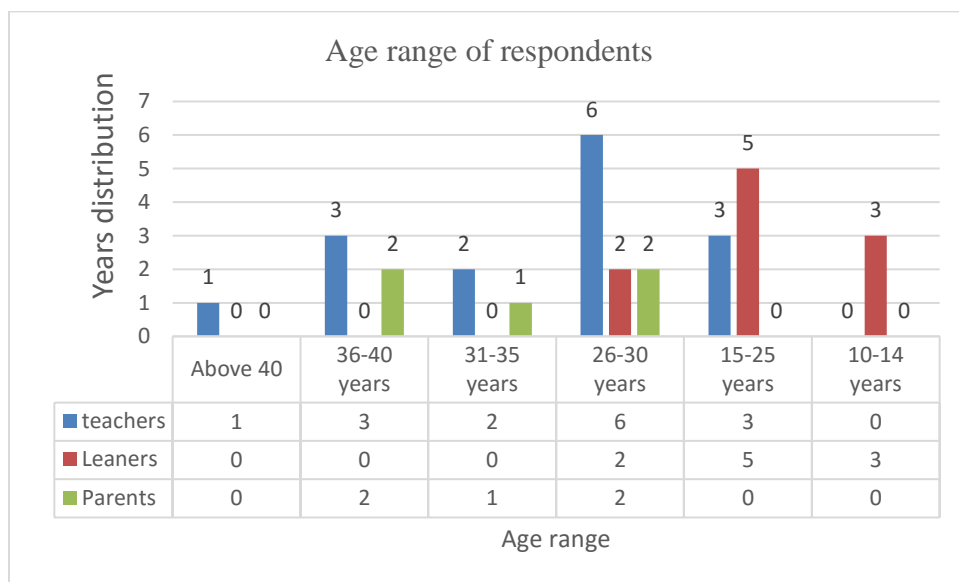


The table above shows that of the 15 teachers, male 12 teachers and only were three female, Pupils it shows that out of ten, five were male and five female and out of five parents respondents the table shows two were male and tree were female, respectively.

Age of the respondents

Teachers, Parents and leaner's were asked to indicate their age. In this study age was important because by culture young parents are also likely to be interested in their children's work than older parents as well as the teacher experience also contribute to the acquisition of literacy skills development. Figure 2 below shows their responses.

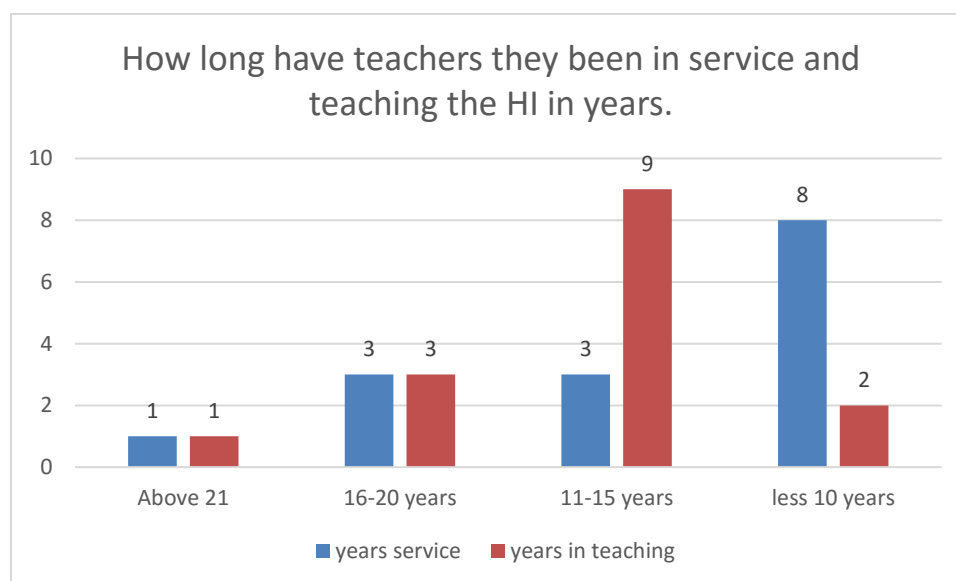
Figure 3.2: Age of the respondents



The figure above shows that most of the teachers (6) were aged between 26-30 years old, learners (5) were most in the aged between 15-25 years old and parents had (2) in aged between 36-40 year and 26 – 35 years old respectively.

How long teachers have been teaching the HI and Years in service.

Table 3.3: Teachers' in service and years in teaching HI learners.



The figure 3 above shows that most of the 8 teachers indicated that they served less than 10 years and 9 indicated that they have taught between 11-15 years.

3.4.2 Teachers highest professional qualification

As regards to the highest professional qualification that teachers possessed, Table 3.4 shows teachers responses.

Table 3.4: Teachers highest professional qualification.

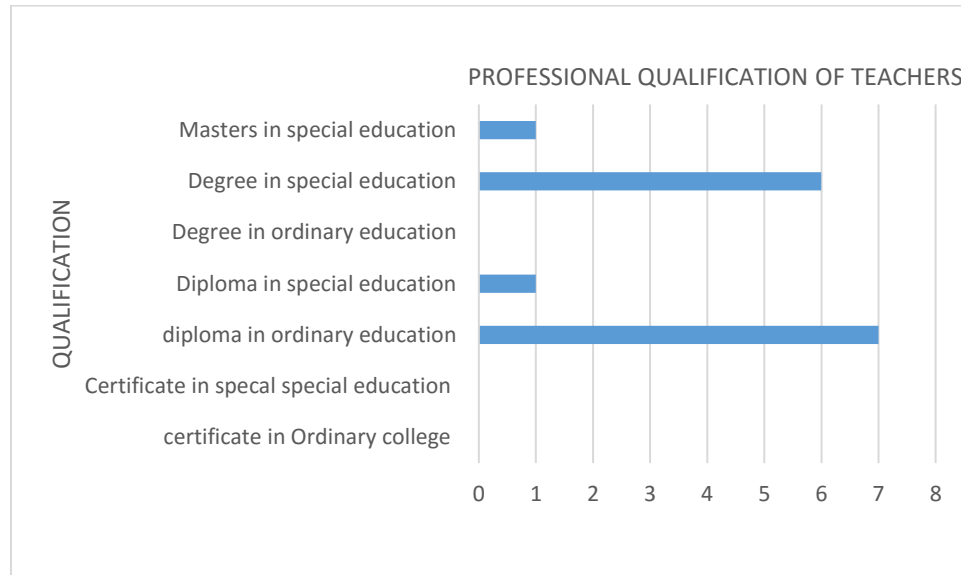


Table 3.4 shows teacher's responses that most of the teachers have ordinary qualification. 7 teachers have diplomas in ordinary education, 6 have degrees in special education, 1 has diploma in special education and 1 has a Masters.

In this study highest professional qualification of teachers' respondents was important because the teachers with the highest qualifications were believed to have rich knowledge and wider understanding better literacy skills development.

3.4 Sampling procedure

The researcher used convenience, purposive and stratified sampling techniques were used. The reason for selecting the above mentioned sampling methods is that both techniques involved the nearest individuals who are the only ones to serve as prime respondents to whom researcher was having easy access and it was economically convenient. This study used purposive sampling to select the three administrators. The reason for selecting these school administrators was that by virtue of been administrators they had very rich information and experience for the study and 12 teachers were selected through a stratified random sampling to minimize on research biasness. To have an equal representation from the selected teachers two lists of Yes and No were created and put in a box then randomly teachers were picked to come up with the sample. The main reason for using this sampling procedure was that Magwero School for the Deaf had 21 special education teachers hence giving very one of them a chance to participate in the study.

Furthermore 10 learners with HI participated in the study, were purposefully selected because the School had lower classes middle, junior classes and upper classes. The grades 5 to 12 were targeted to participated in the study. The convenience sampling was used to select the five parents of learners with hearing impaired.

The researcher used the questionnaires and an interview schedule teachers and while the interview schedules were used to capture data from administrators, pupils and parents.

3.5 Data collection Instruments

The data collection instruments used in this study were questionnaires, interviews and group discussion, lesion observations as tools of which the questionnaires were used to collect data from the teachers. Questionnaires were used on teachers because of the ability to provide an opportunity for special teachers to think through the questionnaires and answer the questions without coercion. On the other hand closed ended questions are flexible and were able to seek the opinion of the special education teachers by guiding them on what to choose.

Questionnaires are a set of questions carefully and thoughtfully prepared by the researcher to solicit for information from the respondents (Kombo and Tromp, 2006). Depending on the audience or the subjects, questionnaires may have both open ended and closed ended questions. Cohen et al (2000) stated that open ended questions are those questions which seek the opinion of the respondent by allowing him or her to freely express oneself.

Interviews done used to get data from the administrators and the parents. Face to face interviews provide an opportunity for a researcher to discuss with respondents on the challenges faced by learners on literacy skills development and other sections. Cohen et al (2006) indicated that during face to face interviews, a researcher asks respondents questions. As the respondent provides answers, the researcher make follow up questions in order to clarify a point. Furthermore, the researcher makes observations in order to determine whether the respondent is telling the truth or not.

The other tool used in this study was a focus group discussion guide. Burke and Christenson (2004) explained that focus group discussions are important in research because the researcher interacts with the respondents. The researcher identifies some participants in the study. He or she asks the discussants questions. The learner's respondents in a group discussion were free to

argue and share their independent views about the subject matter. The researcher also clarified a number of other issues during the discussion and provided an interactive event that stimulates participants which helps the researcher to obtain highly detailed and specific group data that meet the research objectives that cannot be acquired by just questionnaires since they have difficulties in reading and understanding the words.

3.6 Data collection procedure

The questionnaire will be self-administered at the school of abode. Items in the questionnaire were clearly explained to the respondents before they are made to provide any necessary responses to the items. This ensured consistency and accuracy of responses of the teachers, administrators and pupils. The questionnaire was administered and collected on the same day other questionnaires on the following day. This was done to ensure I get accurate and maximum return rate.

The interview research questions scheduled for parents of children with hearing impairment who come to fetch their children home after school. Most parents were met after picking their children during school days and others were followed at home. Self-administered questionnaires were administered to special education teachers and interview guides to administrators and pupils during school time. These were collected later for data analysis.

All the respondents answered the questions completely and expressions were found to be meaningful and understandable. Kombo and Tromp (2006) explained that under this subsection, a researcher needs to show what happened in the process of collecting information.

3.7 Data analysis

According to Kaani (2020) this is crucial step in proposal, as to how collected data will be tabulated and organized for the purpose of further analysis is to be reported in this section.

Data was analyzed both qualitatively and quantitatively. Qualitative data was analyzed using thematic analysis. Description of each theme was done and interpreted critically and objectively. Quantitative information collected from the questionnaires was coded and presented using computer software called Microsoft excels to tabulate information. Simple pie charts and figures were used to help appreciate percentages and frequencies.

Furthermore information collected from qualitative data, that is, from interviews and focus group discussions, was grouped in themes to provide descriptions to explain what was said by the respondents in response to particular themes.

3.8 Ethical considerations

The study was conducted in an ethical way protecting anonymity, participants' rights, confidentiality and autonomy. This was insured by not allowing respondents to write their names on questionnaires unless where respondents willfully considered to using such information in order to illustrate a point during discussion. Jack and Norman (2003) states that planning in a study researcher have the responsibility properly and ethically the concerns of the study. This helped to minimize fears of victimization and promoted honesty among respondents in the way participants responded to questions.

The respondents were also informed in advance that the questionnaires and interviews were intended to collect information for a specific academic purpose and for other purposes which were likely to infringe on the rights of individuals of participating in the study. Ndhlovu (2020) states that researchers have a clear responsibility to ensure that they recognize and protect the rights and general wellbeing of respondents' regardless of the nature of the research been carried out.

