

## CHAPTER ONE

### 1.0 Introduction

This chapter presents the background to the study, statement of the problem, purpose of the study, objectives of the study, study questions, significance of the study, delimitation, limitations, theoretical framework and operational definitions.

### 1.1 Background

In order for any nation to record meaningful and sustainable development, it has to harness all its human resources. This process must take into consideration the fact that all people irrespective of sex, religion and other factors can contribute to the national development if given the opportunity. Although participation in national development is every citizen's right, persons with disabilities (PWDs) remain a major issue that nations the world over have been unable to address to any appreciable level (Ghanaian National Disability Policy Document, June 2000).

Various obstacles continue to disadvantage the development of persons with disabilities, thus preventing them from exercising their rights and freedoms, making it especially difficult for them to participate fully in the activities of their societies. For instance, during the dark ages, the handicapped were thought to be an economic calamity and not contributors to society's services; they had no social support or consideration. Dunn and Fait (1989), further observe that the disabled were either destroyed at birth or later in life by the Greeks, Athenians and the Romans. However, in the 15<sup>th</sup> and 16<sup>th</sup> centuries, Christianity softened the inhuman attitudes of the society as positive attitudes of human nature were shown towards the common man and the handicapped person. Positive attitudes shown by the religious people made them spend time to train the deaf-mute as they were called at that time in monasteries to speak or talk.

The realization then was that if deaf people were to be integrated in society, they needed to be taught how to communicate through speech. As Kail and Cavanaugh (2004) observe, the foundation of socialization is language, which is built upon by familiar and peer socialization. Meaning that communication or the lack thereof, plays a big part in how socially mature deaf children will be at their respective rites of passage. Social development during early childhood, adolescence and post adolescence years are all unlocked through language and

interaction. Core social skills and strategies that are developed during early childhood lay the tapestry for intellectual and moral development. Furthermore, peer interaction strengthens this foundation of social skills and the higher levels of social and moral reasoning are achieved through constant use of these basic social skills in social situations. However, deaf children have factors working against them, including psychological and social stigma that interfere with normal social development and often negatively affect post-childhood development.

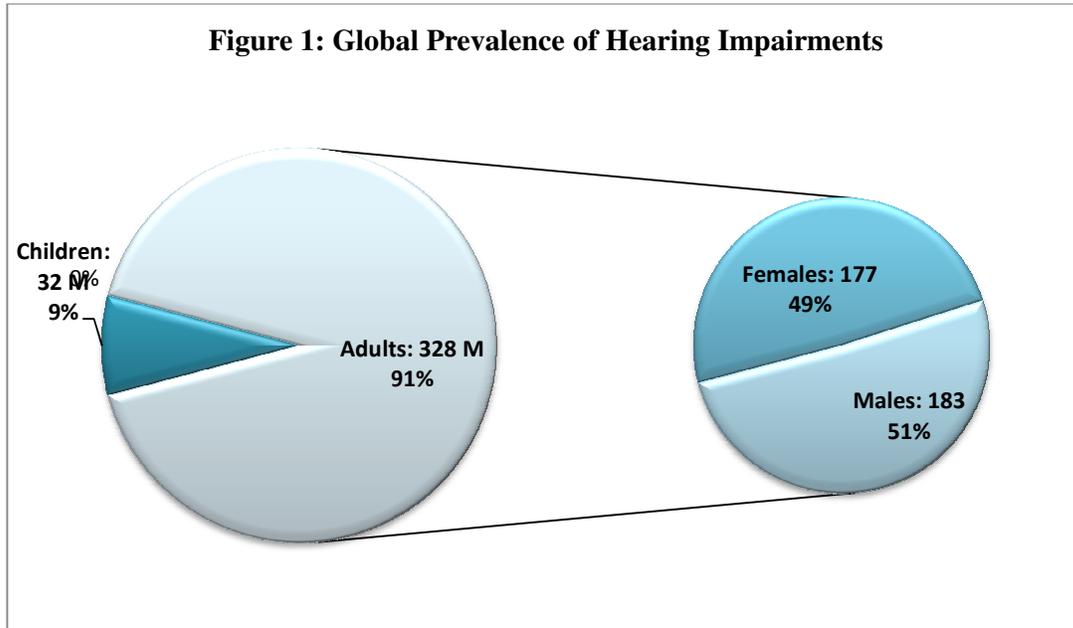
Language is vitally and explicitly important to social development especially during the earliest years of mental development (Marschark, 2000). Without language, children are unable to control or otherwise have any effect on their world. This simply entails that language development is a strong predictor of social functioning in children. Therefore, children's ability to communicate well within the family and with others affects both the formation of close relationships with others and the development of a positive identity (Stinson and Whitmire, 2000). The difficulties that deaf children typically experience in socialization with hearing peers may be attributed to limited production of intelligible speech and speech comprehension, resulting in inadequate understanding of how others think and feel (Rommel and Peters, 2009), and to delays in metacognitive processes, such as problem solving and attention. In turn, deaf children's cognitive difficulties can affect the type and duration of typically developing play behaviour.

A study by Marschark (2000) found out that deaf children may be delayed in picking up communication and social skills due to limited exposure to typical early experiences. Therefore, without this exposure to communication, children may struggle to develop age-appropriate theory of mind and social competencies, which in turn may negatively impact the development of friendships and further opportunities to develop social skills.

### **1.1.0 Global Perspective**

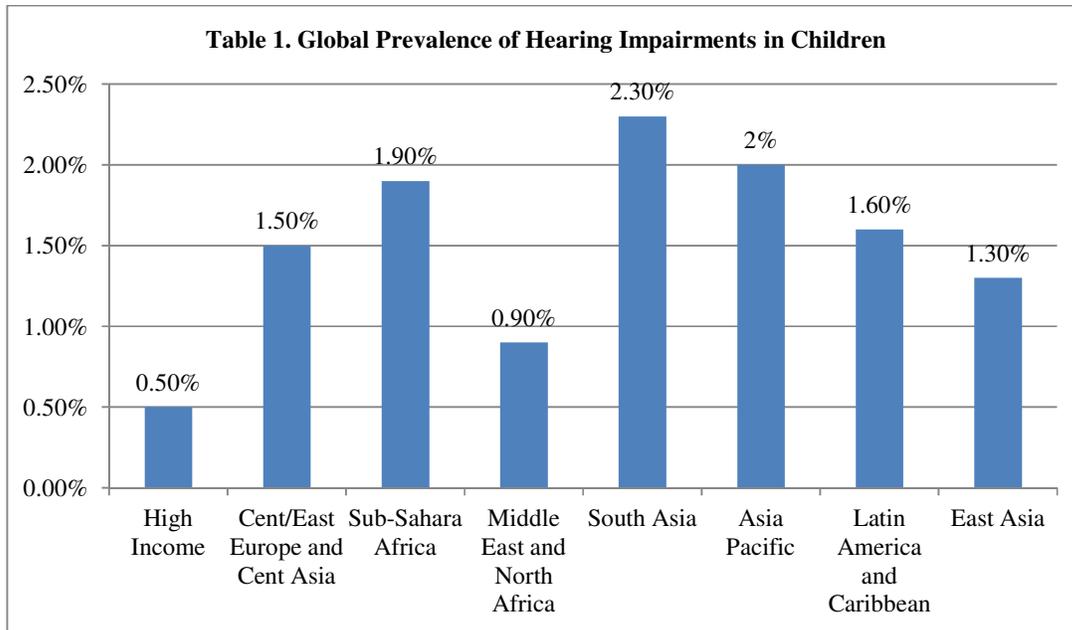
Globally, there is a high prevalence of persons with disabilities. The World Health Organization (WHO, 2005) estimates that approximately 600 million people (ten per cent in any country) in the world experience impairment of various kinds including hearing impairments.

Further, WHO (2012) as indicated below shows that 328 million (91%) of persons with hearing impairments are adults while 32 million (9%) represents the population of children with hearing impairments in the world. Of this population, 177 million (40%) are females while 183 million (51%) people are males.



(Source: WHO 2012: 5)

The report by WHO (2012) further gives the global picture in terms of percentages of children with hearing impairments in different world regions as table 1 below shows.



(Source: WHO 2012: 7)

From the above table, we can see that the prevalence for hearing impairments in children is highest in the South Asia region followed by Sub-Saharan Africa.

For the purpose of this study, the term “hearing impairment” is used as an umbrella term that refers to all degrees of hearing loss, from slight to profound.

Studies show that children with hearing loss often demonstrate low socialization abilities compared to normally hearing children, regardless of whether they attend mainstream or specialized school settings (Weisel and Kamara, 2005). The less-developed ability of deaf children to act and interact effectively with significant others early in life may negatively affect the normal developmental processes of social construction. In turn, as deaf children proceed into later childhood and face greater and more diverse social demands, they may struggle to meet these challenges.

Another factor of interest that may contribute to deaf children's social difficulties is a lower level of self-worth and self-coherence, possibly arising from limited early communication and frequent social failure (Most, 2007). These findings point to important relationships among language, cognition, and social relationships that are relevant to every human development.

The impact of hearing loss on the early development of a child's language, cognition, and social-emotional competence can be pervasive. When a child has a hearing impairment of early onset, even of a relatively mild degree, the development of these skills is often delayed. Such delays adversely affect communicative, academic, and social success, which at a later age limit vocational choices.

A hearing loss, first and foremost, interferes with a child's detection and recognition of speech. According to Marschark (2000), sensorineural hearing loss (SNHL), may both filter and distort sound, or in the case of a conductive loss, may cause fluctuating hearing levels. In either condition, the development of auditory skills that are prerequisite to the development of receptive and expressive language skills, as well as speech intelligibility, are delayed. Such auditory skills include detection, discrimination, recognition, comprehension, and attention. In turn, a delay in the early development of auditory skills caused by a hearing loss negatively impacts a child's ability to learn and use an auditory–oral language system.

The filtering effects of a hearing loss, coupled with immature auditory skills caused by hearing impairment, typically impact the development of oral language in all domains. Leybaert (2005) observes that these domains are classified as form (syntax), or the rules of language, content (semantics), or the meaning of words, and use (pragmatics), or the use of language in social contexts. At the infant, toddler, and preschool levels, a delay in any of these domains causes comprehension, expressive communication, and learning problems. For school-aged children, learning problems related to hearing loss typically manifest as poor performance in language-based subjects, class tests, class participation, and verbal interaction with peers and teachers. When summed, the impact of these difficulties leads to reduced academic achievement and often to school failure, especially in the lower grades. Until a child learns to read for new information, most classroom learning is through the auditory channel.

Another negative outcome resulting from poor verbal communication skills is social isolation. The culmination of experiences with repeated failure can have a lifelong impact by contributing to low self-esteem and limiting vocational choices.

## **1.2 Statement of the problem**

Numerous studies have been conducted in the Western world on the difficulties that children with hearing impairments experience in interaction with hearing peers. For instance, a study

by Stinson and Whitmire (2000) indicates that deafness and hearing loss affects the child's ability to communicate and that communication is necessary for socialization. The study further indicates that social development plays a key role in school performance. This simply means that there may be concerns that a child with hearing impairments may have difficulties in developing relationships with family members, making friends and participating in both school and social activities.

It is however noted that very little has been documented in the Zambian context on hearing impairments and its implication on classroom learning. Hence this study sought to fill this gap.

### **1.3 Purpose of the study**

The purpose of the study was to investigate the impact of hearing impairments and its implications on classroom learning.

### **1.4 Objectives of the study**

The study was guided by the following objectives:

- 1.4.1 To determine factors that affect children with hearing impairments during classroom learning.
- 1.4.2 To determine whether lack of socialization affects academic performance of children.  
With hearing impairments
- 1.4.3 To devise interventions to assist in the socialization of children with hearing impairments.

### **1.5 Research questions**

- 1.5.1 What factors affect pupils with hearing impairments during classroom learning?
- 1.5.2 To what extent does lack of socialization affect academic performance of hearing impaired children?
- 1.5.3 What interventions should be put in place to assist in the socialization of children with hearing impairments?

### **1.6 Significance of the study**

Information obtained in the study may help to provide knowledge on hearing impairments and its implications on classroom learning.