This helped to ensure confidentiality during data collection and reporting of the finding. The researcher obtained consent for recording the discussions with participants using a phone voice recorder and writing on note pad and observations were recorded on an observation sheet during teaching time.

3.11 Summary of the chapter

This chapter covered the methodology used in the study.

The chapter described the location of the study, which was Magwero Schools for the Deaf in Chipata District in Eastern part of Zambia. The study employed mixed methods where both qualitative and quantitative techniques were used. The thirty participants were selected using the purposive, convenience and stratification sampling technique. The chapter further described the researches instruments used which were self-administered semi structured questionnaire for special education teachers, interview guides were used by administrators and parents and focus group discussions were held with Hearing impaired learners.

This chapter considered also covered the data collection procedures, data analysis, and ethical considerations of the research ethics for the study were also discussed.

CHAPTER FOUR

PRESENTATION OF FINDINGS

4.0 Overview

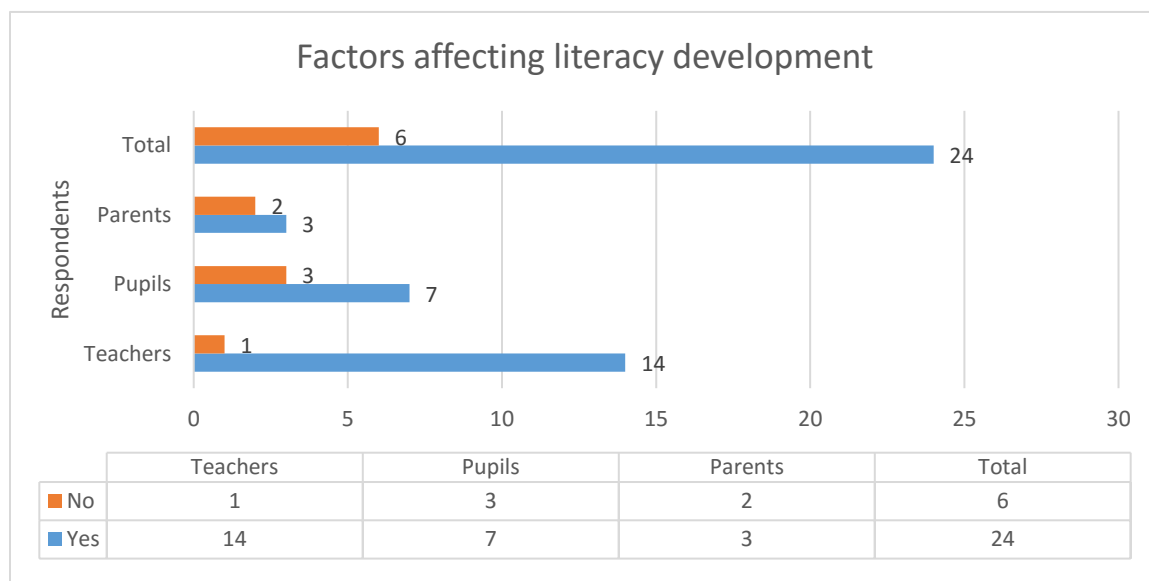
The study was guided by three objectives; some themes generated from various research instruments used were also used to provide specific responses from the respondents. The objectives of the study were: to identify factors affecting literacy skills development among learners with hearing impairment; to determine which strategies are employed by teachers in teaching literacy skills development; establish challenges faced by learners with HI in the acquisition of literacy skills and examine measures put in place to support development of literacy skills among learners with Hearing Impaired.

The administrators and parents were subjected to interviews and learners with focused group discussions in order to get an understanding of the aforementioned areas. Special education teachers were given the questionnaires.

4.1 Factors affecting literacy skills development among learners with HI

The first question was to identify factors affecting literacy skills development among learners with hearing impairment. The responses were shown below.

Table 4.1 Factors affecting literacy skills development



The above table shows that out of thirty respondents, 14 teachers indicated that they were factors

affecting whereas 1 indicated no factors, 3 Pupils indicated that they were factors affecting whereas 3 indicated no factors, 3 parent indicated that they were factors affecting whereas 2 indicated no factors. It therefore shows that the majority twenty four (24) of respondents indicated that were not aware that there were factors affecting literacy skills development among learners with hearing impairment, a small proportion of six (6) indicated that they are not aware that they were factors affecting literacy skills development among learners with hearing impairment.

The following is the summary of some of the responses when they were further asked to list the factors affecting literacy skills development;

Language of instruction, inadequate teaching and learning materials, high teacher to pupil ration, No specialized room, lack of comprehension and missing out of words on the learners part, Lack of coordination of signs and words on the learners, sign Language barrier when pupils are at home, Late school entry, lack of Pre-reading and other books in sign language, the curriculum is not supportive, Curriculum no flexible, need more time, and no syllabus for such children.

The teachers also attributed pupil's underperformance to failure by many teachers to competently communicate concepts to the hearing impaired in sign language. For example, in response to an interview question, one of the pupil said this when asked how competent the teachers were in sign language;

Furthermore the administrators were interviewed and asked on that are the factors affecting literacy skills development at Magwero deaf, the following are some of the responses:

Administrator 1 said the following:

Most of the teachers at this school are not familiar with sign language and as a result they avoid attending to as even when it is their time to teach as we see them being in the staff room consulting from their fellow teachers for certain signs in the topic they want to teach.

Further stated that;

In this school all the books are in words print without signs that means on a daily basis I have to look for sign to interpret in sign language when teaching them for the learners to be able to read and understand the words. This does create an overload on the part of us teachers and pupils

because they have to assimilate the new words then consume a lot of time and create a lot of work for us.

Additionally another administration said:

Very few teachers and teacher to pupil ration is too high in the school, imagine the school has 17 teachers against thirteen (13) class starting from pre-school to grade twelve.....how can we teach these skills?

Administrator 2 said:

Naturally because of their nature, our HI pupils find it difficult to comprehend clearly the meaning of words and sentences that are written in English. But I personally see them do well in practical subjects because these subjects do involve much of textual information. They find it difficult to read sentences, interpret the meaning of the sentence and respond in prose form.

Administrator: *“No books in sign language to be used for teaching literacy skills development.*

Late school entry, Pupils start school late hence they have poor memory which affect the literacy”.

Administrator 3 said:

lack of Pre-reading books, most of the books are in local language phonics which need to be taught these books do not favors the hearing impaired learners as while as lack of trained pre-school special education teacher. If they are trained as I have been told that ZAMISE is training, they are not posted to special schools because I have not seen one since 2010 when I come here at Magwero School for the deaf.

Pupils were also interviewed and said:

One pupils said:

Our teacher has bad sign language, if they come to teach us sometimes they use our classmates or the pupils in other classes who they think are good at sign language to help them sign the words and explain the concepts. Sometimes teachers spend more time in class trying to look for signs for certain words than they do when explaining the subject matter.

The other learner said:

“My class teacher does not know sign language they just like writing notes on the chalkboard without explaining the meaning of the notes. Some others teachers just talk with their telegraphic signs the lesson without making any attempt of using sign language”

One female learner respondent commented that;

“At this school, some of the teachers tell us that they are not trained to teach the learners with hearing impairment and have a problem to read what we write they say it does not make good sentence. For instance when it comes to marking class work and tests, in most cases my work is not marked because our teacher cannot read”.

One male teacher indicated that;

“I can say it’s due to high-pupil-teacher ratio at this school because few teachers, most of the time we are told to combine classes of learners with different abilities, as you know one learner is equal to ten. I have difficulties in explaining the details of what is highlighted on the board instead of using my individualised education Plan (IEP)”.

For example one male teacher indicated that;

For school equipment’s and material such as sign charts, posters, sign language DVDs or hearing aids are lacking, we depend on the funds from the government and nongovernmental organization to cater for all the needed equipment’s and materials. Hence, this has a negative impact on effective implementation for any literacy skill acquisition.

One teacher indicated:

Lack of sign language skills for both the teachers and pupils due to inadequate teacher trainings including the attitude of teachers towards sign language they feel sign language is a difficulty language to learn and teach.

Another teacher indicated that:

Pupils use different signs from other schools which they come with and at times they don’t know any signs and have limited sign due to sign English

Language barrier when pupils are at home.

Lack of special methods in teaching literacy skills and no embracement of technology at school

Teacher indicated that;

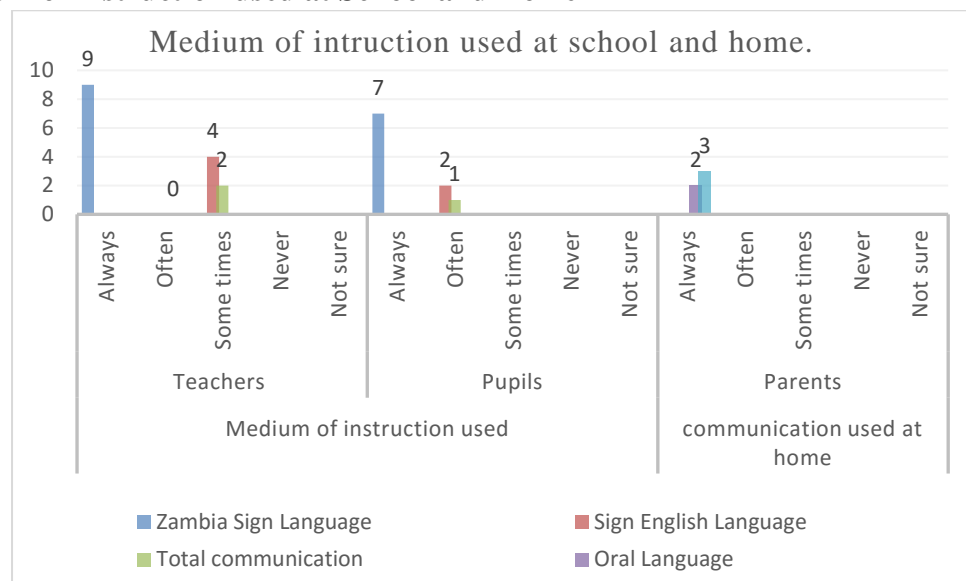
The curriculum is not supportive, not flexible to support the literacy skill development and the misalignment of the education of education policies.

And the teacher also added to say:

I think that affect the acquisition is the learners are slow. Learners are very slow need more time and own syllabus including the curriculum.

4.1.2 The medium of instruction teachers use to teach literacy at school and parents used to communicate at home.

4.2 Medium of instruction used at School and Home



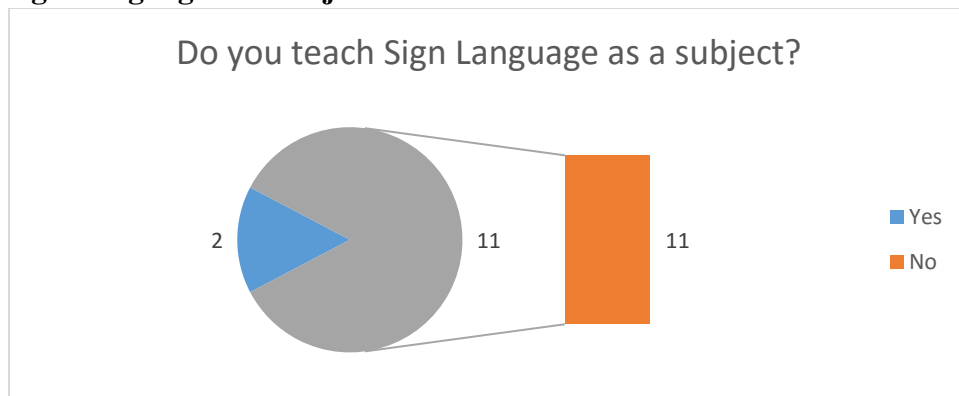
The figure below reveals that the majority of the teachers 9 always preferred to use Zambia sign language instruction in teaching learners with hearing impairments. The second sometime preferred classroom medium of instruction was signed English language and 2 indicated sometime use total communication. Pupils were also interviewed on that language of instruction teacher's use as a medium of instruction, 7 said teachers use Zambian Sign Language always, 2 said teachers use signed English often and 1 said they use total communication.

The parents were further interviewed on that medium of instruction do they use to communicate with their children and 3 use home/traditional sign language whereas 2 said they use Oral language.

4.1.3 Whether teacher teach Sign language as a subject.

Teachers were asked to indicate whether they teach Sign Language as a subject and to indicate why it is not taught as a subject to the learners with hearing impairments. Table 4.3 shows there results.

4.3 Teach Sign Language as a subject.



The figure above shows that the majority 11 teachers indicated that they don't teach Sign Language as a subject and 2 indicated that they teach sign language.

4.1.4 Reasons why sign language is not taught as a subject

The researcher further requested the teachers to indicate why sign language is not taught as a subject. Their responses were summarised as follows;

The Zambia government has not yet accepted Zambia Sign Language to be a subject, there is no syllabus for it at school level, the difference between Signed English and Sign Language, we follow normal syllabus Sign language is not part of the syllabus and the curriculum does not provide us to teach literacy skills, no books for such because there is mismatch between the curriculum, the instructional and teaching methodology used and no Sign Language policy direction.

Interviews with administrators revealed the following as regards why sign language is not taught as a subject at Magwero School for the Deaf.

One male administrator said:

“On that I feel Sign Language at Magwero here it is not taught as a subject on its own but it’s included when teaching in all our subjects. As a language for the deaf it only taught when teaching other subjects as we follow normal syllabus”

Another female administrator said:

“The government is not interested in Sign language as a language. This is what has made it not to be taught as a subject at the sometime it is because Sign Language is not examinable like Cinyanja or icibemba for the so called normal learners”.

Another administrator added that:

“It is because learners can’t read, can’t write, cannot develop literacy skills and learners cannot answer simple question, so why should we teach them they are naturally hard to teach because of their disability they cannot hear sounds how do we teach sounds, phonetics or rhymes ..?”

Furthermore the female administrator also responded that:

“Sign language was not taught as a subject because we follow the normal syllabus where there was no provision specifically for the sign language vocabulary building which may be in pre-School or grade one learners with hearing impairments”.

4.1.5 Pupils reasons as to why Sign Language is not taught as a subject.

Pupils were interviewed as to why sign language is not taught as a subject. Their responses;

All the pupils were saying they don’t know why they don’t learn sign language as a subject like our friends at Magwero Standard School do in their language.

One pupil added that:

“We don’t even have a Sign Language club here at school. The teachers are not helping us in Sign Language”.

4.1.6 Whether teachers were trained in Sign Language

Administrators were interviewed and Teachers were asked to indicate whether teachers were trained to teach Sign Language.

Table 4.4 Whether teachers were trained in Sign Language



The study shows that of the fifteen, 8 (53%) respondents agreed that the teachers were trained in Sign Language and 7 (47%) disagree that the teachers were trained in Sign Language.

A male administrator said:

“Only a few teachers have had specialized training in special education and sign language in particular.

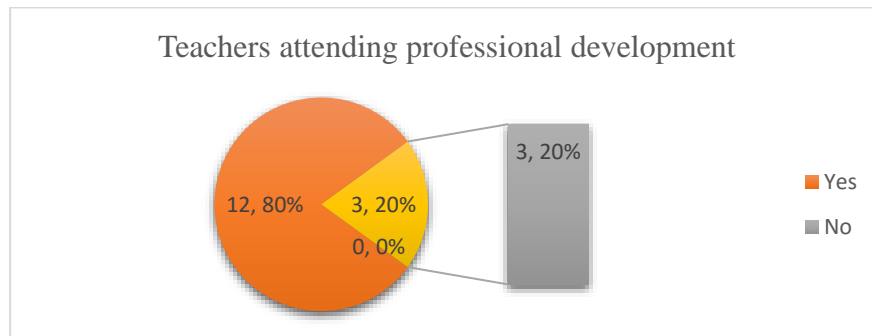
Another female Administrator said:

“Most of the teachers who are posted to this school especially in the upper section are usually those trained as ordinary teachers. Just have interest to teach our learners and we usually assist them to write a recommendation letters so that during deployment they are considered and to stay here as we did to the five teachers. As a result, these teachers tend to encounter a lot of challenges in communicating in sign language and teaching these hearing impaired learners. Some are even used as tools to read for their friends rejected by the pupils because of heavily relying on oral communication when delivering the subject content.

4.1.7 Whether teachers attended any Continuing Professional Development Meeting

Teachers were required to indicate whether they had ever attended any CPD meetings on reading for the learners with hearing impairments. Their responses were as illustrated in Table 4.5.

4.5 Teachers attended any Continuing Professional Development Meeting



The figure below shows that the majority 12 [80%] of the special education teachers had attended any Continuing Professional Development meetings on reading for the learners with hearing impairments institutions and 3 indicated not attended any CPD.

However, in response to one interview questions, the school administrator said;

Some of our teachers had prior training in sign language before being deployed to the school *as a school*,

The male administrator said:

“We try to help them by teaching basic sign language through CPD programs like teacher group meeting TGM, workshops and other meeting like attending Special Education Association (SEAZ) conferences. Other teachers are doing Special Education through distance learning at UNZA, and ZAMISE.

4.1.8 Whether they use the sign language syllabus to teach literacy skills development.

4.6 If they use sign language syllabus to teach literacy skills development.

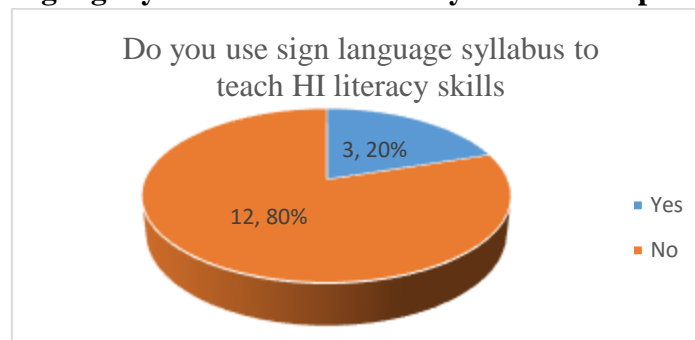


Figure 4.6 shows that 12 (80%) indicated they don't use sign language syllabus to teach literacy skills development whereas 3 indicated they used it to teach literacy skills.

The female administrator also responded that:

As already said there are no syllabus for sign language yet for hearing impaired. We are still waiting for the Ministry of Education to produce as they did to the other group.

The other female administrator said:

In Zambia there is no syllabus for Sign Language hence we don't use Sign Language Syllabus when teach literacy skills to learners with hearing impaired. Sign language is a form of communication until the government tells us to prepare our own syllabus.

The male administrator said:

Since I started teaching I have never used the Sign Language Syllabus when teach literacy skills. Sign language is a form of communication until the government tells us to prepare our own syllabus.

4.1.9 If they use real sign language books when teach literacy skills to learners with hearing impaired.

4.7: If real Sign Language books are used to teach Sign Language.



The figure shows that the majority 14 (93%) out of fifteen (15) indicated that they did not use real sign language books to teach literacy skills to learners with hearing impaired at Magwero Deaf. Whereas 1 (1.7%) indicated they do teach using the Sign language books.

4.1.10 If the teachers used real books to teach reading skills to learners with hearing impaired.

Administrators were interviewed whether they use real sign language books to teach literacy skills to learners with hearing impaired.

Their response was as follows:

The male administrator said:

We don't use real sign language books when teaching literacy skills to learners with hearing impaired. Sign language is a form of communication and not a subject we are told to modify.

The female administrator said;

We modify the content so we don't use real sign language books when teach literacy skills to learners with hearing impaired because there are no books in sign language for us to use them.

The other female administrator said;

So we don't use real sign language books when teach literacy skills to learners with hearing impaired, I will repeat that sign language is a form of communication and not a subject we are told to modify. We modify the content so we don't use real sign language books when teach literacy skills to learners with HI because there are no books in sign language for us to use them.

A further question was asked to teachers on how do they improvise materials and the following is the summary of that teacher indicated that:

by giving them passages in English then interprets the print books into Sign Language for them to understand; I use word cards, picture cards, diagrams, text book, story books, wall charts, games; modifying the ordinary materials to befit the hearing impaired; I use ordinary books but have intense preparation especially breaking of words into synonymous and simple for the deaf to comprehend; no material improvisation one has to teach abstract the teacher has to learn Sign Language and teach the HI; we teach using local materials by some times modifying them others not.

The administrators were further asked that they do to curb the situation. The following were their responses:

The male administrator responded that:

As a School administrator I usually encourage teachers to improvise the teaching and learning materials by making local materials.

Another female administrator said:

The Ministry has not done much of the support, as a School we purchase text books and teachers are encouraged to be resourceful by improved through TALULAR which is Teaching and Learning Using Locally Available Resources". During Teacher group meeting the teachers make only teaching and learning aid.

The other female administrator also responded that:

It is a very difficult situation; the government wants us to do everything through improvisation. Look! but teaching and learning aid are very expensive to buy as an individual teacher or as a School and difficult to find in Zambia. So the school mostly relies on teachers' creativity.

4.1.12 Whether teachers and pupils used the School library to source reading materials and teaching reading skills.

As regards to the use of resource School library by the teachers and pupils to source reading and materials for teaching reading skills to the learners with hearing impairments, the teachers' responses were as shown in Table 4.8.

Figure 4.8 If School library is used to source materials.

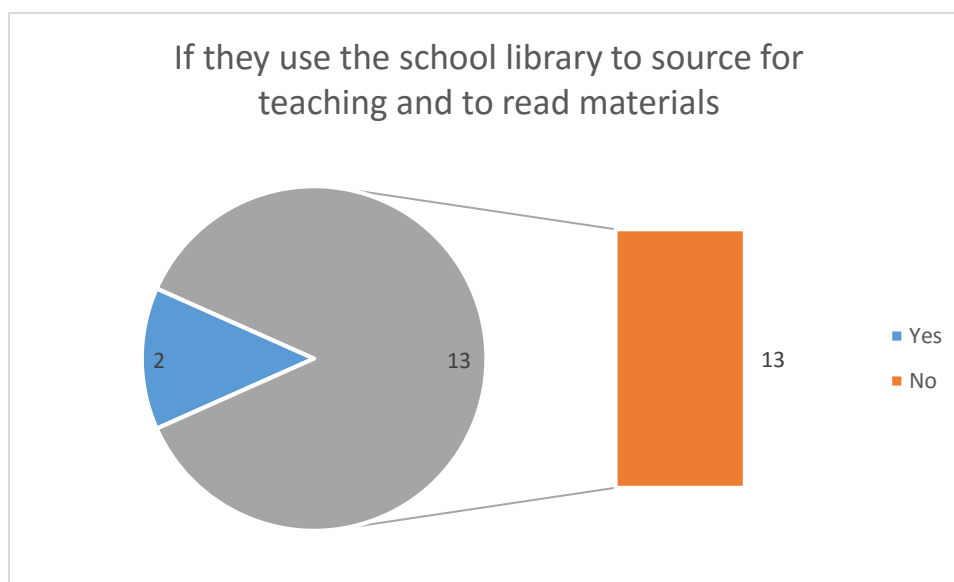


Table 4.8 shows that majority of the teachers 13 indicated that they don't use the school library and only two indicated they do use the library.