The study has attempted to bring to the fore communication and academic needs of pupils with hearing impairments. It is also hoped that the study may draw attention of major stakeholders in the education of children with hearing impairments such as policy makers, teachers and parents. Pupils are also expected to benefit in the sense that whatever changes that may be effected as a result of the study will contribute positively to their educational welfare.

### **1.7 Delimitation of the study**

The study was only limited to children with hearing impairments in selected Special schools and Units of Lusaka District.

### **1.8 Limitation of the study**

Conducting this study was limited by various factors. Some of factors included accessing selected Special Schools and Units within Lusaka District. This was because Special Schools and Units are not located in one place. As a result more time was spent on data collection than anticipated. The other limitation was that the researcher sometimes had some difficulties communicating with respondents especially pupils with hearing impairments who entirely depended on sign language for their communication. However, through Lip-reading and with assistance from a qualified sign language interpreter who was engaged from Zambia Institute of special Education (ZAMISE) the researcher managed to communicate well with pupils with hearing impairments during the focus group discussion.

### **1.9 Theoretical framework**

The theory that guided this research is the social construct theory by Lev Vygotsky. The social construct theory proposes that linguistic constructions at all levels of grammar and discourse are crucial indicators of social identity for members as they regularly interact with one another; complementarily. It indicates that speakers attempt to establish the social identities of themselves and others through verbally performing certain social acts and verbally displaying certain stances. Social acts in this sense meant performing any socially recognized goal-directed behaviour such as making a request, contradicting another person, or interrupting someone (Ochs, 1990). On the other hand, stance meant displaying of a socially recognized point of view or attitude. Therefore as the theory states, competent native speakers build identities such as woman, man, mother, father by performing certain kinds of

acts and displaying particular kinds of affective stances. This however was not the same with children with hearing impairments. This is because children whose oral language is well developed may use a verbal act or stance in an attempt to construct not only their own identities but the social identities of their interlocutors. Because children with hearing impairments have deficits with oral language, they were not being able to attempt to form such social construct. Therefore, this theory was found to very appropriate for this study.

### **1.10 Definition of terms**

**Effect:** A result or change of something

**Deficit:** Lack of something

**Hearing Impairment:** An impairment in hearing, whether permanent or fluctuating

**Socialization:** Life long process of providing an individual with the skills and habits necessary for participating within his or her society or environment.

**Sign language:** Gestural manual language for people with hearing impairments

**Communication:** Refers to any act by which one person gives to or receives from another person information about that person's needs, desires, perceptions, knowledge, or affective states. Communication may be intentional or unintentional, may involve conventional or unconventional signals, may take linguistic or non-linguistic forms, and may occur through spoken or other modes.

**Prelingual deafness:** Deafness acquired before a person developed a language

**Hard of hearing:** Refers to someone who does not hear well because he/she was born with a hearing loss or may have lost some or all of his/her hearing later in life.

**Sensori neural deafness:** Deafness that results from damage to delicate sensory hair cells of the inner ear or nerves that which supplies it.

**Lip Reading/ Speech Reading:** A technique of interpreting speech by visually interpreting the movements of lips, face and tongue when normal sound is not available, relying also on information provided by the context, knowledge of language and any residual hearing.

**Fast Rate Discussion:** This refers to speed at which one speaks

**Post Lingual Deafness:** Deafness which develops after the acquisition of speech and language, usually after the age of six

**Academic maturation:** This refers to one's readiness to learn

**Deafness/Hearing Impairment:** It is a partial or total inability to hear.

**Self-concept:** This refer to how someone thinks about or perceives themselves

**Self-esteem:** How one feels about oneself. This could low self-esteem which comes as a result of poor self-image or high self-esteem which come as a result of been confident, happy, highly motivated and have the right attitude to succeed.

**Total Communication:** This refers to using any means of communication -sign language, voice, finger spelling, lip-reading, amplification, writing, gesture, visual imagery (pictures).

### **1.11 Summary**

This chapter has tried to provide justification of the need to conduct the study on the implications of hearing impairments on classroom learning. The background has clearly shown that pupils with hearing impairments may have certain factors working against them when it comes to classroom learning and if these people were to integrated into society, there was need to establish how the condition they have (hearing impairments) may have implications on the learning of the people.

## **CHAPTER TWO**

### **LITERATURE REVIEW**

#### **2.0 Introduction**

This chapter presents a review of relevant literature on hearing impairments and its implications on classroom learning. The literature is presented under the following sub headings drawn from research questions: factors that may affect communication of pupils with hearing impairments during classroom learning; lack of socialization and how it may affect academic performance of children with hearing impairments and interventions that should be put in place to assist in the socialization of children with hearing impairments.

#### **2.1 Common factors affecting classroom learning of children with hearing impairments**

Man is a social being and uses language always to interact with fellow human beings. Whatever level of language he/she decides to use provided those who interact have a common code, the purpose of communication is bound to be fulfilled.

The controversy of the 17<sup>th</sup> century on whether manual sign or oral language should take precedence or not in teaching has steadily crept into the community of the teachers of learners with hearing impairments especially in the latter part of 20<sup>th</sup> century. De L'Epee was associated with the "Silent signing" which he described as a natural language or mother tongue for the hearing impaired while Samuel Heinicke also emerged with the use of the "Pure oral" method and was able to teach the hearing impaired people with excellent effects (Bender 1960). Basically, each of these individuals had a way in which each thought was the best way of teaching children or learners with hearing impairments. It can be noted that De L'Epee believed that the only way to teach learners with hearing impairments was through the use of sign language which at that time was not conventional but natural. On the other hand, Samuel Heinicke had the different views who believed that learners with hearing impairments can only learn through the use of speech. This is what he basically termed as "pure oral" method.

Powers (2002) has defined speech as an aspect of language that can either be oral communication or spoken language made up of speech sounds or oral symbols. Therefore both language and speech serve cognitive and social functions. He further states that language

helps in organizing our perceptions, directing our thinking, controlling our actions, aiding our memory and modifying our emotions. Cognition in this case involves also the ability to store information, recall it, imagine and solve problems. However, speech and language deviations may invite penalties that can be devastating to the child with hearing impairments in terms of social, emotional, vocational life and interpersonal relations.

It is important to note that socially the children with hearing impairments will experience unfavourable comments such as name calling or teasing, isolation and frustration. Because of that, some children may begin to show behaviours such as truancy and delinquency. Others may lose self-confidence, poor academic performance and the tendency to drop out of school may be high. In addition, speech and language disorders restrict victims to choice of career and job appointments.

Learning within the school environment relies on language and communication skills and children who have experienced hearing loss in early life are likely to struggle with most aspects of schooling. Children who have difficulty performing tasks that require literacy and numeracy skills may become disinterested in learning and attend school less regularly. Consequently, they are less familiar with classroom routines and less able to interpret and participate in classroom activities when they do attend school. Ultimately, hearing loss may lead to school failure, absenteeism, early school dropout, and reduced employment opportunities (Bat-Chava, Martin and Kosciw, 2005).

Deafness results in an auditory deprivation which impacts on the development of the auditory language system. Both comprehension and expression, for instance, understanding and speaking are affected. A primary goal of education is to develop a level of linguistic proficiency to function successfully in society. According to Harris and Beech (1998), hearing children at school entry, while not yet literate, are well on their way to developing linguistic proficiency. Spontaneously, without direct teaching, they have mastered the complex rule-governed language of their environment. They know most, if not all, of the speech sounds (phonology), the function words and affixes (morphology), and the syntactically correct sentence types (syntax) of their language. For them, becoming literate involves learning the visual or print form of the already mastered auditory language.

Reading and writing then become the vehicles for language expansion and for academic learning.

On the other hand, at school entry, the child who is deaf or hard of hearing may not have attained the fluency in auditory language taken for granted in hearing children. The route to literacy or competency in the visual language system will be longer and more arduous than that of hearing peers. However, the innate human potential for language acquisition is there. For many children who are deaf or hard of hearing, the environmental trigger for continued activation of this potential will be the linguistically rich environment of the public school. Students who are deaf or hard of hearing will present unique educational challenges. There are many barriers they face in attempting to comprehend classroom instruction and the educational materials provided for their use. Higgins (1980) assert that problems deaf children face are mainly language based and may stem from one or more of three areas: the student may simply not have acquired the vocabulary or the language structures being utilized in the discussion; or the student may have not yet developed the pragmatic skills to help them deal with their lack of comprehension, for instance, they may not know how to formulate a request for repetition or clarification; or the student has developed a low sense of self-esteem from making repeated mistakes because of not hearing things correctly and has become less of a risk taker and will pretend to understand even when he doesn't.

Leybaert (2005) observes that students who won't or can't seek help during the learning process when they don't understand what is presented in that lesson are at high risk of failure in an inclusive setting. To combat this problem, it is necessary for teachers to check comprehension by periodically asking questions of the student that require expansion of the topic. It may also be necessary to instruct the student in the techniques necessary to request clarification or repetition. Language will not grow nor will it become the instrument for academic learning unless the student who is deaf actively participates in his own language learning.

The negative effect of hearing loss on language acquisition, and subsequent reading, writing and learning, is likely to be magnified by a range of issues that impact on the educational experiences and outcomes students face. Many students with hearing impairments have difficulties adjusting to a classroom where the language and environment differ from that of their home environment.

Studies show that hearing loss can have a major effect on the behaviour and self-esteem of a child with hearing impairments. Children may perceive themselves as different if they have

hearing problems or difficulty communicating with others (King and Quigley, 1985), especially if they wear cochlear implants/hearing aids and/or utilize an frequency modulation (FM) system (wireless communication). A reduced ability to communicate may interfere with development of age appropriate social skills (they may appear “out of it,” be socially immature, and miss important social cues). This negative self-image can further be compounded if an uninformed teacher faults (mistakes) a child with hearing impairments for “daydreaming,” or “hearing when s/he wants to,” or “not trying.” This simply entails that a teachers who is not well vested in issues of hearing impairments who mistake failure by the child with hearing impairments to respond to instructions as the child been in a state of hallucinations.

In addition to the impacts mentioned many children who have a hearing loss may be less attentive, easily frustrated and appear less confident in the classroom than their normal-hearing peers (Mayer, 2008). It is equally important to note that often these children are more fatigued than their hearing peers due to the level of effort needed to listen during the day. Increased fatigue levels put these students at risk for irritable behaviour in the classroom. These factors can have a further impact on their academic performance.

Stinson and Antia (1999) also highlight barriers to classroom participation for deaf children. They cite fast rate of discussion; rapid turn-taking; frequent changes of topic; inclusion of many speakers in discussions; and instances where several students speak concurrently leading to unmanageable levels of noise. For instance, pupils with hearing impairments cannot or will find it difficult to lip-read if the speaker is very fast when talking. This mainly affects pupils who have the skill to read from the lips of the speaker as he/she is talking. Equally pupils with hearing impairments require that a topic of discussion is maintained for some time before it is changed in order for them to grasp the concept. Overcoming these barriers requires skilled and sensitive management. Despite in-service training for teachers in mainstream schools who have deaf children in their class, there is no evaluation of whether this is adequate (Powers, 2002). Indeed, deaf students have reported that mainstream teachers lack deaf awareness (NDCS, 2001).

It is equally important to note that hearing loss affects not only educational performance, but also social and emotional wellbeing and social interaction, and can lead to behavioural problems (such as irritability, disobedience, distractibility, and over activity), which, in turn, can lead to social isolation. At school, children may be ostracised by their peers, and the

educational and social problems they experience may lead them to leave school early. Many children with hearing loss will also have behavioural problems at home that may damage the child's wellbeing as well as the wellbeing of the person taking care of this child. This simply means that the behavioural problems exhibited by the child with hearing loss will interfere with the peace of other people in the community and this consequently lead to poor family-community relationship. Poor social and emotional wellbeing, behaviour, and social skills add to the range of disadvantages experienced by many children with hearing impairments (Weisel and Kamara, 2005), and can have long term, negative social impacts, including limited employment options, increased risk of anti-social behaviour and drug use and increased risk of contact with the criminal justice system.

Furthermore, it is imperative to learn that a key aspect of development for every child, whether deaf or hearing, is the ability to interact socially. Social interactions and friendships in childhood are associated with a wide range of factors related to psychological well-being and can be considered protective factors against life stressors and developmental challenges, such as those faced by deaf children. Having close positive peer relationships is associated with increased self-esteem, emotion regulation, successful adjustment to school transitions, and positive attitudes toward school (Kyle and Harris, 2010). However, peer rejection is related to the reverse. Studies by Antia and Kreimeyer (1992), have found that isolated children display more internalizing problems, such as depression, anxiety, and low self-concept, while concurrently disliking school and performing more poorly academically.

Peer relationships offer children opportunities to practice key competencies related to interpersonal interactions, such as helping, sharing, and negotiating with others. The establishment of positive peer relations is crucial for children's global socio-emotional development, advancing emotional regulation and expression, while simultaneously fostering communication skills and aspects of cognitive development, such as perspective taking (Harris and Beech, 1998). Harris and Beech, (1998) further indicate that friendship building is a developmental goal for children and contributes to later adjustment and life satisfaction. Therefore, peer friendships could provide deaf children with opportunities to develop specific social, emotional, and cognitive skills, alongside increasing their overall well-being and self-confidence. However, rejection by peers or the absence of friendships could lead to increased psychosocial and educational difficulties for deaf children, over and above the challenges they can already face.

A report by Educational Quality Improvement Program (EQUIP 3, 2006) indicates that in developing nations, ninety per cent (90%) of learners with hearing impairments were born into hearing families where there was no exposure to sign language or to the existing culture of hearing impairments. These learners with hearing impairments were typically deprived of the communication skills they needed for social development, incidental learning, academic pursuits, and gainful employment. This view is shared by Marschark (2000), who states that deaf children born to hearing families are more vulnerable to language delay. The potential mismatch of communication modalities used between deaf children and their families could be linked to this. Vulnerability to language delays can affect children's development of communication strategies; understanding of the thoughts and feelings of others (Lederberg and Everhart, 2000); ability to self-regulate especially in relation to attention, impulsivity, and emotions, rate of understanding social rules and overall social functioning (Stinson and Whitmire, 2000). Additionally, deaf children have been found to be 1.5 to 2 times more vulnerable to mental health difficulties (Bat-Chava, Martin, Kosciw, 2005); compared with their hearing peers. Problems can relate to loneliness (Most, 2007) and depression along with wider behavioural problems.

Hurt et al. (1978) in Britain found that teachers accomplished a number of things when they reduced the distance between themselves and their learners. At the very minimum, teachers thwarted the possibility of interpersonal needs interfering with the satisfaction of academic needs, improvement of communication, and promotion of interpersonal solidarity. Such that, when classroom communication was effective, the academic performance of learners improved. Another study by Barefoot (2003) reported that when classroom communication was effective, learning was easier, goals were met, opportunities emerged for expanded learning, learners and teachers connected better and more positive perceptions influenced the overall learning experience.

A research conducted by Savage et al. (1986) in the United States of America found that academic problems faced by learners with hearing impairments were primarily a result of poor communication between learners with hearing impairments and the teacher. They summarized learner's rates of reception and comprehension of materials using oral-only (lip reading), mainly-oral (lip reading and finger spelling), and simultaneous communication (lip reading, finger spelling, and signing). The study results revealed that overall scores did not reflect variation in sub scores at the single word, sentence, or syntax levels. The authors described the differences as illustrating how the change in communication technique affected

rates of information reception by learners with hearing impairments. Overall, the oral-only approach resulted in the lowest level of comprehension by learners with hearing impairments (46% of all utterances). The mainly-oral method of lip reading and finger spelling showed significantly higher rates of comprehension (65% of the language input).

Luckner and Muir (2001) further observed that learners with hearing impairments performed poorer in reading and mathematics than learners with normal hearing. This implied that if teachers did not have any knowledge of sign and oral language, the performance of these learners was below average all the time. Savage et al. (1986) also found that sign language helped learners dramatically: comprehension increased to over 86% using the simultaneous communication method. It appeared important, therefore, to augment teacher speech with sign language. Schlesinger (1983) suggested that the most important thing to remember about learners with hearing impairment is that most of them possessed normal intelligence. Although learners with hearing impairments had intellectual problems, most did not have low intelligence nor did they function cognitively below normal abilities. It was the impairment that made them seem unintelligent.

Research indicates that alongside the communication and psychological difficulties that deaf children can face, deaf children's social behaviour has been found to be more withdrawn and less collaborative than that of their hearing peers (Mayer, 2008). While there are mixed findings in assessing deaf children's peer acceptance, deaf children have been found to feel more rejected and neglected than their hearing peers (Nunes, Pretzlik and Olsson, 2001).

Further, studies show that deaf children do not have as many close friendships with hearing peers (Remme and Peters, 2009) and these relationships are more sporadic. Deaf children are also more likely to have a complete lack of friends in their mainstream class than their hearing peers (Nunes, Pretzlik and Olson, 2001).

It is also important to consider the attitudes and beliefs of hearing children regarding their deaf peers and what may mediate this. Most (2007) compared hearing peers who had regular contact with deaf children in mainstream education with those who did not, according to their perceived personal qualities and the student's attitudes of deafness. It was noted that the deaf student's speech intelligibility was associated with more positive perceived personal qualities by their hearing peers. Furthermore, the group that had contact with their deaf peers associated more positive qualities of those with poor speech intelligibility compared with students who did not have this contact.

Within this context of familiarity Alton (2008) found that peer acceptance of children with disabilities is affected by other children's understanding of a child's special needs. Nunes et al., (2001) found that hearing peers had varying attitudes toward deafness, with negative attitudes centred on frustration, misinterpretation, communication break downs, fear, and lack of familiarity with deaf peers and an unwillingness to consider children who are "different." This demonstrates that it is necessary to consider both the impact of characteristics associated with the deaf child and the attitudes and characteristics of their hearing peers on peer interactions and relationships.

It is important to observe further that people who are born deaf experience much discrimination and lack of understanding in society at large, whether they communicate using spoken or sign language (Higgins, 1980). This may be attributed to negative attitudes towards people who have communication difficulties (Morgan, Herman and Woll, 2002) as well as the fact that profoundly deaf signers have considerable difficulty in communicating with hearing people.

Speech that is of limited intelligibility has consequences for deaf children's interactions with others. Bat-Chava, Martin and Kosciw (2005) showed that deaf children in mainstream schooling were more likely to have hearing friends than those in specialist schooling, and that children with less severe hearing loss had more hearing friends than children with more severe hearing loss. However, placing a child who is deaf in a mainstream setting does not ensure that the child will be integrated (Antia and Kreimeyer, 1992). Among the reasons given for social segregation in integrated preschool settings were the low communicative competences of children who were deaf or hard of hearing (Nunes, Pretzlik and Olsson, 2001) and their limited understanding of how others think and feel (Bat-Chava, Martin and Kosciw, 2005). Hearing children who were friends with deaf peers reported friendships to involve prosocial functions (Nunes et al., 2001). Where communication is perceived as presenting an obstacle to friendship, deaf children are likely to be neglected (although not necessarily disliked) by their peers, and to feel correspondingly isolated.

Easy communication between deaf and hearing children is important for friendships and also for successful learning in class. Many of the skills deaf children need in order to interact successfully with hearing peers are language based. In addition to speech intelligibility issues referred to above, prelingually deaf children and adults typically display poor mastery of English vocabulary and syntax and find learning the rules of social communication

challenging (Bat-Chava, Martin and Kosciw, 2005). As most hearing people cannot sign, this frequently leads to the emergence of a 'shared handicap of communication' between deaf and hearing partners (Powers, 2002), causing both to be unsure and ineffective at communicating with each other.

Common pragmatic difficulties identified by researchers include: failure by deaf children and adults to clarify misunderstandings, solve disagreements or lead conversations (Stinson et al. 1996); inability to ask questions (Lederberg and Everhart, 2000) and difficulties explaining that they do not understand or in seeking clarification (Silvestre, Ramspott and Pareto, 2007). Another compounding factor is that deaf children are not always made aware of the lack of clarity of their own communication. Often, a hearing parent or teacher will fail to signal the ineffectiveness of a message or may themselves repair it for the child (Leybaert and Alegria, 1993), thereby denying deaf children the chance to develop the effectiveness of their interactions or take responsibility for their own communication. Reduced exposure to naturalistic, meaningful conversations and difficulty accessing incidental learning account for why these patterns of difficulties develop. Reduced quality and quantity of interactions means fewer opportunities for these behaviours to be modelled and fewer opportunities for the deaf child to apply the behaviours in natural settings (Leybaert and Alegria, 1993). Traditionally, speech and language therapy with deaf clients has focused on improving auditory perception, speech reading, speech production, vocal characteristics and understanding and use of language (spoken and, more recently, sign languages). Less consideration has been given to the everyday communication experiences of deaf children. Powers, (2002) points out that, despite the large literature on the limited pragmatic abilities of many deaf people, little of it relates to intervention directed at functional communication skills. In their review of treatment efficacy in children with hearing loss, Nunes, Pretzlik and Olsson, (2001) mention no studies that focus on either functional communication skills or social interaction. Given the potential implications of a deaf person's inability to interact with the hearing world, the need to develop therapy techniques to address this area becomes apparent.

While the factors referred to above may compound the poor educational performance associated with hearing loss, they, and various cultural differences, may also 'mask' hearing loss as a cause of poor educational performance. Hearing loss may also be overlooked as an underlying cause of poor educational performance in children who are quiet and reserved, or who alternatively "act-out" and exhibit behaviours that they have developed as a response to their hearing loss. These characteristics do not only apply to hearing impaired children, but,

when they are observed in students, teachers should consider whether they may be indicative of hearing loss.

## **2.2 Deficits in socialization and how it academic performance of pupils' with hearing impairments**

Various studies have been conducted to find out the performance of learners with hearing impairments. In Zambia for instance, findings over the years (Mbewe 1983; Mbewe 1991; Kalabula 1993 and Katwishi 1995) have shown that learners with hearing impairments have consistently trailed behind their hearing counterparts in academic performance. This is particularly in mathematics and language related subjects.

According to Oppong (2000) the problem of poor academic performance of learners with hearing impairments could be attributed to a number of factors. He outlined the following as some of the factors:

That from 1959 majority of learners with hearing impairments especially in Ghana had been educated in schools that employ either "Oralism", or "Total Communication" as the philosophy of communication for the hearing impaired. It meant that schools during that time that practiced Oralism taught and forced the hearing impaired to learn and use oral speech. On the other hand, schools that practiced Total communication used some form of sign language and speech simultaneously as the main mode of communication for the hearing impaired.

He also observed that most trained teachers of learners with hearing impairments could and still cannot communicate effectively either through Oral speech or Total communication with the hearing impaired - a situation that makes the school curriculum inaccessible to the hearing impaired. As a result of low motivation and being unaware of the peculiarities involved in teaching the hearing impaired many of the teachers of the hearing impaired, upon entering; the job soon become disappointed and frustrated within the first three years. Such teachers usually fail to make the school curriculum accessible to the hearing impaired.

Lack of parental involvement in the education of their children with hearing impairment was also cited as one of the factors that make learners with hearing impairments perform poorly on academic works. Oppong indicates that some parents do not provide their children with their school needs such as stationery, school uniform, house dress and so on. They instead dump their children in the school and would even not come for them when they are on holiday. The school authorities will have to transport the children to their parents. A child

who does not have the school materials to work with always has a low morale and this affects his/her academic performance.

Oppong also notes that socio-economic conditions of parents have either favourable or unfavourable effects on the academic performance of students. A parent who is financially sound is able to provide his/her child with all the school requirements. Such students have access to the use of hearing aids and other tools to aid them improve upon their academic performance. On the other hand parents who are not wealthy find it difficult to provide their children with the basic school needs such as books and uniforms. This situation could easily affect the performances of the children at school.

Another study carried out in London by Curzon (1991) found that classroom communication was needful for transmitting information and imparting information or knowledge. The communication process was vital to effective teaching and learning within a classroom environment. Classroom instruction that produced positive results acknowledged the need for a liberal use of nonverbal cues, learner involvement and team communication.

Hearing contributed greatly to understanding especially in a world where verbal communication dominates. Essel (1996) found out that hearing stimulated thinking, thinking was an exercise that concerned the use of the brain and the brain developed in quality as enough stimulation is given. Another study indicates that those who did not hear lived in silence; in isolation from the world of sound and that sound was what guided us socially and intellectually, (Avoke, 1997).