The pupils said:

“There are no story books in the school library for us to read and the room is also used as an Art room”.

One of the administrator said:

“The books which are in the school library were donated by western countries, they are not part of our syllabus hence making it impossible for us to source reading and materials for teaching and this has impacted negatively on the learners reading culture”

A further question was asked in terms of how they rate the usefulness of School library they all indicated that it was useful source for teaching and reading materials for the teachers and pupils with hearing impaired.

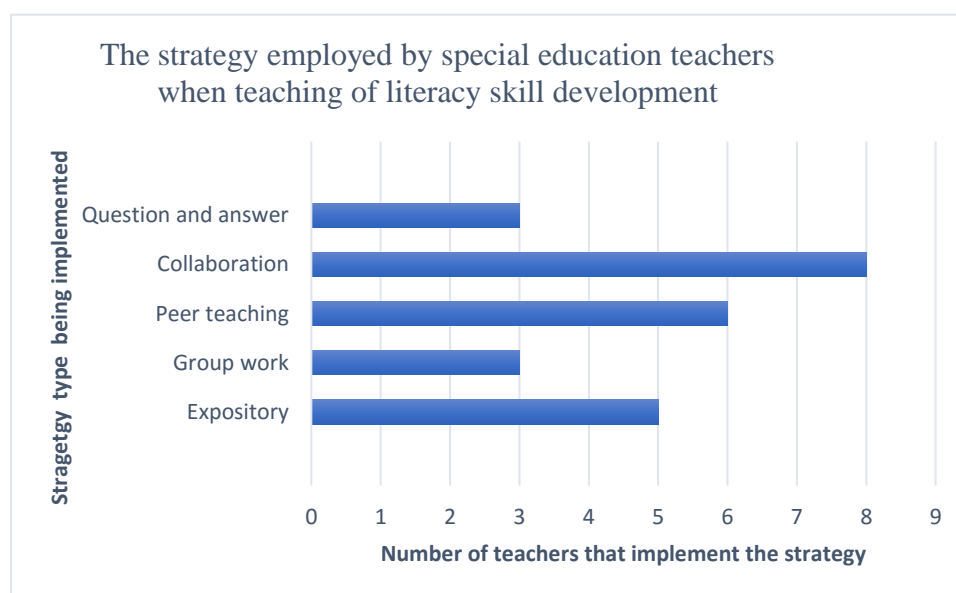
4.2 The strategies employed by teachers in teaching literacy skills development

In order to determine which strategies are employed by teachers at Magwero School for the Deaf in teaching literacy skills development, data was collected from the Administrators and special education teachers of the Learners with hearing impairments.

4.2.1 The strategies mostly used by teachers in teaching literacy skills development.

The chart below shows the strategies mostly used by teachers in teaching literacy skills development.

Figure 4.9: Bar chart showing teachers responses on strategies used by teachers



The bar chart above revealed that most teachers, despite being specialists in special education, use the collaborative method in the teaching process of literacy skills development. Out of the fifteen (15) respondents, three (3) administrators, twelve (12) teachers who participated, eight (8) indicated collaborative methods, six indicated peer teaching, five indicated expository, three indicated question and answer group work.

The teachers were also asked any other strategy they use and they indicated role play, demonstration and exploration. To triangulate the data collected during questionnaires, the administrators and learners were also interviewed.

Further, concerning the strategies being used to impart the skills, learners said that the expository method was used, two showed that the question and answer method was being used, one indicated demonstration methods while one said the peer teaching method being in use.

Additionally, the administrator revealed that most teachers used teacher centred approach. One male administrator stated that;

Currently the learners with hearing impairment have mostly of the time been combined with the other grade a thing that has increased the number of learners per class. It is practically impossible to use learner centred approach with the current scenario because of different grade levels and disabilities.

Thus it is evident that the data collected through interviews from the administrators was also in tandem with the findings from the questionnaire administered to teachers.

With regard to the learners, data was collected using focused group discussion. The learners were asked to describe how they learnt in class. The data collected from the learners indicated that they were only taught in class using expository methods and that question and answer strategy was used rarely, a situation they indicated as not very helpful in the literacy skills development learning process to learners with hearing impaired.

4.3 The challenges faced by learners with Hearing Impaired in the acquisition of literacy skills development.

In order to identify the challenges faced data was collected from learners with hearing impairments through group discussion. The administrators and the learners were interviewed on the challenges they face in the acquisition of the literacy skills development.

4.3.1 The challenges faced by learners with Hearing Impaired

The following are the summary of that the teachers indicated were as follows:

Lack of teaching and learning aid, teachers don't know sign language, no sign language reading books, pupils no interested in reading, pupils don't know how to read and write, teachers not attending to us when it's their period, pupils like playing and sex during the night pre.

4.3.2 The challenges faced by learners in the acquisition of literacy skills development.

The learners were intervened on what challenges they face in the acquisition of literacy skills development. The interviews reviewed the following:

Remarked by a male 1 student who said:

It is difficult to acquire literacy skills because the school lack of teaching books in sign language and learning aid like the sign language videos are not available at school.

Additionally, the other male student 2 followed that:

Yes! Some of our teachers don't know sign language most of the time I've failed to follow the lessons, because I get lose with their signs which are contrary to the topic they are teaching. So I just wait for time for that period to end.

Furthermore, Female student 3 said:

Pupils don't know how to read and write because we are not interested in reading and teachers not attending to us when it's their period.

Furthermore, another FP 4 said the following;

I have not seen the books in sign language apart from the alphabets, no sign language reading books or story books, pictures with signs we need then for as to learn well. Teachers just impose on us word print books, what we are supposed to do? For instance if I ask for a signs one teacher said sir, just ask your friends and go ahead and turn to the next page, how can will improve my reading and writing skills.

Another student 5 said:

Pupils Magwero deaf like playing, making noise, talking about sex stories and having sex during the night pre. I did not really pay attention to reading from the school.

Another administrator added that;

Due to lack of teaching and learning materials most teachers explain concepts abstractly and provide notes on the black board then after or during the lessons these notes are read out to the learners by their classmate or other learner who sign language.

4.3.3 If parents sometimes teach their children how reading and writing at home.

The students and parents were interviewed to see if they sometimes teach they assist each other on how to reading and writing at home and the response was as follows:

One learner Said:

My parent don't assist me with school works even talk to me most of the time they just ask my brother to assist me with school work when I go home. My sister and brother writes the answers of the homework for me so that I copies without any sign language explanation for them. They cannot also sign very well.

Another learner added that:

I am unable to do my homework at home or any simple story reading and writing because I am not taught by anyone so for my homework I copy from my friends at school the first week when we open because my parents can't read or write because they did not go to school so they talk.

Furthermore male learners said:

Yes I hate home because I am always lonely, they are not interested in my school work no matter how hard I teach them sign language so that we communicate in many things but no interested in me. To get somebody to assist me at home is very difficult I don't get any addition education help from home.

Parents here believe that the school is directly responsible for the education of their children and knowledge of the individual education programmes is not there.

Female parent said;

My child ask me to assist in his education, to talk to her butI cannot teach her or assist her how to reading and writing at home because teachers are trained to teach the hearing impaired but me I am not trained for my own child, I am just a parent.

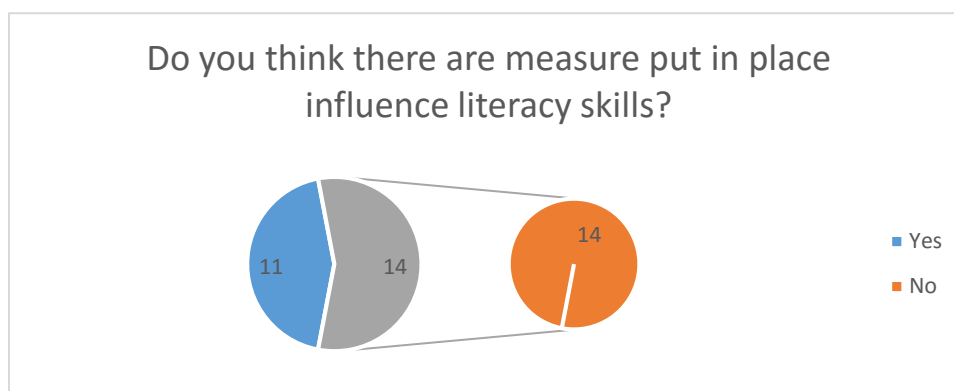
A male parent said:

Sign language is barrier for me to assist my child. It's hard to sign a story, I just can't sign only thinking. By the way they spend most of their time at School with their teachers

4.4 To examine measures put in place to support development of literacy skills among learners with Hearing Impaired.

In order to examine measures put in place to support development of literacy skills among learners with Hearing Impaired below shows indication of teacher if there are measures put in place and the measures put in place by the School.

4.10: If there are measures put in place to influence the literacy skills development.



The figure shows that eleven (44%) indicated that there are measures put in place to influence the literacy skills and fourteen (56%) indicated that there no measures put in place to influence the literacy skills.

The teachers were asked to indicate the measures put in place to influence literacy skills developments and the following is the summary of teachers who indicated the following:

Development of charts, spelling competitions and letter writing, development of the national literacy policy, workshops on Sign Language grammar and pedagogies, to teach parents of the deaf sign language and hearing impaired child living culture, training of special education teachers through CPDs, provide text books or reading books, use of sigh language posters, pictures, charts short paragraphs, peer teaching, team teaching, catch-up, individualized Education Plan (IEP) and homework and remedial work were the measures the School put in place to influence literacy skills development.

The administration were interviewed on that measures put in place to influence the literacy skills development and the following was the response:

Administrator 1 said:

Literacy development is influenced by encouraging reading of story and ordinary books, spelling competition and letter wring amongst our learners.

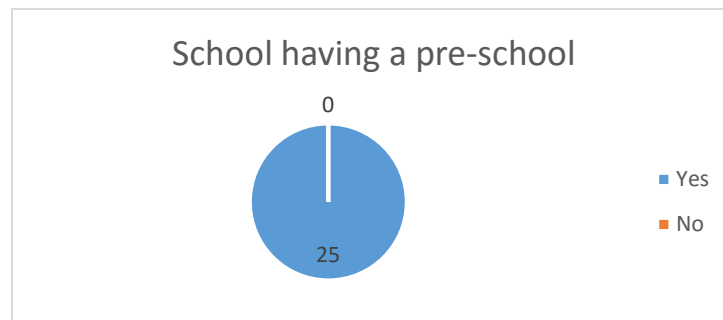
Administrator 2 said:

Okay on that the teachers prepare the individualized education plan (IEP)for our learners who have difficult in acquiring writing and reading skills, remedial work, home works and the catch up and we mark and then monitor the actual teaching.

Administrator 3 said:

Use of sign language posters, pictures, models, having more CPDs to equip our teachers as a School, we provide text and reading books to learners and teachers, developments of charts to be used for teaching and learning literacy skills development only, I monitor that teachers use Zambia sign language to change the print words into sign language and have intense preparation especially breaking of words into synonymous and simplify the work for the HI to comprehend without difficulties.

4.11: If the School has a pre-School class



The above table shows that out of twenty five respondents, all indicated that the school has the pre-school.

A further question was presented to the teachers to indicate if Pre-School can improve development of literacy skills. They all indicated that Pre-School can improve development of literacy skills among the hearing impaired learners at Magwero school for the deaf and

Also a further question was asked to indicate if the teacher teaching a pre-school class is trained to teach a pre-class and fourteen (87%) teachers indicated that the pre-school is not taught by the trained Pre- School Special Education teacher whereas two indicated that the pre-school is taught by the trained Pre- School Special Education as shown below.