A study by Educational Quality Improvement Program (EQUIP3, 2006) targeted at persons with hearing impairments in Kenya, Ghana, Tanzania, Zambia, Uganda, Malawi, Namibia and Democratic Republic of Congo revealed that in developing nations, most teachers working in schools for learners with hearing impairments were hearing people who received traditional teacher training, but did not receive any specialization training in sign language or visual teaching techniques that were critical for visual learners. In addition, they were not trained in facilitating language, social, and cognitive development in learners with hearing impairments. Therefore, since sign language was rarely used to communicate between teachers and learners, learners with hearing impairments could not understand their lessons, and found it very difficult to learn. Most teachers of learners with hearing impairments resorted to writing on the board and pointing as their primary means of communication.

Marschark et al. (2006) also carried out a study in New York and revealed that regardless of teaching pedagogy, philosophy, or classroom management style, effective communication was fundamental to the instructional process. Academic development, therefore, was the demonstration of learning of subject content and process. Consequently, while communication access was extremely important to the overall successful education of learners with hearing impairments, no one communication technique should be at the forefront of academic performance.

Another consequence of a hearing loss is observed to be its negative impact on vocabulary development, reading, and writing. Inadequate knowledge of vocabulary can result in students with hearing impairments understanding only one meaning of multi-meaning words or can prevent them from deciphering subtle inferences or deductions during social contacts. According to Spencer, Ertling and Marschark (2000), when language skills are deficient and vocabulary is limited, reading skills also are likely to be poor. Therefore, given the complex nature of reading and writing, it is not surprising that these skills are a constant struggle for students with hearing impairments whose performance may be below that of their hearing peers. Mainstreamed students with hearing impairments have relatively grade-level reading abilities, however, when a child does have a reading problem academic success can be limited.

Studies have shown that deaf children's reading develops at a slower rate and that they make approximately a third of the reading progress each school year when compared with their hearing peers (Kyle and Harris, 2010). As a result, the severity of their reading delay increases as they progress through schooling, culminating in the average deaf school leaver having a reading age equivalent to that of a 9-year-old hearing child. The main reason that deaf children experience such severe problems with learning to read is that written English is essentially derived from spoken English, to which deaf children typically have limited access. This can adversely affect the development of both 'bottom up' skills involved in reading, such as phonological and syntactical knowledge, and also 'top down' skills such as vocabulary, language and world knowledge (King and Quigley, 1985). Deaf children are frequently reported to have weaker phonological skills in comparison with hearing peers, both in terms of phonological awareness and phonological coding (Leybaert and Alegria, 1993). Despite lower levels of ability, there is some evidence that phonological skills are predictive of reading achievement in deaf children (Harris and Beech, 1998). Phonic-based

interventions have had some success in improving reading levels of poor deaf readers (Trezekand Wang, 2006). These findings fit in with other recent evidence indicating that, for deaf and hearing children alike, phonological knowledge of the written language is essential if they are to become competent readers (Mayer, 2008). This phonological knowledge relies on the development of phonological representations that Leybaert (2005) argued are mainly based on visual (lip-reading, Cued Speech, finger-spelling and alphabetic script) rather than acoustic phonology. Unfortunately, the consequences of poor literacy are that many deaf children leave school with fewer qualifications than their hearing peers ((Nunes, Pretzlik and Olsson, 2001); deaf adults are four times more likely to be unemployed and, of those working, are three times more likely than hearing adults to be earning a lower wage.

Of relevance to today's deaf adults are the findings of numerous research studies completed a number of years ago which showed that, despite amplification and speech training, the speech of individuals with severe to profound deafness was on average only 20% intelligible (Power, 2002). This is because the typical audiological configuration of sensorineural deafness impacts significantly on the perception and, hence, the production of spoken language.

In general, because perception precedes production, it follows that speech sounds that are more difficult to access auditorily are also more difficult to produce. Many studies have identified common features of the speech of deaf people (Monsen, 1974) and find consonants to be affected more than vowels. Errors include omissions of word-final consonants, fronting/backing errors, fricatives realized as plosives and voicing errors. Reduction of consonant clusters and deletion of unstressed syllables have also been reported (Most, 2007). Whereas some of these errors are similar to those found in typically developing young hearing children, others are not, for instance where consonants that are less visible on the lips are replaced by other sounds, such as glottal stops.

Suprasegmental aspects of speech may also be affected among deaf speakers: voice quality may be compromised by excess laryngeal tension; resonance may be hypernasal, hyponasal, mixed or cul-de-sac (Boone and McFarlane, 2000). Deaf speakers may adopt a higher fundamental frequency compared to hearing speakers and exhibit difficulties with the use of intonation (Most, 2007); rate and rhythm of speech may be affected by the use of lengthened syllables, longer pauses between words and shortened voiced segments.

### **2.3 Measures to assist in the socialization of children with hearing impairments**

A recent intervention developed by Threadgill and Schamroth (Schamroth and Threadgill, 2007) currently in use in the UK is the *smiLE* approach (Strategies and Measurable Interaction in Live English). This intervention focuses on developing deaf people's communication skills in real communication situations.

The therapy involves filming deaf clients in interactions with hearing people and using the film to help them evaluate and consequently improve their own skills in group sessions, using role play and group feedback. Clients are taught a hierarchy of strategies to use to support their communication, ranging from improved speech intelligibility to gesture and written language. Two small-scale studies have shown this approach to be successful in developing the functional communication skills of deaf children (Alton, 2008) and young adults (Lawlor, 2009) in live interactions with hearing people. Further research is needed to investigate the long-term benefits and generalization of new skills.

Marschark (2000) explains that those deaf children who are most competent socially tend to be those who actively participate in linguistic interactions with their parents from an early age. Good parent-child interaction allows deaf children to gain social knowledge, cognitive and problem-solving strategies, information about self and others, and a sense of being part of the environment. Spencer, Erting and Marschark (2000) conclude that there is a need to explicitly focus on teaching socio-emotional skills to deaf children and to emphasize, beginning in early intervention, the powerful role parents and professionals can play in promoting social competence. The study of hearing and deaf children's language and communicative development is inextricably linked with the overarching growth in their social cognitive skills. Children's expressive language (their first words) emerges from previous non-verbal interaction with adults, which in part fosters children's visual attention, turn-taking, labelling and language comprehension skills. All of this involves some ability on the part of the child to 'mindread' (Nurmsoo and Bloom, 2008).

It is equally important to note that most parents become emotionally disturbed when the news is broken to them by the clinician that their child has a handicapping condition. Parents are the very first persons to be emotionally upset and may go through series of negative emotions. These may range from shock, frustration, guilt, loss of self-esteem, denial, anger, depressions and acceptance (Gadagbui, 1998). The emotional stress that the parents go

through makes most of them reluctant to cater for their children at school. They therefore do not want to co-operate with teachers to provide the needs of the children, and this finally, has adverse effects on the academic performance of the children. Such parents need family support services. Gadagbui (1998) explained that family support aims at assisting families and their children with disabilities to realize their potentials as co-teachers, parents and learning re-enforcers of their work. Kirk et al (1993) as cited by Gadagbui (1998) also stated a number of roles parents should play. These were that:

Parents should serve as co-teachers since they take active part in the teaching process. For example, by their clinical visits to the professionals, they learn through active participation skills to teach their children while at home. One important skill is the communicative skills - the way to communicate with children is taught by the specialist; for example, sign language is taught so when the parent goes home she/he is able to teach the child.

Parents should help in planning the Individualized Educational Programme (IEP) since they have valuable information about the child and this will assist in planning according to the specific/special need of each child. This is unique in that each child is different from each other no matter the same level of disability since each child's problem is peculiar to himself or herself and needs a specific method to solve it.

Parents as well should serve as learning re-enforcers by their positive attitudes towards their child's nature of the disability.

Hence, parents by their unique roles serve as a link between the home and the school. The evaluation of the parents' role is essential in that this procedure helps to appraise the performance of their children. It can also help to support alternative remedies in terms of placement in schools, teaching methods and what positive roles to play to enhance and maintain acceptance behaviour pattern in children.

Most parents of the disabled refuse to take active interest in the education of their children. They refuse to provide the school needs such as writing materials, uniforms and textbooks. They will not attend Parent- Teacher-Association meetings to discuss the welfare of the children. All these in the final analysis affect their academic performance.

The issue of how deaf children of hearing parents enter into the mindreading game is complex. Several studies have demonstrated that deaf children of hearing parents as old as 10 years of age have persistent delays on mind read tasks (Schick et al., 2007) while deaf children of deaf parents score age-appropriately on the same tasks. The origin of these delays can be traced back to the very early interaction deaf infants' experience with hearing parents.

Part of this early atypical development is linked with difficulties in establishing good joint attention. These missed interactions arise because hearing parents are not aware of how to adapt their communication for a child that needs to share his visual attention between the speaker (in order to know that communication is taking place and to receive speech-reading and signing/ gestural cues) and the object being labelled. This fundamental difficulty in establishing connected communication leads to vocabulary learning delays and, perhaps more significantly, potential problems with interpreting intentional communication and the mindreading element of interpersonal communication.

Even children whose hearing parents start using sign language when their child is as young as 2 years of age have been shown to have difficulty with standard mind tasks compared to hearing children. In a longitudinal study of deaf children of hearing parents, Lawlor (2009) found that over a two-year period there were no changes in children's low performance on standard of mind tasks, while hearing peers already performed at ceiling on the first testing occasion.

## **2.4 Summary**

The general conclusion drawn from the literature reviewed was that hearing children at school entry, while not yet literate, are well on their way to developing linguistic proficiency. This is unlike a child who is deaf or hard of hearing who may not have attained the fluency in auditory language taken for granted in hearing children. For a child who is hearing impaired, the route to literacy or competency in the visual language system will be longer and more arduous than that of hearing peers. This is because such a child will entirely depend on visual presentation of literature excluding the auditory presentation. As a result, using only one channel of receiving information (through visual means), a child will take time to grasp the concept required for literacy development. Whereas reading and writing becomes the vehicles for language expansion and for academic learning, this however is not the case with children with hearing impairments.

It has been noted from the literature that if learners with hearing impairments do not interact with hearing learners, then it would be very difficult for them to excel in any learning environment. This is because most of, if not all the work that is presented in schools is in speech format that requires someone to have some oral language if one is to progress. However, failure to have a skill to interpret oral language becomes a challenges to learners

especially those who entirely depend on sign language for their communication. For this reason, literature has suggested that peer relations between the hearing learners and those with hearing impairments is necessary if the latter is to make very good progress in academic work.

The role of parents in enhancing the education of their children with hearing impairments has equally been pronounced. It has been established that learners whose parents are always supportive in their school work have tremendously improved on their school works. This is regardless of whether the child is disabled or not.

## **CHAPTER THREE**

### **METHODOLOGY**

#### **3.0 Introduction**

This chapter deals with the methods and procedures used in carrying out the study on the implications of hearing impairments on classroom learning in selected Special schools/ Units in Lusaka District. The chapter covers the research design, population, sample size, sampling procedure, instruments, pre-testing, data collection procedure and data analysis.

#### **3.1 Research design**

Research design has been defined as a program that guides the researcher in collecting, analysing and interpreting observed objectives (Polit and Hungler, 1996). Basically, it is a specification of the most adequate operations to be performed in order to test specified hypothesis or provide answers to specific questions. The researcher in this study used descriptive research design consisting both qualitative and quantitative methods. By using qualitative method, the researcher was guided by certain ideas, perspectives or hunches in the overall approach that was investigated and whose aim was to allow participants to provide information in more spontaneous way (Colman, 1987). The researcher used qualitative method as it required establishing the state of affairs on the implications of hearing impairments on classroom learning. This method was ideal because it permitted participants to discuss personal experiences during the focus group discussion (FGD). Descriptive research design was used because of its suitability in generating in-depth knowledge and helped in describing the state of affairs with regard to hearing impairments and its implication on classroom learning.

#### **3.2 Target Population**

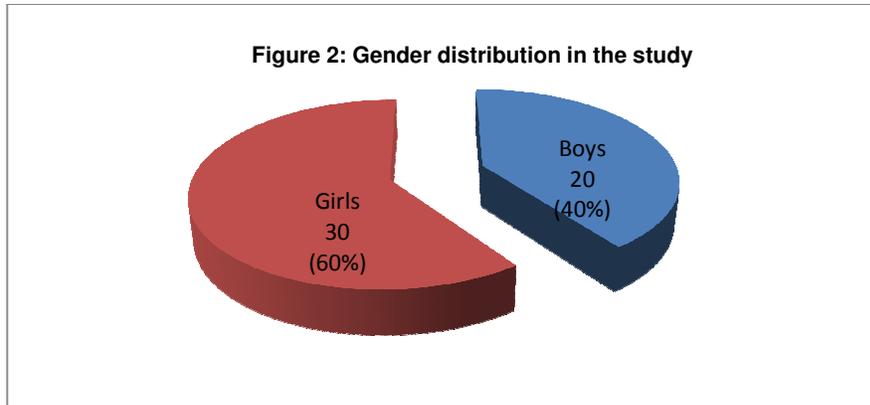
The population for this study consisted of all pupils with hearing impairments and specialist teachers drawn Special Schools/Units in Lusaka District. The population also consisted of parents to children with hearing impairments in Lusaka District.

#### **3.3 Sample Size**

A sample of eighty (80) participants was used for the study comprising fifty(50) pupils with hearing impairments drawn from grades 5-7 (i.e. figure 2), twenty (20) specialist teachers of children with hearing impairments and ten (10) parents of children with hearing impairments

from eight (8) selected Special Schools/Units in Lusaka District. Of the 50 pupils that participated in the study 20(40 %) of the sample were boys while 30 (60%) were girls. The age ranges of the pupils were between 11 and 16. The specialist teachers were targeted because of their direct involvement in the teaching of children with hearing impairments. Among the 20 specialist teachers 15 were female and only 5 of them were male.

### 3.3.1 Sex of participants in the study.



### 3.4 Sampling Procedure

The researcher used non-probability sampling methods and specifically purposive sampling when selecting the samples from pupils with hearing impairments, specialists' teachers and parents of children with hearing impairments. Non-probability sampling represents a group of sampling techniques that help researchers to select units from a population that they are interested in studying. Collectively, these units form the sample that the researcher studies to learn more about terms such as unit, sample and population, (Yin, 2014). A core characteristic of non-probability sampling techniques is that samples are selected based on the subjective judgement of the researcher, rather than random selection (i.e., probabilistic methods), which is the cornerstone of probability sampling techniques.

Yin (2014), further states that purposive sampling, also known as judgmental, selective or subjective sampling, reflects a group of sampling techniques that rely on the judgement of the researcher when it comes to selecting the units (e.g., people, cases/organisations, events, pieces of data) that are to be studied.

This method of sampling was used in order to reach research participants who had specific information required for the study.

### **3.5 Pilot Test**

Pilot testing of the instruments was conducted. This was administered at two schools in Lusaka district. The questionnaires set were distributed to specialist teachers and a focus group discussion was conducted with some selected pupils from these two schools. The researcher collected the questionnaire from the teachers and various corrections were made on the errors that were noted on the questionnaire.

The interview guide for the parents was also piloted on parents of children with hearing impairments.

Pilot testing of the instruments helped to improve the quality of the instruments in that certain contents that were not in line with the research title were eliminated. Through pilot testing, the researcher also removed double barred questions that were not clearly answered by the research participants.

### **3.6 Research instruments**

Studies by Pewitt (1995) indicate that social data is not quantifiable unless it is collected in a uniform manner from every unit in the study. Therefore, in this research, the researcher used the structured questionnaires to obtain information from the teachers and a focus group discussion (FGD) was used for the pupils with hearing impairments. Apart from that a semi structured interview was used to collect information from parents of children with hearing impairments. The questionnaires were specifically prepared for specialists teachers and required them to select from the given responses what they thought was the best response. The questionnaires were chosen because they took into account things such as anonymity, encouraging honest and objectivity and were economical in terms of time and resources. The FGD was chosen as a tool for data collection because it simultaneously solicited for opinions' and experiences of participants. FGD provided a certain quality control as participants provided checks on each other through member checking.

### **3.7 Data collection procedure**

Data for this study was collected between 25<sup>th</sup> November and 20<sup>th</sup> December, 2013. This was after the researcher sought authority from school authorities to conduct a research on pupils within their schools. Three instruments were used in collecting data and these were; questionnaires, oral interviews and focus group discussion. A total of twenty (20)

questionnaires were distributed to the participants who were expected to answer the questions individually by selecting their preferred choice of answers from the given options. All questionnaires from participants were collected ten (10) days after they were distributed.

The researcher undertook in-depth interviews with parents individually and data collected from these oral interviews were transcribed. As observed by Dexter (2005), interviews provide access to the content of a situation and make the researcher reach deeper meaning about the reality being studied.

Prior to conducting a focus group discussion with pupils with hearing impairments, a competent sign language interpreter was identified who also acted as research assistant. This is trained interpreter and works as a sign language interpreter for Zambia Institute of Special Education. Through this interpreter, the researcher assured that participants that whatever discussion that would be held, the information to be obtained was purely for academic purposes and that no names of participants would be taken or published. The sign language interpreter assisted in interpreting sign language during the FGD while the researcher who also understands sign language transcribed. Focus group discussion was conducted using discussion guides which had been pre-tested and appropriate adjustments made. The sign language interpreter sat closer to the researcher to easy communication. The participants were encouraged to freely participate in the discussion after rapport was created between the researcher and the participants. This was done by first asking participants' non-threatening questions that were generally concerned with daily school work. At the end of the discussion the researcher thanked the participants for their participation and once again assured them that information provided was purely for academic purposes and no names will be mentioned.

### **3.8 Methods of data analysis**

Using descriptive statistics of SPSS the researcher analysed data from teachers' responses quantitatively. This was mainly in form of frequencies that helped to yield the required tables and charts.

Data from focus group discussion was analysed qualitatively through themes that emerged from pupils' responses. These themes were coded for easy analysis. Data from interviews was also analysed through themes that emerged during the interviews.

### **3.9 Ethical consideration**

To conduct the research in an ethical manner, the researcher sought for consent of the school authorities and also permission from parents of children with hearing impairments. The researcher upheld the right to self-determination by allowing the participants to decide freely whether to participate in the study or not. The researcher ensured confidentiality of the respondent's responses by ensuring that the names of the participants were not revealed and instead codes were used to facilitate the numbering. Through this way, it was not possible for other persons to identify the participants with any part of the information they might have provided. This further ensured their rights to privacy.

### **3.10 Summary**

This chapter presented the methodology used in the study. A case study design was used to explore hearing impairments and its implications on classroom learning. The study population composed of learners with hearing, teachers of learners of special education needs and parents to children with hearing impairments. A total of eighty (80) respondents were used as the sample. This sample was selected using purposive and simple random sampling procedures. Three instruments namely, questionnaires, interview guides and focus group discussions were used to collect data. Thematic analysis was used to analyse qualitative data and Statistical Package for Social Sciences was used to analyse quantitative data in order to generate frequencies. Furthermore, ethical issues were considered in the process of data collection.

## **CHAPTER FOUR**

### **PRESENTATION OF FINDINGS**

#### **4.0 INTRODUCTION**

This chapter presents the findings on hearing impairments and its implications on classroom learning. These findings are based on the questionnaires, semi structured interviews and focus group discussion administered to the research participants. The findings are presented under the following themes obtained from the research objectives: factors that may affect communication of pupils with hearing impairments during classroom learning; whether lack of socialization affects academic performance of children with hearing impairments; and measures to assist in the socialization of children with hearing impairments. The chapter also presents the findings from the interviews held with parents. However, only variables that relate to hearing impairments and its implications on classroom learning are presented in this chapter.

#### **4.1 Teachers' views on common factors affecting classroom learning of children with hearing impairments**

Several factors that may affect communication of pupils with hearing impairments were analyzed and data presented. A likert scale format was used to collect data on factors that affect classroom learning of pupils with hearing impairment. The responses from specialist teachers are presented in the figures and tables below.

##### **4.1.1 Teachers' views on formation of friendship**

Teachers who participated in the study were asked to give their views on whether pupils with hearing impairments easily form friendship with hearing peers. Table 2 below gives the response of the teachers.

**Table 2: Teachers view's on whether pupils with Hearing Impairments easily form friendship with hearing impairments**

<b>Response</b>	<b>Frequency</b>
Strongly Agree	3
Agree	5
Not Sure	0
Disagree	8
Strongly Disagree	4

Table 2 shows teachers levels of agreement and disagreement on whether or not pupils with hearing impairments easily form friendship with their hearing peers. The results show that 8 participants agreed to the statement that pupils with hearing impairments easily form friendship with hearing pupils though this was with varying degrees with 3 strongly agreeing while the rest just agreed. However, as can be seen from the table above, majority of teachers (12) disagreed with varying degrees to that statement implying that most teachers felt that pupils with hearing impairments do not easily form friendship.

#### **4.1.2 Teachers' views on how lack of language development may affect formation of friendship**

This question sought to find out from specialist teacher if lack of language development affects formation of friendship. Results obtained from the study, as indicated by table 3 below, shows that 16 teachers agreed to the assertion that lack of language development may affect formation of friendship. However, 2 teachers indicated that they were not sure and 2 disagreed.

**Table 3. Teachers' views on how lack of language development may affect formation of friendship**

<b>Response</b>	<b>Frequency</b>
Strongly Agree	9
Agree	7
Not Sure	2
Disagree	1
Strongly Disagree	1

#### 4.1.3. Teacher's views on relating language development to formation of friendship

The following questions were posed to find out views of teachers and pupils on how language development affected formation of friendship for the hearing impaired pupils.

**Table 4: Teachers views on relating language development to formation of friendship**

Statement	Responses			
	SA	A	D	SD
1. Oral language development acts as a prerequisite to formation of friendship	12	3	5	0
2. Children who have problems with their speech development equally have difficulties with formation of friendship	10	6	3	1
3. Failure by children with hearing impairments to develop oral language affects their friendship formation.	14	2	2	2

The questions in table 4 above sought to relate language development to formation of friendship. The results show that 15 teachers agreed that oral language development acts as a prerequisite to formation of friendship. However, 5 teachers disagreed to the statement. It was equally observed that children who have problems with speech development equally have difficulties with formation of friendship. The findings from the study show that 16 teachers agreed that children with speech problems also have difficulties in forming friendships. It was however observed that 4 teachers disagreed that speech problems does not affect formation of friendships. The study also indicate that most of the teachers 16 of them agreed that failure by children with hearing impairments to develop oral language affects their formation of friendships. This statement was not however agreed by 4 of the teachers involved in the study.

#### 4.1.4 Teachers' views on whether fast rate discussion affect socialization of children with hearing impairments.

When the participants were asked to state whether fast rate discussion affects socialization of children with hearing impairments, varying responses were obtained as indicated by table 5 below.

**Table 5: Teachers’ views on whether fast rate discussion affects socialization of children with hearing impairments**

<b>Response</b>	<b>Frequency</b>
Strongly Agree	6
Agree	10
Not Sure	2
Disagree	1
Strongly Disagree	1

From the responses above, it can be seen that most of the participants (16) agreed to the statement that fast rate discussion affects socialization of children with hearing impairments. However, 2 could neither agree nor disagree and the rest of the participants disagreed.

**4.1.5 Teachers’ responses on how lack of skills in sign language contributes to poor socialization by children with hearing impairments**

**Table 6: Views from teachers on how lack of skills in sign language by teachers contributes to poor socialization by children with hearing impairments**

<b>Statement</b>	<b>Responses</b>			
	<b>SA</b>	<b>A</b>	<b>D</b>	<b>SD</b>
1. Teachers find it difficult to communicate with pupils in sign language	4	6	8	2
2. Sign language affects written expression of pupils with hearing impairments	12	6	2	0
3. Pupils with hearing impairments who are allowed to communicate with signs do not make efforts to learn speech	13	2	2	3
4. Teachers can’t sign and pass information correctly to their pupils through sign language	6	7	3	4
5. The use of sign language denies the post lingual’s speech development.	15	4	1	0
6. Teachers complain that they are unable to understand their pupils whenever they ask questions in sign language	5	6	5	4

Various responses were obtained from teachers with regard to how lack of skills in sign language may contribute to poor socialization of children with hearing impairments. Results from table 6 above show that 10 teachers indicated that they find it difficult to communicate with pupils in sign language. However, 10 other teachers did not agree with the statement. The findings equally indicated that 18 of the teachers agreed that sign language affects

written expressions of pupils with hearing impairments. The statement was however disagreed by 2 teachers who indicated that does not affect written expressions of pupils with hearing impairments. When teachers were asked to express their views on whether pupils with hearing impairments who are allowed to communicate using signs language do not make efforts to learn speech, 15 of them agreed to the statement while 5 disagreed. This surely indicates that pupils with hearing impairments who are allowed to communicate with sign barely make any attempt to learn speech.