CHAPTER FIVE

DISCUSSION OF FINDINGS

5.0 Overview

Chapter five discusses the findings of the study, the purpose of which was to investigate the factors affecting the development of literacy skills among learners with hearing impairments. The findings were presented according to the following themes: identify factors affecting literacy skills development among learners with hearing impairment; the strategies are employed by teachers in teaching literacy skills development; challenges faced by learners with HI in the acquisition of literacy skills and the measures put in place to support development of literacy skills among learners with Hearing Impaired.

5.1 Factors affecting Literacy Skills Development among learners with hearing impairment

It therefore shows that the majority twenty four (24) of respondents indicated that there are factors affecting literacy skills development among learners with hearing impairment, a small proportion of six (6) indicated that they are not aware that they were factors affecting literacy skills development among learners with hearing impairment.

The following is the summary of some of the responses when they were further asked to list the factors affecting literacy skills development; Language of instruction, inadequate teaching and learning materials; high teacher to pupil ration; No specialized room; lack of comprehension and missing out of words on the learner's part; Lack of coordination of signs and words on the learners; sign Language barrier when pupils are at home; pupils late entry into School; lack of Pre-reading and other books in sign language; modification of curriculum that is not supportive; need more time, and no syllabus for such children as while as sign language was not taught as a subject. It further revealed that there was lack of pre-school reading sign language books and sign language materials, inadequate materials and lack of School library facilities in the school. The teachers also attributed pupil's underperformance to failure by many teachers to competently communicate concepts to the hearing impaired in sign language.

The study evidence showed that the Magwero School for the Deaf as an institution have greatly contributed to the challenges facing learners with Hearing Impairments in their academic performance. Some of the institutional barriers barring learners from the acquisition higher were identified as: ineffective instructional strategy and instructional procedures adopted at Magwero School for the Deaf which is Zambia sign language; no syllabi for HI learners and lack of pre-

school reading sign language books/materials and lastly; inadequate materials and School library facilities in the school.

Teachers and administrators at Magwero School for the Deaf confessed that the combination of grade cause large numbers of students in the classroom that did not permit them to pay attention to each individual student's SEN adequately or to implement IEP.

Again, consistent with the observation made by Melander (2008) in some deaf schools, most special educators at Magwero School for the Deaf were also not fluent in sign language because they learnt the sign language at the tertiary level of their education. Even though all the teachers at Magwero School for the deaf are qualified special educators and knowledgeable in the subjects they teach, they are unable to express themselves well in sign language for students to understand.

Further, study revealed that the contents of syllabi and reading materials used in the school did not help meet the special education needs of students thereby creating a challenge for students to excel in acquisition of literacy skills and assessments. Curricula contents and textbooks used in deaf education are the same as those used in the regular schools and does not consider the needs of learners with Hearing Impairments (Aidoo, 2011; Kyere, 2009). Within the macrosystem, policies guiding instructional methods and curricula used in deaf education were discovered to be inadequate. Just as opined by Muzata (2019) and Malyata et al (2017), policies used in deaf education are inadequate to ensure that the disabled student benefited from their education.

Learners with Hearing Impairments do not learn at the same pace as their hearing colleagues according to most participants; therefore, has an additional time and explanations to all level to enable teachers to complete the syllabi before presenting candidates for class assessments, test and examinations. The curricula are bulky for learners and teachers and most teachers are unable to cover every topic.

Also, learners with Hearing Impairments are unable to make sense out of the contents of textbooks used in their school because of the limited sign language vocabulary they have; this finding is consistent with that of Aidoo (2011). The word print textbooks used by learners with Hearing Impairments contain sounds, complex sentences and words, which learners at Magwero Deaf find it difficult to understand or read. According to MESVTEE (2003) from the start; the grade one learners see in printed form those words they use every day in their local language. The authors of such textbooks do not take into consideration the learning needs of learners with

Hearing Impairments learners. Some topics in subjects such as English language are too complex for learners with hearing impairments to relate with or conceptualize, therefore impairing their performance in these subjects.

The respondents also revealed that the most factors affecting literacy skills development is modification of curriculum which is not supportive. One reason for this could be attributed to the fact that the term has been replaced with other terms. For example, Kalabula (2007) points out that the general curriculum has been modified by the Curriculum Develop. Another reason could be that there are no documents in Zambia that bring out the term modified curriculum with regard to special education and this has made the modification not been standardised. In the current situation, the responsibility of modifying the curriculum to suit the individual learners' needs lies in the hands of the special education teachers. However, the term modified Curriculum is not used and it's not standardized with modification guide line.

Many documents in Zambian education do not clearly spell out how these specific areas must be taught. Rather general statements are used in ensuring that teachers are responsible in augmenting the general curriculum to suit the individual child with disability. This finding is similar with the study done in Tanzania by Gronlund, Lim and Larsson (2010) who revealed that, there are no clear policies and documents to illustrate how the curriculum for the learners with hearing impairment should be implemented in schools. Similarly a study conducted in Turkey and Spain, deduced that lack of knowledge among special education teachers hinder the effective implementing of specific areas of individual needs to the learners with hearing impairment (Kesiktaş and Akcamete, 2011; Simon, 2010).

The study further revealed that lack of coordination of signs and print words on the learners was one of the major barriers which hindered the acquisition of literacy Skills development of students in the school. This has also lead to lack of comprehension and missing out of words on the learner's part. *I monitor that teacher's use Zambia sign language to change the print words into sign language and have intense preparation especially breaking of words into synonymous and simplify the work for the HI to comprehend without difficulties.* These finding are in agreement with Quigley (1985) who hinted that pupils with hearing impaired have problem with understanding what they read as with the hearing (normal pupils) because they do not have a feedback loop.

However, this finding is in line with Chisembe (2017) failure to identify words and to comprehend has posed a lot of challenges on the grade one learners with hearing impairments in Lusaka district. Chamberlain and Mayberry (2000) cited that learners with hearing impairments have problems with reading because of their difficulty in acquiring the conversational form of language in which they are trying to read. It has also been noted that the average learner with hearing impairments shows an ever increasing gap in vocabulary growth, complex sentence comprehension and construction and in concept formation as compared to learners with normal hearing (Ling and Ling 1989). This could be due to the other factor which was revealed by this study as due to late entry into school by the learners who have already acquired the traditional sign language from the outside environment. This study is in line with [Geers & Hayes, 2011] also reported relatively poor levels of reading among secondary school pupils in comparison to performance in primary school and the authors suggest that the gap between deaf children and hearing peers continues to widen with age.

Magwero School for the deaf is the only deaf boarding school in the whole of Eastern Province, as a result learners with Hearing Impairments come from all over the region with different sign language to attend the school causing the confusion in sign language combined with the teacher's incompetence's in sign language. For example Teacher said; *Lack of sign language skills for both the teachers and pupils due to inadequate teacher trainings including negative attitude of teachers towards sign language they feel sign language is a difficulty language to learn and teach.*

From the ecological theory, the mesosystem, which in this case is the difference between their homes traditional sign language and the Zambian sign language which is interpreted in from print words at School, affects their acquisition of the literacy skills development in that the coordination of signs fluency which could have curtailed the problem of coordination of signs and print words are not in existence.

The present study revealed that they were able to identify some areas of the literacy skills development that are needed for them to learn independently, namely Assistive technology skills. It is not surprising that learners were able to identify Assistive technology skills because computers are in use in schools nowadays.

The lack of these facilities affects their learning and prevents them from getting extra help from teachers as other learners with Hearing Impairments from several residential deaf schools. The absence of facilities such as a Basic Design and technology (BDT) and assistive technology ATs in a lessons contributed to the inability of students to perform well in reading and writing. From several literatures and responses, learners with Hearing Impairments benefit more from visual and practical lessons in their education (Kyere, 2009).

The unavailability of these facilities and Teaching and Learning Materials (TLM) made learners at Magwero School for the Deaf learn in abstract. This, therefore, did not help them to fully understand and retain lessons taught in class in order for hearing impaired develop literacy skills and to reproduce the right answers in a good sentence form during conversations and assessments including reading and writing skills.

Relating to the findings of inadequate facilities and institutional barrier to the ecological theory, it can be said that the exosystem of the ecological theory influenced the academic performance of the learners with hearing impaired. Even though certain institutions within Magwero School for the Deaf had no direct contact with learners, because of their contact with the school, they indirectly created barriers to their academic performance.

Hence, it is evident that proper handling of learners with hearing impairment depends much on how teachers understand sign language these different areas found in pedagogies. Therefore, lack of knowledge on how the learners with hearing impaired can acquire literacy skills may hinder proper provision in the different literacy skills development areas that are critical among the hearing impaired learners.

Furthermore one other factor revealed by the study was that sign language was not taught as a subject it was incorporated in other subjects due to the modified curriculum and syllabi that put more emphasis on academic subjects than developing literacy skills. The study recorded that the majority of the teachers fail to modify most of the teaching and learning aids such as books, posters, figures or materials that show or depict the diverse images in real life situation.

It was also revealed that teacher's failure to use and embrace new technology when teaching has affected skills development. Literacy development that includes technology can take various forms in educational settings; it can both support traditional literacies and introduce new forms in the classroom. Technology can help students with HI to discuss their ideas by bringing readers and writers together in the same classroom, and it can help students work together at different

times through Google documents and blogging. Watching sign language DVDs, cartoons words, words and sentence building including software's that transcribes print words into sign language. Another important feature of using technology is that it allows students to remix various media. Technology is the bridge to creating a new form of education where the borders are undefined.

5.2 The strategies are employed by teachers in teaching literacy skills development

With regard to the strategies used by teachers in teaching the literacy skills development, data from administrators, special education teachers and learners revealed that a number of strategies are used that include, collaborative, expository methods, question and answer, peer teaching, group work, role play, expository and demonstration.

However, the study deduced that most teachers use collaborative teaching strategy in the literacy teaching process. This is shown by the MOE (2000) as cited by Ojala (2004) who argues that, in relation to special education, teachers are responsible for adapting the goals and the teaching Strategies in order to suit the learners' strengths and weaknesses.

To triangulate the data collected during questionnaires, the administrators and learners were also further interviewed concerning the strategies being used to impart the skills, learners said that the expository method was used, others showed that the question and answer method was being used, one indicated demonstration methods while others said the peer teaching method being in use. Additionally, the administrator revealed that most teachers used teacher centred approach. Another administrator added that: *due to lack of teaching and learning materials most teachers explain concepts abstractly and provide notes on the black board then after or during the lessons these notes are read out to the learners by their classmate or other learner who sign language.*

This learner-centered approach of making their class mate to sign whilst they learn in abstract, it practically impossible for learners to develop literacy skills. As such these again does not favour the learners with hearing impairment who must depend on classmate to read through signing for them. The findings of this study are in agreement with Woolsey et al's (2004) as it also identified that due to the ineffectiveness of institutional methods adopted by special educators, most students complained of not understanding lessons taught in class.

It is evident that the data collected through interviews from the administrators was also in tandem with the findings from the questionnaire administered to teachers. With regard to the learners, data was collected using focused group discussion. The learners were asked to describe how they learnt in class. The data collected from the learners indicated that they were only taught in class using expository methods and that question and answer strategy was used rarely, a situation they indicated as not very helpful in the literacy skills development learning. This was evident as the researcher through observation noted that this would make one to conclude that most of the literacy skills are taught unconsciously with different strategies within the academic subjects using the modified curriculum.