The findings also revealed that 13 of teachers agreed that most teachers cannot sign and pass information correctly to their pupils. This clearly shows that there is communication break down between teachers and the pupils with hearing impairment. However, 7 of the teachers did not agree to the statement that teachers cannot use sign language and pass information correctly to pupils with hearing impairments. It was also observed by most teachers (19) that the use of sign language denies the post lingual's speech development. Therefore, this clearly shows that pupils who acquire hearing impairments after development of speech and are allowed using signs eventually lose the ability to use speech.

The study also indicates that 11 teachers complained that they were unable to understand their pupils whenever the pupils asked questions using sign language. This simply means that there was communication break down between the teachers and pupils. Although majority of the teachers indicated that they were unable to understand their pupils whenever the pupils asked questions in sign language, 9 teachers indicated that they had no problems to that effect.

#### 4.1.6. Prelingually deafness children develop social skills earlier than post lingually deaf children

**Table 7: Prelingually deaf children develop social skills earlier than post lingually deaf children**

<b>Response</b>	<b>Frequency</b>
Strongly Agree	0
Agree	5
Not Sure	2
Disagree	14
Strongly Disagree	0

Table 7 above indicates clearly that when participants were asked to indicate whether prelingually deaf children develop social skills earlier than post lingually deaf children, 14 of them disagreed with the statement while one participant was not sure. However, 5 participants agreed that prelingually deaf children develop social skills earlier than post lingually deaf children while 1 was not sure.

#### 4.1.7 Pupils' responses from the focus group discussion on factors that may affect communication of pupils with hearing impairments during classroom learning

Focus group discussions were conducted with pupils where a variety of questions were asked to pupils to express their view.

When pupils with hearing impairments were asked to state if they had friends at school, different responses were obtained. It was interesting to hear from most pupils that they had friends within the school. One pupil particularly indicated that:

*“Yes I have a lot of friends that I play with especially at home. At school, I don't have many friends but only those that I come with from the compound (13 years old grade 6 girl)”*

Another participant in the discussion disclosed that:

*“I have many friends in my class and there everyone is my friend but in other classes not everyone is my friend, (12 year old grade 5 girl)”*

The other issue that pupils were asked was to discuss was whether it was easy or difficult for them to make new friends. Pupils on this matter gave a variety of response both in favour and against the statement. One pupil stated that:

*“At first it was difficult to form friends because it was not easy to communicate with other pupils. But it is easy to make friendship especially with people that already know you and know where you are coming from, (12 year old grade 6 boy)”*

Another female grade 7 pupil indicated that:

*“It is not easy because most of the people laugh and make fun of us. So I can say it is not easy, but with those who speak yes it is very easy, (14 year old)”*

Pupils in the study were also asked to indicate if all their friends were those with hearing impairments. Most of them gave out responses indicating that that they had both the hearing and hearing impaired friends. One pupil in particular stated that:

*“No, not all my friends are hearing impaired. Some of them are not deaf, but it is not easy to communicate with someone who is not deaf but easy to communicate with our fellow deaf, (13 year old girl)”*

During the focus group discussion, pupils were also asked to discuss and express their thoughts on whether lack of oral language affects their formation of friendship within the school. Different views were expressed on this matter and pupils gave out mixed feelings. More interesting were views given out by two grade 6 pupils who stated that:

*“Maybe yes or no, because for me it is very easy to form friendship with someone who is deaf but someone who speaks, I don’t know maybe they know better, (14 year old girl)”*

Another pupil indicated that:

*“if it is friendship with those who speak, maybe it affects but for us deaf, it is not a problem to communicate with deaf people. Those who speak know better maybe if I was speaking, it was going to be different, I don’t know, (15 years old boy)”*

#### **4.2 Teachers views on socialization and how it may affect academic performance of children with hearing impairments**

Under this theme, various questions were asked and analyzed using different variables to ascertain whether lack of socialization may affect academic performance of children with hearing impairments.

##### **4.2.1 Teachers’ responses on whether pupils with difficulties in language development perform academically at the same pace with those without difficulties**

Participants in the study were asked to indicate whether pupils who had difficulties in language development also performed at the slow pace compared to those without language difficulties.

Table 8 below shows their response and it clearly indicates that most of the participants, (16) agreed to the statement, 2 were not sure and 2 disagreed to this statement on whether pupils with difficulties in language development perform academically at the pace with those without difficulties.

**Table 8. Teachers’ views: Pupils with difficulties in language development do not perform well academically at the same pace with those without difficulties.**

<b>Response</b>	<b>Frequency</b>
Strongly Agree	7
Agree	9
Not Sure	2
Disagree	1
Strongly Disagree	1

#### **4.2.2 Teachers' views on whether lack of socialization in children with HI affects their academic performance**

There was overwhelming response from participants in agreement to the statement that lack of socialization in children with hearing impairments affects their academic performance. According to the results obtained, 18 of the participants were in agreement with 13 strongly agreeing while 5 simply agreeing. However, only 2 participants disagreed to the statement on whether lack of socialisation in children with HI affects their academic performance as indicated by table 9 below.

**Table 9: Teachers' views: Lack of socialization in children with HI affects their academic performance**

<b>Response</b>	<b>Frequency</b>
Strongly Agree	13
Agree	5
Not Sure	0
Disagree	1
Strongly Disagree	1

#### **4.2.3. Views on whether lack of socialization affects self-esteem of children with HI**

**Table 10. Teachers' views on whether lack of socialization affects self-esteem of children with HI**

<b>Response</b>	<b>Frequency</b>
Strongly Agree	13
Agree	5
Not Sure	0
Disagree	1
Strongly Disagree	1

Table 10 above shows the response as to whether socialization affects self-esteem of children with hearing impairments. Though various responses were obtained, it can clearly be seen that most of the responses obtained were in favour that lack of socialization affects self-esteem of children with hearing impairments.

#### 4.2.4. Teachers' views: Whether lack of language development affects academic self - concept and academic maturation

**Table 11: Whether lack of language development affects academic self-concept and academic maturation**

Table 11 below gives a description of how lack of language development may affect the academic self-concept and academic maturation of learners with hearing impairments.

Statement	Responses			
	SA	A	D	SD
1. Pupils with HI have problems paying attention in class (lack of selective attention, lack of concentration, are stressed up, always appear fatigued)	5	8	4	3
2. Pupils with HI do not understand teachers' explanations (i.e. Gives wrong responses to questions, fails to communicate effectively with the teacher).	7	4	5	4
3. Pupils with HI feel shy to ask questions in class	9	5	0	6
4. Pupils with HI do not have friends at school	6	4	7	3
5. The academic performance of pupils with HI is affected by communication barriers.	14	4	2	0

Teachers' views on whether lack of language development affects academic self-concept and academic maturation of pupil with hearing impairments showed varying responses. The results show that 13 teachers indicated that pupils with hearing impairments have problems paying attention in the classroom. Only 7 teachers did not agree with the statement. The study further indicates that 11 teachers agreed that pupils with hearing impairments do not understand teachers' explanation. This was however disagreed by 9 teachers.

When teachers were asked to state their views on pupils with hearing impairments asking questions in class, 14 of them agreed that pupils with hearing impairments felt shy to ask questions in class. The rest of teachers (6) did not however agree with the statement.

Views as to whether pupils with hearing impairments had friends showed that there were equal responses from teachers both in favour and against the statement. Contrary to this, 18 teachers agreed that academic performance of pupils with hearing impairments is affected by communication barriers. This is in terms of how pupils with hearing impairments perform both in numeracy and literacy skills. However two (2) teachers accepted that the academic performance of pupils with hearing impairments is affected by communication barriers.

**4.2.5. Teachers’ views on whether pupils with HI who benefit from spoken language perform better than those who entirely depend on sign language**

This statement sought to find out whether children with hearing impairments who benefits from spoken language perform better academically than those who entirely depend on sign language. Table 12 below shows that the majority of participants (18)) agreed that children with hearing impairments who benefit from spoken language actually performed better academically than those who depend on sign language. This was however disagreed by 5 participants who were also involved in the study.

**Table 12. Views on whether pupils with HI who benefit from spoken language perform better than those who entirely depend on sign language**

<b>Response</b>	<b>Frequency</b>
Strongly Agree	10
Agree	8
Not Sure	0
Disagree	2
Strongly Disagree	0

**4.2.6 Teachers’ responses on meeting communication needs of pupils with hearing impairments.**

**Table 13: Responses on meeting communication needs of pupils with hearing impairments**

Table 13 below shows teachers responses on meeting communication needs of pupils with hearing impairments.

<b>Statement</b>	<b>Responses</b>	
	<b>Yes (%)</b>	<b>No (%)</b>
1. Sign language meets the communication (learning) needs of the deaf	20	0
2. Sign language helps pupils with hearing impairments in communicating with hearing public	16	4
3. Sign language helps the hearing impaired pupils play with their hearing peers.	12	8

When teachers were asked to express their views on whether sign language meets the communication needs of the deaf in the classroom setting, all the teachers, that is 20 agreed to the statement. This clearly indicates that pupils with hearing impairments entirely depend on sign language to meet most of their communication needs. It was interesting to see that 16

indicated that sign language helps pupils with hearing impairments in communicating with the hearing public. This was however disagreed by 4 of the teachers.

It is interesting to also observe that 12 teachers accepted that sign language helps the hearing impaired pupils to play with their hearing peers although 8 of these teachers were not in agreement with the statement.

**4.2.7 Teachers’ views on whether lack of oral language development affects academic performance of learners with hearing impairments.**

Participants in the study were further asked to state whether lack of oral language development in learners with hearing impairments affected their academic performance. Table 14 shows varying responses indicating that participants had mixed views. According to the responses obtained, 18 participants agreed that lack of oral language development affects academic performance of learners with hearing impairments, (Table 14)

**Table 14. Views on whether lack of oral language development affects academic performance of learners with hearing impairments.**

<b>Response</b>	<b>Frequency</b>
Strongly Agree	10
Agree	8
Not Sure	0
Disagree	2
Strongly Disagree	0

However, results also show that only 2 of the participants out of the 20 disagreed to the statement as indicated in table 14 above.

**4.2.8 Prelingually deaf children perform better academically in school than post linguually deaf children.**

Table 15 below indicate participants’ responses on whether prelingually deaf children perform better academically in school than post linguually deaf children.

**Table 15. Views on whether Prelingually deaf children perform better academically in school than post lingually deaf children.**

<b>Response</b>	<b>Frequency</b>
Strongly Agree	2
Agree	5
Not Sure	1
Disagree	9
Strongly Disagree	3

Results indicated in table 15 above clearly indicate that participants were divided in their views on whether prelingually deaf children perform better academically than post lingually deaf children. Seven (7) participants agreed to the statement of course with varying degrees of agreement while 1 was not sure. However, majority of the participants disagreed to the statement. The variation of those who disagreed shows 9 simply disagreed while 3 strongly disagreed.

**4.2.9 Responses from the focus group discussion on whether lack of socialization affects academic performance of children with hearing impairments**

Pupils were asked to express their views on various issues with regard to whether lack of socialization affects academic performance of children with hearing impairments.