One reason put forward was that in most cases teachers were using strategies common to all students. This emanate from colleges and universities where students are trained to handle all disabilities without going into details in each specific disability. This is supported by Peters (2003) who postulate that teaching learners with disabilities in specific areas is a challenge as it requires dedication, time and experience in a particular skill. Muwana (2012), argues that the current special education training in both universities and colleges require that students master all the disabilities by the time they graduate. For example, at the Zambia Institute of Special Education, just like at UNZA, students are trained to handle all disabilities, suggesting that every special education teacher qualifies to teach learners of every disability.

However, Katasse (1997) recommended a variety of strategies to provide meaningful language experiences, like Alur (2002), argues that in order to adequately teach any of the disability groups, one needs to spend more time in understanding that particular disability. These findings are consisted with those of Bunch (1997) who argued that inadequacy of qualified teaching staff is due to the current special education training at the colleges and universities which is too general.

5.3: Challenges faced by learners with hearing impaired in the acquisition of literacy skills.

There are several challenges that affects the acquisition of literacy skills development to learners with hearing impairment. The following are the summary of that the teachers indicated were as follows: inadequate teaching and learning materials aid; teachers don't know sign language; no sign language reading books; pupils not interested in reading; pupils don't know how to read and write; teachers not attending to learners when it's their period; pupils like playing and engage in sexual activities during the night prep; high pupil-teacher ratio; non-availability of specialised

equipment; lack of funds; and lack of parental involvement in education including parents language barrier.

The current study further revealed that the great challenge faced was inadequate teaching and learning materials for learners with hearing impairment are being taught using the improvised materials. Concerning the availability of equipment and teaching materials the teacher's respondents indicated that their school had lack of learning and teaching resources to cater for the learning needs of the learners with hearing impairment. On the other hand, two of the teachers indicated that their school had adequate teaching and learning resources.

Further, the study revealed that most teachers used improvised materials; they did not use real sign language books. This results into learners not improving their reading and writing skills.

The effect of inadequate materials on teaching areas of the literacy Skills development, many stated that inadequacy of books and other learning aids, no teaching and learning materials Lack of books in sign language, had affected the class acquisition of literacy skills development to the learners with hearing impairment.

This leaves the special educational teachers at Magwero School for the Deaf with no option but to use TALULAR that is Teaching and Learning Using Locally Available Resources as teaching aids a thing that is hard to achieve and time consuming. For example one female teacher stated that; *In this school all the books are in words print without signs that means on a daily basis I have to look for sign to interpret in sign language when teaching them for the learners with hearing impairment to be able to read and understand the words. This does create an overload on the part of us teachers and pupils because they have to assimilate the new words then consume a lot of time and create a lot of work for us.*

The findings of the current study are consistent with studies on the inclusive education in Zambia conducted by Kalabula (1991), Moberg and Kasonde-Ng'andu (2001) and Mandyata(2002) who clearly indicate that most schools do not have facilities or resources thereby excluding a lot of children with disabilities from accessing education in schools. All in all it can be noted that Magwero School for the Deaf the learners with hearing impairment education environment are not favourable for acquisition of skills in the areas of the literacy Skills development.

The findings revealed that schools administrators do not provide adequate and suitable learning materials for hearing impaired children to acquire and develop literacy Skills. For example, from the focus group discussions the findings from the pupils themselves indicated that the School

library largely depended on materials donated by western country. Lack of suitable learning/teaching materials makes it difficult for the children to acquire and apply knowledge, to learn at their own pace and to assess their own progress in their quest to acquire literacy skills. Due to these challenges, most children with hearing impairment are considered to be severely disadvantaged in their studies and consequently perform poorly.

Inadequate teaching and learning materials can also be seen through limited literature in terms of books that are provided to the hearing impaired. For example, the schools under study revealed that there are no learners books in Sign Language and Signed English form in all the subject at pre-School to secondary level and that all the books were in word print that learners can use for the purpose of reading, studying, teaching and learning. As such, this has a negative effect on the acquisition of skills found in the literacy Skills development.

In line with this Kapinga (2012) comments that the inadequacy of learning materials leaves the special educational teachers with no option but to transcribe that is converting work from print to Braille on daily basis.

The interpretation of these books does not only consume a lot of time but also create overload on the part of the teachers. Usually, work overload leads to frustration and in dilemma that in most cases results in inefficiency and ineffective teaching. This in the end translates in poor acquisition of skills found in the literacy skills development. Similarly, Mastropieri and Scruggs (2010), acknowledges that low performance of the learners with disabilities is primarily caused by inadequate teaching and learning materials. Additionally, Sapp and Hatlen (2010), points out that the insufficiency of instructional materials reduces effective teaching and makes learning difficult to hearing impaired.

In addition lack of Pre-reading books in sign language, pictures in sign language, as while as lack of trained pre-school special education teacher. It was revealed that most of the books are in Cinyanja the local language phonics which need to be taught these books do not favour the hearing impaired learners. For instance one teacher in this study said: *If Pre-School special teachers are trained as I have been told that ZAMISE is training, they are not posted to special schools because I have not seen one since 2010 when I come here at Magwero School for the deaf and it's very difficult for me to translate Cinyanja sounds into sign language, I don't understand the words.*

For example, irregular and lack funding from government to purchase learning and teaching materials and their inability to build the needed facilities such as the School library or class of excellence within the school does not foster effective teaching and learning of literacy skills; thereby posing a challenge to the academic performance of Student with Hearing Impairments to develop literacy skills. Within the macrosystem, policies guiding instructional methods, production/supply of sign language teaching and learning materials, and curricula used in hearing impaired education were discovered to be inadequate. Just as opined by Nortey (2009) and Obosu et al (2013), policies used in deaf education are inadequate to ensure that the Deaf or hard of hearing (D/HH) student benefited from their education.

With respect to the high pupil-teacher ratio, the current studyrevealed teacher's respondents indicated that the pupil-teacher ratio in the process of teaching and learning for the hearing impaired is high at Magwero Deaf. Also teachers are unable to attend to each student's educational needs after the class or to use the IEP. Hence, majority of the students are unable to benefit from lessons taught. Similarly, a study conducted by Penda, Ndhlovu, and Kasondeng'andu (2015) confirms that any teaching strategy to be effective, individual attention is cardinal and this is more effective to a small group of learners.

Using open ended questions, one teacher stated that due to high pupil-teacher ratio they had difficulties in delivering quality lessons to the learners with hearing impairment and implementation of the Individualized Education Plan IEP which are the catalyst to literacy skills development. For example one teacher indicated that: *I can say it's due to high-pupil-teacher ratioat this school because few teachers, most of the time we are told to combine classes of learners with different abilities, as you know one leaner is equal to ten. I have difficulties in explaining the details of what is highlighted on the board instead of using my individualised education Plan (IEP).* Similarly, a study conducted by Penda, Ndhlovu, and Kasondeng'andu (2015) confirms that any teaching strategy to be effective, individual attention is cardinal and this is more effective to a small group of learners.

One reason attributed to this could be that the lack of government policy to supports the provision of posting trained special education teachers to all the special school. It was observed that the School like combining lower grade due to like of teachers, pre-School was combined with grade ones. For example another administration: *very few teachers has contributed teacher*

to pupil ration to be too high in the school, imagine the school has 17 teachers against thirteen (13) class starting from pre-school to grade twelve, how can we teach these skills.

While the combination of the class may be seen as a School positive initiative towards achieving the go of the children not missing learning from Monday to Friday, it compromises the quality of education to be provided to learners with hearing impairment to develop literacy skills.

Another reason could be that in Zambia there are no guidelines on the minimum and maximum number of learners with hearing impairment per class. This was also in research of Shanzi (2016) the Ministry of Education policy document of 1996-Educating Our Future, has not provided guidelines regarding the size of a special education class when it comes to the problem of overcrowding or teacher to pupil ratio in most of Zambian special schools. It has not also provided a policy direction to posting trained specialized teachers to special education schools. To a large extent this contradicts the recommendations made by Gallagher et al. (1998) who propose that a class for some severe disabilities ought to comprise between four to ten learners if they are to learn effectively.

The study has also revealed that Magwero deaf has a number of teachers who are not trained in special education but because of interest they opted to teach hearing impaired learners this is a very big challenge that has affected development of literacy skills. One reason for this could be that in an attempt to address high pupil-teacher ratio, the government through the Ministry of Education has allowed teachers not trained in special education to take up the challenge of teaching these learners. The disadvantage with this whole situation is that these teachers who are not trained in special education cannot effectively help these learners. For example one female learner lamented that:

Whenever I write a class exercise my books are not marked as my subject teacher cannot read Braille, so my work is not marked, however when my work is marked in most cases the correct answers are marked wrong. These findings are consistent with Arbeiter and Harley (2002) who found that some of the problems in teaching reading to pupils with hearing impairment are caused by changes in teachers as pupils tend to get used to some teachers rather than others.

The other challenge that emanated from the study was inadequate funding by the government. From the interviews, all the school administrators alluded to the fact there is inadequate funding has caused another challenge which study revealed as non-availability of specialized equipment by

the central government which makes acquisition of equipment and teaching/learning materials for the learners with hearing impairment difficult task has affected the acquisition of literacy skills development to learners with hearing impairment.

In addition the study revealed that lack of parental involvement in education including parent's language barrier was another major challenge that affect literacy skills development. This is in line with the ecological theory which emphasizes the importance of parental participation in the education of their children to ensure that children are provided with necessary support both at home and school. Parents can play an important role by playing the games and reading the books with their children. This should be done in partnership with the class teacher, who will introduce the concepts first in school and indicate which games and books are appropriate at the time.

5.4 Measures put in place to support development of literacy skills among learners with Hearing Impaired.

The research further examined if the Magwero School put in place measures to support development of literacy skills among learners with Hearing Impaired which in line with Ministry of Education, Science, Vocational Training and Early Education (2008) has tried to put measures to address the reading problems by introducing programmes to improve reading skills in the reading policy. The study revealed that eleven (44%) indicated that there are measures put in place to influence the literacy skills and fourteen (56%) indicated that there no measures put in place to influence the literacy skills.

The teachers were asked to indicate the measures put in place to influence literacy skills developments at Magwero School for the Deaf and the following is the summary of teachers who indicated the following: Spelling competitions and letter writing, implementation of the national literacy policy by the government, workshops on Sign Language grammar and pedagogies such as peer teaching, team teaching; to teach parents of the deaf sign language and living culture of hearing impaired learners; training of special education teachers through CPDs; provide text books or reading books, development and use of sign language posters, pictures, charts, short paragraphs; catch-up; Individualized Education Plan (IEP); homework and remedial and Introduction of pre-School work were the measures the School put in place to influence literacy skills development.

The administration were interviewed on that measures put in place to influence the literacy skills development and it revealed that they provide text books or reading books, use of sign language

posters, pictures, charts, short paragraphs. For example a female administrator said: *Literacy development is influenced by encouraging reading of story books and ordinary books, spelling competition and letter writing amongst our learners.*

Furthermore study revealed that the individualized Education Plan (IEP), School homework policy and remedial work were the measures the School put in place to influence literacy skills development. For example administrator 2 said: *Okay on that the teachers prepare the individualized education plan (IEP) for our learners who have difficulty in acquiring writing and reading skills, remedial work, home works and the catch up and we mark and then monitor the actual teaching.*

The revelation is in line with Bronfenbrenner's theory, microsystem in the ecological systems model, described the relationship between an active child and people, objects symbols in the immediate bio- ecological environment of the child with an intellectual disability includes: parents; home family; neighborhood, peers; peers; community and school.