One issue that was discussed here was whether lack of oral language affects the academic performance. Various responses were discussed here and a variety of responses were obtained both for and against the statement. One particular response given out by a grade 7 pupil indicated that:

*“Maybe because people in my school and teachers do not understand me and especially the people with deafness so it is not easy to communicate. If the teacher does not know sign language, it is difficult for me to learn in class, (16 year old boy)”.*

Another grade 6 girl involved in the study had the following to say:

*“if the teacher knew sign language, it would have been easy for me to learn language and mathematics but when*

*the teacher doesn't use sign language, it can affect my performance and most of my teachers use speech, so it is difficult for me to learn, (14 year old)"*

Most of the pupils expressed positive views when they were asked to discuss whether they find it easy to learn in the same environment with hearing children. However, one particular pupil expressed the following sentiments:

*"Yes, since they learn in their own classes and their own teachers but when they pass at my class, if the teacher is not there they sometimes start problems, they also like watching us when we are learning, I don't like that (14 year old grade 5 boy)".*

When pupils were asked to discuss their thoughts on whether they had been easily accepted by their hearing counterparts, it was clear from the responses that most of them were affirmative in their response indicating that they had been accepted. One pupil had the following to say:

*"For me, I have no problem because we even play football together when we are at home. I don't know with my friends but when we are playing, we play together though at times they don't like choosing me especially when they are playing according to classes, (15 year old grade 7 boy)".*

During the focus group discussion, pupils also discussed their views on whether their teachers used sign language or speech when teaching them. Most views obtained from pupils showed that teachers used total communication when talking to them. This simply means that teachers used both sign language and speech when teaching the pupils. One grade 6 girl particularly had the following to say:

*"My teacher uses both sign language and speaks when communicating to me. Whenever the teacher is teaching, she is always using sign language and speaks slowly so I can see her lips, (14 year old)".*

### **4.3 Teachers' views on interventions that should be put in place to assist in the socialization of children with hearing impairments**

This theme required the participants in the study to indicate various interventions that should be put in place to assist in the socialization of children with hearing impairments.

#### **4.3.1 Teachers' views on whether parent-child relationship strengthens socialization of children with hearing impairments**

When participants were asked to indicate their views on whether parent-child relationship strengthens socialization of children with hearing impairments, there was overwhelming response with 19 participants giving an affirmative response though in varying degrees. It can be seen that 13 participants strongly agreed with the statement while 6 participants simply agreed, giving a total number of those that agreed to 19. However, only 1 disagreed to the statement as indicated in table 16 below.

**Table 16. Teachers' views on whether parent-child relationship strengthens socialization of children with hearing impairments**

<b>Response</b>	<b>Frequency</b>
Strongly Agree	13
Agree	6
Not Sure	0
Disagree	1
Strongly Disagree	0

#### **4.3.2 Teachers' views on whether pupils with hearing impairments benefit from linguistic interaction**

The findings on whether pupils with hearing impairments may benefit from linguistic interaction indicates that 6 participants strongly agreed with the statement while 10 simply agreed giving the total responses in favour of agreement to 16. Table 17 below shows the response to this statement.

**Figure 17. Views on whether pupils with hearing impairments benefit from linguistic interaction**

<b>Response</b>	<b>Frequency</b>
Strongly Agree	6
Agree	10
Not Sure	1
Disagree	3
Strongly Disagree	0

It can equally be seen from the above table that 1 participant was not sure while 3 simply disagreed.

**4.3.3 Teachers of children with hearing impairments should encourage their learners to use speech during the teaching and learning process.**

Table 18 below shows the results to the statement that indicated that teachers of children with hearing impairments should encourage their learners to use speech during teaching and learning process. The responses to this statement as indicated in table 18 below show that 14 participants were in disagreement to the statement while 6 agreed to the statement.

**Table 18. Views on whether teachers of children with hearing impairments should encourage their learners to use speech during the teaching and learning process.**

<b>Response</b>	<b>Frequency</b>
Strongly Agree	3
Agree	3
Not Sure	0
Disagree	9
Strongly Disagree	5

**4.3.4 Teachers' views on whether children with hearing impairments should be encouraged to interact with their hearing peers.**

Participants in the study were further asked to state whether children with hearing impairments should be encouraged to interact with their hearing peers. Table 18 shows the results to this statement and it can be clearly seen that 17 participants were in total agreement while 3 disagreed to the statement.

**Table 19. Views on whether children with hearing impairments should be encouraged to interact with their hearing peers.**

<b>Response</b>	<b>Frequency</b>
Strongly Agree	11
Agree	6
Not Sure	0
Disagree	1
Strongly Disagree	2

**4.3.5 Teachers' views on whether interaction between hearing children and their hearing impaired colleagues promote academic performance of hearing impaired learners.**

Participants in the study were asked to give their views on whether interaction between hearing children and their hearing impaired colleagues promote academic performance of children with hearing impairments. The results as indicated in the figure below indicate that all the participants in the study were in agreement to the statement though in varying degrees. 13e participants strongly agreed to the statement while 7 of the participants simply agreed as shown in table 20 below.

**4.3.6 Table 20. Views on whether interaction between hearing children and their hearing impaired colleagues promote academic performance of hearing impaired learners.**

<b>Response</b>	<b>Frequency</b>
Strongly Agree	13
Agree	7
Not Sure	0
Disagree	0
Strongly Disagree	0

**4.3.7 Responses from the focus group discussion on interventions that should be put in place to assist in the socialization of children with hearing impairments.**

This theme in the discussion tried to get views of pupils on interventions which they thought could help them in socialization and consequently help them improve in the academic performance.

During the focus group discussion pupils with hearing impairments were asked to express their views on whether they benefit from the use of speech by the teachers in class. Various

responses were obtained as pupils expressed themselves differently. The following were indicated by one grade 6 pupil and one grade 7 pupils respectively:

*“I don’t know, but if the teacher is speaking and then I can read from her lips, then I can benefit from the teacher speaking, (14 year old girl)”*

*“For me, I don’t benefit from my teacher because it is difficult to see what the teacher is saying. He is always speaking very fast and this makes it difficult for me to follow. With sign language yes, (16 year old boy)”*

The pupils were also asked to discuss during the focus group discussion whether they benefited academically from interacting with their hearing peers. Interesting responses were obtained as pupils discussed with majority of them acknowledging that they benefited a lot from their interaction with hearing peers. One pupil in particular had the following to say:

*“Me I benefit from my friend who speaks because he helps me when I knock off from school when we are home playing. We form a small class of boys and girls and this person teaches us a lot of things, (14 year old grade 5 boy)”*

However, another pupil had a different view and she had the following to say:

*“Maybe if we are in the same class the hearing friend can teach me how to do mathematics and help me in school work. Like my neighbour from Mulongoti school helps me when I come at home in mathematics, (13 year old grade 5 girl)”*

During the focus group discussion, most pupils indicated that they got a lot of assistance from their parents when working on the homework which was usually given to them at school. One girl had the following to say:

*“My mother is very good to me and she is always asking me to teach her some sign language whenever I go home. When it’s homework, she always sees that I do the work and if I fail, she assists me, (14 year old, grade 6 girl)”*

#### **4.4 FINDINGS FROM THE INTERVIEWS WITH PARENTS**

The findings from the interviews with parents as presented in the themes below indicated that:

##### **Factors that affect communication of children with hearing impairments**

Most parents felt that their children were discriminated against because of their condition. Some parents observed that since their children had a label attached to them, it was acting as a means of discrimination. She observed that:

*“My child is called ‘nkoma matwi’ (deaf) sometimes by the friends and this is a sign of discrimination”*

Parents indicated that it was easy for their children to form friendship especially with people from the same area. They indicated that at first it was difficult for their children to be accepted within the community, but as time went on most people especially peers from the same area would accept them as friends.

Most parents admitted that their children had both hearing and hearing impaired friends. One parent in particular indicated that:

*“My child interacts easily with deaf peers but he also has hearing peers whom he plays with within the compound”*

With regard to which mode of communication parents used with their children, the researcher found out that most parents indicated that they used both oral language and sign language to speak to their children with hearing impairments. One parent in particular had this to say:

*“At first I never wanted my child to use sign language because I thought it was more stigmatizing, but I later realized that I was just still in denial. However, as time went on I finally accepted the condition of my child and since then I communicate with her using signs, after all it is also a language”*

##### **Lack of socialization and how it may affect academic performance of pupils with hearing impairments**

Parents felt that lack of speech development in their children with hearing impairments had greatly affected their academic performance. Parents attributed poor academic performance to lack of exposure to interaction with peers. As indicated by one of the parents:

*“If a person has difficulties interacting with others it becomes difficult for him/her to learn from others. This simply means that such a person will not share ideas with friends and this affects how a person performs academically”*

Most parents felt that hearing friends were very helpful to children with hearing impairments especially if they fully understood their needs. They indicated that interaction between the hearing and hearing impaired helps in reducing stigmatization and this promotes mutual friendships.

#### **4.5 Summary of findings**

This chapter has presented the findings on hearing impairments and its implications on classroom learning. The findings of the study were in line with the objectives. The objectives of the study were as follows: To determine factors that affect communication of children with hearing impairments during classroom learning; To determine whether lack of socialization affects academic performance of children with hearing impairments; To devise interventions to assist in the socialization of children with hearing impairments.

Findings of the study revealed that factors that affect communication of children with hearing impairments include; inability to acquire vocabulary used in conversation, low sense of self-esteem, difficulties adjusting to a classroom where the language and environment differ from that of their home environment, fast rate of discussion, rapid turn-taking, frequent changes of topic, inclusion of many speakers in discussions among others.

As regards to lack of socialization and how it affects academic performance of children with hearing impairments, the study has shown that the classroom environment did not support classroom communication and that lack of socialization affects the academic performance of learners with hearing impairments. Children who had difficulties in socialization also faced challenges academically.

## CHAPTER FIVE

### DISCUSSION OF RESEARCH FINDINGS

#### **5.0 Introduction**

This chapter discusses the findings of the study whose aim was to establish the effects hearing impairments had on classroom learning in selected Special Schools and Hearing Impaired Special Units of Lusaka's Basic Schools. All findings presented were discussed in line with research questions and objectives of the study. The findings in this chapter have been discussed in the same sequence they are presented in the preceding chapter based on the objectives of the study.

#### **5.1 Teachers' views on common factors affecting classroom learning of children with hearing impairments**

This objective sought to determine factors that affected the socialization of children with hearing impairments. The views of participants in the study are discussed under the common themes.

##### **5.1.1 Formation of friendship**

The findings revealed that pupils with hearing impairments did not easily form friendship. Most teachers 12 who participated in the study disagreed that pupils with hearing impairments did not easily form friendship at school, although 8 still felt that children with hearing impairments could still form friendship. The study revealed that the responses from teachers were not in line with those of the pupils and parents to children with hearing impairments. For instance one pupil observed that;

*“At first it was difficult to form friends because it was not easy to communicate with other pupils. But it is easy to make friendship especially with people that already know you and know where you are coming from, (12 year old grade 6 boy)”*

This statement the child is also supported by a parent who observed that;

*“My child interacts easily with deaf peers but he also has hearing peers whom he plays with within the compound”*

The results from the focus group discussion with pupils indicated that the only friends they had were those from the same compound or those from the same classroom and not any other pupils from other classes. The findings from this study are consistent with studies by Wauters and Knoors (2007) who found that, deaf children did not have as many close friendships with hearing peers and that these relationships were more sporadic. The study further indicated that deaf children were also more likely to have a complete lack of friends in their mainstream class than their hearing peers. This purely coincides with the findings of this study where teachers indicated that pupils with hearing impairments did not easily form friendships. However, like Powers (2002) observes, friendship building is a developmental goal for children and contributes to later adjustment and life satisfaction. Therefore, peer friendships could provide deaf children with opportunities to develop specific social, emotional, and cognitive skills, alongside increasing their overall well-being and self-confidence. However, rejection by peers or the absence of friendships could lead to increased psychosocial and educational difficulties for deaf children, over and above the challenges they already face. But as indicated by the findings from the study, the absence of friendships that pupils with hearing impairments face leads to increased difficulties at school.