In her study Mwanza (2014) reports the IEP provides an opportunity for parents and professions to join together in developing and delivering specially designed instruction to meet students' needs. In the current research, mesosystems are all settings which impact on an individual's immediate context. Although it was noted that lack of sign language proficiency was one of the most salient barriers to parental involvement in IEP and the teacher effective teaching of the learners.

Training of special education teachers through CPDs was another measure revealed by the research for example administrator 3 said: *Use of sign language posters, pictures, models, having more CPDs to equip our teachers as a School, we provide text and reading books to learners and teachers, developments of charts to be used for teaching and learning literacy skills development only.*

Workshops on Sign Language grammar and pedagogies such as peer teaching, team teaching, to teach parents of the deaf sign language and living culture of hearing impaired learners during the PTA annual general meetings so that the parents should have the basic sign language for them to easily communicate with their children.

This agrees with Mwanakatwe (1973) who stated that support the fact that a teacher is not a product of chance and that initial training, in- service education and Continuing Professional Development underpin what the teacher can accomplish in school. In addition, Ndopu (2010

M.Ed. Thesis unpublished), point out that researchers have supported findings that the academic and professional training of teachers has direct and positive bearing on the quality of their performance and consequently on the achievement of learners.

A further question was presented to the respondents if the School has the pre-School and the majority acknowledged that there was a pre-School. The findings shows fourteen (87%) that the teacher teaching a pre-school class is not trained Pre- School Special Education teacher.

They all revealed that Pre-School if well-handled can improve development of literacy skills among the hearing impaired learners at Magwero School for the Deaf and (Freel et al., 2011; Myers et al., 2010) Early language access is reported as a significant factor that creates literacy challenges and literacy gaps among most of the students who are deaf.

The research revealed that the Catch-up was another measurer adopted by the School as a methodology to develop literacy skills in HI learners. It's a structured one-to-one intervention for learners who find reading and writing difficult to improve learners reading. It enables struggling readers to achieve more than double the progress of typically developing readers which is in line with Ministry of education in case study shares J-PAL Africa and Pratham's report (2018) 92% of children who received Catch Up Literacy support at age seven continue to be able to participate fully in the curriculum, along with their peers, at age fourteen.

CHAPTER SIX

CONCLUSION, RECOMMENDATIONS AND SUGGESTION FOR FUTURE

RESEARCH

This chapter provides a summary of this study. It also presents the conclusion and the recommendations of this study.

6.1 Introduction

This chapter presents the conclusion on both the literature reviewed in the study and the study conducted. The recommendations based on the findings with guidelines for future research.

6.2 Conclusion

The aim of this study was to investigate the factors affecting the development of literacy skills among learners with hearing impairments. The findings were presented according to the following themes: identify factors affecting literacy skills development among learners with hearing impairment; the strategies are employed by teachers in teaching literacy skills development; challenges faced by learners with hearing impairment in the acquisition of literacy skills and the measures put in place to support development of literacy skills among learners with Hearing Impaired. The following conclusions have been drawn:

All the respondents were aware that there are factors affecting literacy skills development among learners with hearing impairment.

And these factors revealed that Language of instruction, inadequate teaching and learning materials; high teacher to pupil ration; No specialized room; lack of comprehension and missing out of words on the learner's part; Lack of coordination of signs and words on the learners; sign Language barrier when pupils are at home; pupils late entry into School; lack of Pre-reading and other books in sign language; modification of curriculum the is not supportive; need more time, and no syllabus for such children as while as sign language was not taught as a subject. It further revealed that there was lack of pre-school reading sign language books and sing language materials, inadequate materials and lack of School library facilities in the school.

The teachers also attributed pupil's underperformance to failure by many teachers to competently communicate concepts to the hearing impaired in sign language and failure to use and embrace technology.

With regard to the strategies used by teachers in teaching the literacy skills development, data from administrators, special education teachers and learners revealed that a number of strategies are used that include, collaborative, expository methods, question and answer, peer teaching, group work, role play, expository and demonstration.

However, the study deduced that most teachers use collaborative teaching strategy in the literacy teaching process. This is shown by the MOE (2000) as cited by Ojala (2004) who argues that, in relation to special education, teachers are responsible for adapting the goals and the teaching Strategies in order to suit the learners' strengths and weaknesses.

With regard to the learners, data was collected using focused group discussion. The data collected from the learners indicated that they were only taught in class using expository methods and that question and answer strategy was used rarely, a situation they indicated as not very helpful in the literacy skills development learning. This was evident as the researcher through observation noted that this would make one to conclude that most of the literacy skills are taught unconsciously with different strategies within the academic subjects using the modified curriculum. This is supported by Peters (2003) who postulate that teaching learners with disabilities in specific areas is a challenge as it requires dedication, time and experience in a particular skill. Muwana (2012) argues that the current special education training in both universities and colleges require that students master all the disabilities by the time they graduate.

However, these findings are consisted with those of Bunch (1997) who argued that inadequacy of qualified teaching stuff is due to the current special education training at the colleges and universities which is too general.

However, there are several challenges being faced by pupils with hearing impairment at Magwero School for the Deaf such as some teachers' non use of teaching and learning aids because of inadequate teaching and learning materials, worse enough these T/L materials have no sign language such as the reading books and story books. This leaves teachers at Magwero School for the Deaf with no option but to use TALULAR that is Teaching and Learning Using Locally Available resources as teaching aids with no sign language in them, a thing that is hard to achieve and time consuming which did not help learners to develop literacy skills. In line with this Kapinga (2012) comments that the inadequacy of learning materials leaves the special

educational teachers with no option but to transcribe that is converting work from print to Braille on daily basis.

The findings of the current study are consistent with studies on the inclusive education in Zambia conducted by Kalabula (1991), Moberg and Kasonde-Ng'andu (2001) and Mandyata(2002) who clearly indicate that most schools do not have facilities or resources thereby excluding a lot of children with disabilities from accessing education in schools. All in all it can be noted that Magwero School for the Deaf the learners with hearing impairment education environment are not favourable for acquisition of skills in the areas of the literacy Skills development.

The interpretation of these books does not only consume a lot of time but also create overload on the part of the teachers. Usually, work overload leads to frustration and in dilemma that in most cases results in inefficiency and ineffective teaching. This in the end translates in poor acquisition of skills found in the literacy skills development. Similarly, Mastropieri and Scruggs (2010), acknowledges that low performance of the learners with disabilities is primarily caused by inadequate teaching and learning materials. Additionally, Sapp and Hatlen (2010), points out that the insufficiency of instructional materials reduces effective teaching and makes learning difficult to hearing impaired.

In addition it revealed that lack of Pre-reading books in sign language, pictures in sign language, as while as lack of trained pre-school special education teachers. It was revealed that most of the books are in Cinyanja the local language phonics which needs to be taught, these books do not favour the hearing impaired learners in the development of literacy skills.

Using open ended questions, one teacher stated that due to high pupil-teacher ratio they had difficulties in delivering quality lessons to the learners with hearing impairment and implementation of the Individualized Education Plan IEP which are the catalyst to literacy skills development. Similarly, a study conducted by Penda, Ndhlovu, and Kasondeng'andu (2015) confirms that any teaching strategy to be effective, individual attention is cardinal and this is more effective to a small group of learners.

Another reason could be that in Zambia there are no guidelines on the minimum and maximum number of learners with hearing impairment per class. This was also in research of Shanzi (M.Ed. Thesis unpublished, 2016) the Ministry of Education policy document of 1996-Educating Our Future, has not provided guidelines regarding the size of a special education class when it comes to the problem of overcrowding or teacher to pupil ratio in most of Zambian special

schools. It has not also provided a policy direction to posting trained specialized teachers to special education schools. To a large extent this contradicts the recommendations made by Gallagher et al. (1998) who propose that a class for some severe disabilities ought to comprise between four to ten learners if they are to learn effectively.

The research further examined if the Magwero School put in place measures to support development of literacy skills among learners with Hearing Impaired which in line with Ministry of Education, Science, Vocational Training and Early Education (2008) has tried to put measures to address the reading problems by introducing programmes to improve reading skills in the reading policy. The study revealed that eleven (44%) indicated that there are measures put in place to influence the literacy skills and fourteen (56%) indicated that there no measures put in place to influence the literacy skills.

The measures put in place to influence literacy skills developments at Magwero School for the Deaf were spelling competitions, letter writing, implementation of the national literacy policy by the government, workshops on Sign Language grammar and pedagogies such as peer teaching, team teaching; to teach parents of the deaf sign language and living culture of hearing impaired learners; training of special education teachers through CPDs; provide text books or reading books, development and use of sign language posters, pictures, charts, short paragraphs, individualized Education Plan (IEP). In her study Mwanza (2014) reports the IEP provides an opportunity for parents and professions to join together in developing and delivering specially designed instruction to meet students' needs.

In the current research, mesosystems are all settings which impact on an individual's immediate context. Although it was noted that lack of sign language proficiency was one of the most salient barriers to parental involvement in IEP and the teacher effective teaching of the learners, School homework policy and remedial and Introduction of pre-School at School can improve development of literacy skills among the hearing impaired learners at Magwero school for the deaf and (Freel et al., 2011; Myers et al., 2010) Early language access is reported as a significant factor that creates literacy challenges and literacy gaps among most of the students who are deaf including working with parents and other stakeholders were the measures the School put in place to influence literacy skills development.

The revelation is in line with Bronfenbrenner's theory, microsystem in the ecological systems model, described the relationship between an active child and people, objects symbols in the

immediate bio- ecological environment of the child with hearing impairments includes: parents; home family; neighborhood, peers; peers; community and school.

This agrees with Mwanakatwe (1973) who stated that support the fact that a teacher is not a product of chance and that initial training, in- service education and Continuing Professional Development underpin what the teacher can accomplish in school. In addition, Ndopu (2010 M.Ed. Thesis unpublished), point out that researchers have supported findings that the academic and professional training of teachers has direct and positive bearing on the quality of their performance and consequently on the achievement of learners.

A furthermore another measure was that pre-School and the trained pre-school class teachers can improve development of literacy skills among the hearing impaired learners at Magwero school for the deaf and (Freel et al., 2011; Myers et al., 2010) Early language access is reported as a significant factor that creates literacy challenges and literacy gaps among most of the students who are deaf.

The research revealed that the Catch-up was another measurer adopted by the School as a methodology to develop literacy skills in HI learners but it was not implemented by teachers. It's a structured one-to-one intervention which can improve literacy skills for learners who find reading and writing.

6. RECOMMENDATIONS

As a way forward, the following suggestions need to be considered towards the effective enhancement of literacy skills development among learners with hearing impairment.

- 1) MOGE should constantly send Special Education Standards Officers to monitor whether School administrators together with specialist teachers organize IEP meetings with the parents and monitor if parents are involved in the education of their children.
- 2) Educators must be provided with solid training in Special Needs Education with sign language, at both pre-service and in-service levels. Through this understanding, educators can work to create a new generation of highly literate students with hearing impairment.
- 3) Specialist teachers should not use terms that are ambiguous when teaching literacy skills.
- 4) MOGE should ensure that Sign Language skills development should be the primary consideration when teaching learners starting from Pre-School to grade 12. Because pre-School plays an important role in a student's literacy skills learning.

- 5) To counteract the apparent sign language deficit in families with children who are HI. The MOGE should post all special education teachers to special schools or Units. As a while as training parents in basic sign language including teachers to share these suggestions with families, as well as remember them in their own teaching.
- 6) The variety of strategies to provide meaningful language experiences be employed. Mandyata (2018) education system lacked instructional language policy and learning environment were inappropriate to support use of sign language alone in the learning process.

6.2 Suggestion for future research

In view of the above findings; there is need to conduct a similar study in other parts of the country in order to compare the finding of this study and what may be happening in other special schools for the hearing impaired.

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APPENDICES

Appendix 1

THE UNIVERSITY OF ZAMBIA

SCHOOL OF EDUCATION DEPARTMENT OF EDUCATIONAL PSYCHOLOGY SOCIOLOGY AND SPECIAL EDUCATION

Questionnaire for Teachers

I am a Masters student doing Special Education at the University of Zambia in the school of Education carrying out a research on the factors affecting literacy skills development on hearing impairments, a case at Magwero school for the deaf in Chipata district of eastern province

Not that the information that I will get from you is purely for academic research purpose only and will be used as such.

Please kindly answer this questionnaire as sincerely as you can.

Thank you.

Instructions

- ✓ Do not write your name on this questionnaire.
- ✓ Respond to all questions by ticking your response and give reasons where requested.

Gender

Male (b) Female

1. What is your age range? (a) Below 25 [] (b) 26-30[] (c) 31-35[] (d) 35-40[] (e) 41+[]
2. Years in service (a) less than 10 years [] (b) Between 11 and 15 years []
(c) Between 16 and 20 years [] (d) Above 21 years []
3. Level of educational. a) Ordinary college [] b) College in special education []
c) Special education at university level [] (d) Have degree but not in special education []

TEACHER COMPETENCIES AND QUALITIES

4. How well did your training prepare you to teach reading to the hearing impaired learners?
(a) Good preparation [] (b) Fair (c) Poor [] (d) No relevant preparation []

5. How long have you been teaching the hearing impaired learners?

(a) Below 5 years [] (b) 6-10[] (c) 10-15 (d) 16+[]

TEACHER SUPPORT

6. a) Do you think there are factors affecting literacy skills development in learners with hearing impairments?

b) If yes what are these factors affecting literacy skills development?

(a).....

7. Do you use sign language or signed English books to teach Literacy skills to learners with hearing impairments?

(a)Yes [] (b) No []

or if No how do you improvised materials, how?

8. Have you attended any professional development meeting (CPD) on reading for children with hearing impairments? (a)Yes [] (b) No []

9. Do you sometimes use School libraries or center of excellence to source reading materials for children with hearing impairments? (a)Yes [] (b) No []

10. If yes, how do you rate the usefulness of School Library or centre of excellence in terms of reading materials for the teachers to develop literacy skills for learners with HI?

(a)I don't know [] (b) Not useful [] (c) Useful [] (d) Very useful []

MEDIUM OF INSTRUCTION FOR TEACHING LITERACY SKILLS FOR LEARNERS WITH HEARING IMPAIRED

11. Where you trained in Sign language? (a)Yes [] (b) No []

12. Do you teach Sign language as a subject? (a)Yes [] No []

13. If Sign language is not taught as a subject, give reasons for your answer.

.....

14. What strategies do you employed in teaching literacy skills development?

(a).....

15. What is the medium of instruction used to teach literacy for the hearing impaired at your school? (a) Zambian Sign language [] (c) Signed English [] (d) Total communication [] (e) Oral [] (f) Not Sure []

19. How do you rate the reading and writing levels?

(a) I don't know (b) Not useful (c) Useful (d) Very useful

20. Do you think there are measures put in place to influence the literacy skills development?

Yes [] (b) No []

21. What are the measures put in place to influence the literacy skills development?

(a).....

22. Don't you think that pre-School can improve development of literacy skills in your learners?

Yes [] (b) No []

Appendix 2

THE UNIVERSITY OF ZAMBIA

SCHOOL OF EDUCATION DEPARTMENT OF EDUCATIONAL PSYCHOLOGY SOCIOLOGY AND SPECIAL EDUCATION

INTERVIEW GUIDE FOR PARENTS

I am a Masters student doing Special Education at the University of Zambia in the school of Education carrying out a research on the factors affecting literacy skills development on hearing impairments, a case at Magwero school for the deaf in Chipata district of eastern province

The information that will be collected from you is purely for academic research purpose only and will be used as such.

Please kindly answer this questionnaire as sincerely as you can.

Thank you.

Instructions

- Do not write your name on this questionnaire.
- Respond to all questions by ticking your response and give reasons where requested.

BIO DATA

1. Gender: (a) Male (b) Female
2. What is your age range? (a) Below 25 (b) 26-35 (c) 36-45 (d) 46-55 (e) 56+
3. What is your highest level of academic qualification?
(a) Primary (b) Junior secondary (c) Senior Secondary (d) University (e) Not been to school
4. What is your highest level of professional qualification?
(a) Certificate (b) Diploma (c) Degree (d) Doctorate

PARENT AND CHILD COMMUNICATION

5. Rate the extent to which you use the following modes of communication with your child who is deaf. (Tick in appropriate box)

<i>Mode of communication</i>	<i>YES</i>	<i>No</i>	<i>Not sure</i>	<i>Never</i>
Zambian sign language				
Signed English language				
Home/traditional Signs				
Verbal language				

PARENTAL SUPPORT

6. Did your child attend pre-school? Yes [] (b) No []

7. If yes, how many years has your child been in school after pre-school (a) 4 years (b) 3 years (c) 2 years (d) 1 year

8. Do you sometimes teach your child how to reading and writing? Yes [] (b) No []

9. If yes, what material do you use?

.....

10. Does your child ask you to do any of the following: (Tick in appropriate box)

<i>Activity</i>			<i>Always</i>	<i>Often</i>	<i>Sometimes</i>	<i>Never</i>
Sign any story to you						
Match painting and drawing with letters						
have stories read to him/her						
words to be finger spelled						

TEACHING STRATEGIES USED BY THE TEACHERS IN TEACHING THE LITERACY

11. Do you think the school has materials and equipment to use during literacy skill development lessons? Yes [] (b) No []

If yes what are materials and equipment used during literacy skill development lessons?

(a).....(d).....(b).....
(e).....(c).....(f).....

12. Are these materials adequate in teaching literacy skills of Hearing Impairment learners?

Yes [] (b) No []

13. If not what is the administration doing to help the situation?

(a).....

How do you rate the reading and writing levels of your child?

(a) I don't know (b) Not useful (c) Useful (d) Very useful

14. Do you think there are measures put in place to influence the literacy skills development?

Yes [] (b) No []

15. What are the measures put in place to influence the literacy skills development in your child?

(a).....(d).....

(b).....(e).....

(c).....(f).....

16. Don't you think that pre-School can improve development of literacy skills in your learners?

Yes [] (b) No []

APPENDICES 3
INTERVIEW GUIDE FOR ADMINISTRATORS

I am a Masters student doing Special Education at the University of Zambia in the school of Education carrying out a research on the factors affecting literacy skills development on hearing impairments, a case at Magwero school for the deaf in Chipata district of eastern province

Instructions:

Please indicate your response/answer to each question or statement by ticking or filing in the appropriate bank spaces provided

SECTION A: BACK GROUND INFORMATION1.

1. Gender (a) Male [] (b) Female []

2. Years in service (a) less than 10 years [] (b) Between 11 and 15 years [] (c) Between 16 and 20 years [] (d) Above 21 years []

3. Number of years as an administrator

(a) Less than 10 years [] (b) Between 11 and 15 years [] (c) Between 16 and 20 years [] (d) Above 21 years []

SECTION B:

TEACHING STRATEGIES USED BY THE TEACHERS IN TEACHING LITERACY SKILLS.

4. Are there assessments that are done in reading and writing apart from the end of term tests?

5. If yes that are those types of assessments.

.....

6. Are parents and other professionals involved in teaching you how to read, write and sign at home? Yes [] (b) No []

7. What teaching strategies/methods do your teachers use when teaching you?

(a).....(b).....
(c).....(d).....

8. What materials and equipment are used in teaching the reading and writing?

.....
.....
9. Are these materials adequate for teachers to teach pupils how to read and write?

Yes [] (b) No []

10. If not what is the administration doing to help the situation?

(a).....(b).....

FACTORS AFFECTING LITERACY SKILLS DEVELOPMENT

11. Do you have pre-school class? Yes [] (b) No []

12. If Yes, how do you teach/develop literacy skills?

.....

13. Are pre-school teachers trained in

14. What materials do they use when teaching literacy skills?.....

.....

15. If No, why your school does not have pre-school?

(a).....(d).....

16. Don't you think that pre-School can improve development of literacy skills in your learners?

Yes [] (b) No []

17. Do you think there are factors affecting literacy skills development in learners with hearing impairments? Yes [] (b) No []

18 If yes what are these factors affecting literacy skills development?

(a).....(d).....

(b).....(e).....

19. Do you think there are measures put in place to influence the literacy skills development?

Yes [] (b) No []

20. What are the measures put in place to influence the literacy skills development?

(a).....(d).....

THANK YOU FOR YOUR COOPERATION

APENDIXES 4

THE UNIVERSITY OF ZAMBIA

SCHOOL OF EDUCATION DEPARTMENT OF EDUCATIONAL PSYCHOLOGY SOCIOLOGY AND SPECIAL EDUCATION

FOCUS GROUP DISCUSSION GUIDE FOR THE LEARNERS WITH HEARING IMPAIRMENT.

FACTORS AFFECTING LITERACY SKILLS DEVELOPMENT

1. Do you learn how to read and write only? Yes [] (b) No []
 2. Do you think there are factors affecting literacy skills development? a) Yes [] b) No []
 3. If yes what are these factors affecting literacy skills development for you?
(a).....(d).....
(b).....(e).....
(c).....(f).....
 4. Do your teachers use real sign language books when teaching you Literacy? (a)Yes [] (b) No []
or if you improvised materials, how?
.....
 5. Are your teachers good in sign language? (a)Yes [] (b) No []
 6. How can you rate them as follows? a) Good b) fairly good c) not good d) no of above
 7. Do you have a school Library? (a)Yes [] (b) No []
- Do you sometimes use the school library to source reading materials?
- (a)Yes [] (b) No []

8. If yes, how do you rate the usefulness of resource centres in terms of reading materials for the teachers of the hearing impaired?

(a) I don't know ☐ (b) Not useful ☐ (c) Useful ☐ (d) Very useful ☐

MEDIUM OF INSTRUCTION FOR TEACHING LITERACY SKILLS.

9. Do you think your teachers are trained in Sign language? (a) Yes ☐ (b) No ☐ (c)

10. Do you learn Sign language as a subject? (a) Yes ☐ (b) No ☐

11. If Sign language is not taught as a subject, give reasons for your answer.

(a).....(d).....

(b).....(e).....

(c).....(f).....

12. What strategies do you employed in teaching literacy skills development?

(a).....(d).....

(b).....(e).....

(c).....(f).....

13. What is the medium of instruction teachers use to teach you literacy at your school?

(a) American Sign Language ☐ (b) Zambian Sign language ☐ (c) Signed English ☐ (d) traditional sign language ☐ Not Sure ☐

14. How do you rate yourself in reading and writing levels? (a) I don't know (b) Not useful (c) Useful (d) Very useful

15. Do you think there are measures put in place to influence the literacy skills development?

Yes ☐ (b) No ☐

16. What are the measures put in place to influence the literacy skills development?

(a).....(d).....

CHILD PARENT MODE OF COMMUNICATION

17. Do your parents sometimes teach you how reading and writing at home? (a) Yes (b) No

18. If yes, what material do you use?

.....

19. How often does your parent do any of the following: (Tick in appropriate box)

	4	3	2	1
communication activity	Always	Often	Sometimes	Never
Sign stories				
Ask to have stories read you				
Make letters when painting and drawing				
Ask for words to be finger spelled				

20. Don't you think that pre-School can improve development of literacy skills in your learners?

Yes [] (b) No []

THANK YOU FOR YOUR COOPERATION