### **5.1.2 Views on how language development may affect formation of friendship**

The study revealed that lack of oral language development affects formation of friendship. This was echoed by teachers involved in the study, 16 who agreed that language development affects formation of friendship. It was also confirmed by pupils who participated in the study when they indicated that it was not easy to communicate with other pupils. From these findings, we can see that language development plays an important role in socialization. These findings are in line with those of Kail and Cavanaugh (2004) who states that the foundation of socialization is language, which is built upon by familiar and peer socialization. Therefore, communication or the lack thereof, plays a big part in how socially mature deaf children will be at their respective rites of passage. From this study we can see that social development during early childhood, adolescence and later post adolescence years are all unlocked through language and interaction. As the findings from this study indicate, poor language development in children with hearing impairments consequently leads to problems in socialization among children with hearing impairment within the school setting. It is equally important to observe here that, core social skills and strategies that are developed during early childhood lay the tapestry for intellectual and moral development. For this

reason, peer interactions which forms the basis for friendship strengthens this foundation of social skills and the higher levels of social and moral reasoning are achieved through constant use of these basic social skills in social situations. However, as observed by Spencer, Erting, and Marschark (2000) deaf children have factors working against them, including psychological and social stigma that interfere with nominal social development and often negatively affect post-childhood development.

### **5.1.3 How fast rate discussion may affect socialization of children with hearing impairments**

The study showed that the rate at which pupils with hearing impairments were involved in discussions affected how they socialized. Most teachers involved in the study, 16 affirmed that fast rate discussion (which is the speed of the discussion) affects the interaction of children with hearing impairments. This simply means that when children with hearing impairments are interacting in school and someone is speaking very fast, it affects how they engage in a conversation as it becomes difficult to identify and follow visual cues. This study is consistent with that of Stinson and Antia (1999) who states that barriers to classroom participation for deaf children include: fast rate of discussion; rapid turn-taking; frequent changes of topic; inclusion of many speakers in discussions; and instances where several students speak concurrently leading to unmanageable levels of noise. This implies therefore that, if children with hearing impairments are to benefit from any social interaction, the conversation must be as natural as possible with speakers speaking at the slow pace.

### **5.1.4 Lack of skills in sign language by peers may contribute to communication barriers**

Lack of skills in sign language by peers was found to contribute greatly to communication barriers experienced by children with hearing impairments. Teachers as well as pupils in the study all agreed that sign language plays an important role in the communication of children with hearing impairments. The findings in this study agrees with those of Powers (2002) who states that because most hearing people cannot sign, this frequently leads to the emergence of a 'shared handicap of communication' between deaf and hearing partners, thus causing both to be unsure and ineffective at communicating with each other. This therefore means that, lack of skills in sign language by the hearing peers has greatly contributed to poor socialization experienced by children with hearing impairment.

## **5.2 Views on socialization and how it may affect academic performance of children with hearing impairments.**

### **5.2.1 Teachers' views on whether pupils with difficulties in oral language perform academically at the same pace with those without difficulties.**

With regard to difficulties in oral language and academic performance, majority of the teachers 16 agreed that pupils with difficulties in oral language do not perform at the pace as those without difficulties. This finding clearly indicates that language development is a predictor of academic performance. The results of this study are consistent with those of Stinson and Whitmire (2000) who indicate that oral language and reading have much in common. They further state that if the printed words can be efficiently recognized, comprehension of connected text depends heavily on the reader's oral language abilities, particularly with regard to understanding the meanings of words that have been identified and the syntactic and semantic relationships among them. This basically means that language development contributes positively to cognitive development of an individual. As the findings of this study indicate, children with hearing impairments have problems with language development; this adversely affects their academic performance.

### **5.2.2 Views on whether lack of socialisation in children with hearing impairments affects their academic performance.**

The study findings indicate that lack of socialisation affects academic performance of children with hearing impairments. Majority of teachers 18 involved in the study agreed that socialisation plays an important role in academic performance. These findings also agree with those of the parents who were involved in the study who indicated that;

*“If a person has difficulties interacting with others it becomes difficult for him/her to learn from others. This simply means that such a person will not share ideas with friends and this affects how a person performs academically”*

It is clear that the findings agree with those of Remmel and Peters (2009); Stinson and Antia (1999) and Higgins (1980) who indicate that the difficulties that deaf children typically experience in socialization with hearing peers may be attributed to limited production of intelligible speech and speech comprehension and this results in inadequate understanding of how others think and feel and to delays in metacognitive processes, such as problem solving and attention. They further add that deaf children's cognitive difficulties can affect the type

and duration of typically developing play behaviour. Therefore, it is apparent from the study that lack of socialization affects academic performance of children with hearing impairments. Oral language (speech) associates greatly with reading and writing which plays an important role in academic achievement.

### **5.2.3 Views on whether lack of socialization affects self-esteem of children with hearing impairments**

The findings on whether lack of socialization affects self-esteem of children with hearing impairments revealed that lack of socialization leads to low self-esteem. Majority of the teachers 18 who participated in the study agreed that lack of socialization affected the self-esteem of children with hearing impairments. These findings are supported by the findings of Marschark, (1997) who agrees that having close positive peer relationships is associated with increased self-esteem, emotion regulation, successful adjustment to school transitions, and positive attitudes toward school. They however, indicate that peer rejection is related to the reverse and that isolated children display more internalizing problems, such as depression, anxiety, and low self-concept while concurrently disliking school and performing more poorly academically. Since it has been established through this study that lack of socialization affects self-esteem, and that this leads to peer rejection, it clearly explains why children with hearing impairments tend to develop temper tantrums as a result of failure to put their views across to others. The study revealed that failure to socialize greatly impacts on the well-being of children with hearing impairments.

### **5.2.4 Views on whether lack of oral language affects academic performance of children with hearing impairments**

Going by the response from teachers on whether lack of oral language affects academic performance of children with hearing impairments, it was clear that lack of oral language affects academic performance. Majority of the teachers 18 indicated that oral language deficits affect academic performance. The findings from this study agrees with that of Higgins, (1980) who emphasized the importance of children's social well-being on academic achievement, stating that "the best predictor of academic success in a mainstream program for hard of hearing and deaf students is their acceptance by hearing peers" (p. 90). Therefore the issue of social interactions and relationships between deaf children and hearing peers is clearly an important and growing area of concern. However, deaf children's social

experiences in mainstream schools can vary widely (Stinson and Antia (1999) and thus not all deaf children experience rejection and poor-quality friendships with hearing peers. The reasons behind this are unclear and need to be explored to best support all deaf children. Despite this however, the study has clearly showed that lack of oral language which is key in socialization affects academic performance of children with hearing impairments.

### **5.3 Views on interventions that should be put in place to assist in the socialization of children with hearing impairments.**

#### **5.3.1 Views on whether parent-child relationships strengthen socialization of children with hearing impairments.**

The findings from the study revealed that parent-child relationship strengthens socialization of children with hearing impairments. The study revealed that 19 of the teachers indicated that parent-child relationship plays an important role in strengthening socialization of children with hearing impairments. The findings in this study agrees with those of Weisel and Kamara (2005) and Higgins (1980) who states that parent-child interactions are more frequent and more positive as well as being generally more supportive of language development. They further indicate that any language advantages seen in deaf children of deaf parents therefore are more likely due to the fact that a rich language learning-environment has been established rather than anything inherent of sign language itself. The findings in this study are also generally consistent with this suggestion. In his study Higgins (1980) observed that hearing mothers who demonstrated extra flexibility and motivation to compensate for their deaf children's communication needs were most effective in supporting language learning. He further suggests that mothers who do not get discouraged and withdrawn from interactions when the children's language development is slow may contribute to a child's long-term success. This study therefore agrees with the findings of Higgins when it indicates that parent-child relationships strengthen socialization of children with hearing impairments.

#### **5.3.2 Views on whether pupils with hearing impairments benefit from linguistic interaction**

The study revealed that pupils with hearing impairments benefit from linguistic interaction. Majority of the teachers 16 who were involved in the study totally agreed to the statement

that pupils with hearing impairments benefit from linguistic interaction. The findings in this study are in line with that of Marschark (2000) who explains that deaf children who are most competent socially tend to be those who actively participate in linguistic interactions with their parents from an early age. He further adds that good parent–child interaction allows deaf children to gain social knowledge, cognitive and problem-solving strategies, information about self and others, and a sense of being part of the environment. The study by Marschark (2000) confirmed what most of the participants in the study indicated that pupils with hearing impairments benefits from linguistic interaction.

However this was received with mixed feelings from pupils as observed from a response from two pupils who indicated that:

*“I don’t know, but if the teacher is speaking and then I can read from her lips, then I can benefit from the teacher speaking. (14 year old girl)”*

*“For me, I don’t benefit from my teacher because it is difficult to see what the teacher is saying. He is always speaking very fast and this makes it difficult for me to follow. With sign language yes, (16 years old boy)”*

### **5.3.3 Views on whether children with hearing impairments should be encouraged to interact with their hearing peers.**

The findings from the study showed that there is need for children with hearing impairments to interact with their hearing peers. Most of the participants in the study; teachers 17 and pupils agreed that interaction between children with hearing impairments and their hearing peers must be encouraged. What this study has brought out is in conformity with the study done by Mayer (2008), who states that establishment of positive peer relations is crucial for children’s global socio-emotional development, advancing emotional regulation and expression, while simultaneously fostering communication skills and aspects of cognitive development, such as perspective taking. This simply means that through peers interaction children are able to share certain information and ideas and this may lead to acquisition on of knew knowledge. The idea of interaction was also supported by most parents involved in the study, who indicated that, ‘if a person is not socializing, then it becomes difficult for him/her to learn from others’. This has also been acknowledged by Leybaert (2005), who conducted a

research in reading of children with hearing impairments. In his study, he found out that when parent of children with hearing impairments were interviewed, they reported that hearing peers who invested more effort, patience, and time with their deaf child were more likely to have positive peer relationships and that the more time deaf children and hearing peers spend together, the better their peer relationships.

#### **5.4 Summary**

The study has established that several factors affects classroom learning of children with hearing impairments. Among the factors highlighted include lack of formation of friendship, delay in language development and the speed at which the teacher is speaking. It has equally been established that pupils with language difficulties do not learn at the same pace as those without difficulties. This being the case, it simply means that pupils with hearing impairments do not learn at the pace as those with hearing impairments.

Lack of socialization by children with hearing impairments has also come out strongly as one factor that affects classroom learning of learners with hearing impairments. The study has shown that lack of socialization leads to low self-esteem and consequently affects academic achievement which comes has a result of lack of sharing of knowledge.

It is clearly shown through the study that interaction between pupils with hearing impairments and those with hearing impairments in cardinal if learners with hearing impairments are to benefit fully during classroom learning. For this reason, teachers and parents play a critical in promoting this interaction which has been seen to be very vital in the learning of learners with hearing impairments.

## **CHAPTER 6**

### **SUMMARY OF FINDINGS, CONCLUSION AND RECOMMENDATIONS**

#### **6.0. INTRODUCTION**

This chapter is divided into three sections namely; Summary of major findings; Conclusion and Recommendations for the improvement of socialisation of children with hearing impairments.

#### **6.1 SUMMARY OF FINDINGS**

This study was aimed at finding out the effect of hearing impairments and its implications on classroom learning. The summary of the most significant findings is presented below.

- a. The study found that pupils with hearing impairments did not easily form friendships. Since interpersonal relationship is related to development of social skills, this implies that children with hearing impairments equally had problems with socialization. The study also revealed that lack of social skills in children with hearing impairments contributed to social isolation that these individuals experience and this consequently led to increased psychosocial and educational difficulties.
- b. Results also confirmed that lack of oral language development affected formation of friendship. Since children with hearing impairments have difficulties with oral language development and that the foundation of socialization is language which is built upon interaction with peers, it clearly shows that these children were likely to have problems with socialization. The study found that children with hearing impairments experience difficulties with socialisation especially with their hearing peers because of lack of oral language development.
- c. Another important conclusion drawn from this study is that pupils with difficulties in oral language development did not perform academically at the same pace as those without difficulties. Since language development is a predictor of academic performance, this simply means that individuals with difficulties in language development might also have difficulties in academic performance. This study revealed that pupils with hearing impairments had difficulties in language development, therefore this accounts for their failure to perform academically at the same pace as those without language difficulties.
- d. Children with hearing impairments had communication problems and they seemed to be stigmatised by the hearing children. As a result they suffered from stigmatisation, rejection and name calling especially from the hearing children during play. This often makes the hearing impaired learners lose their self-esteem and feel worthless.

Poor interaction between hearing children and those with hearing impairments makes hearing impaired learners not improve in self-esteem because they lack the social interaction which is a vital ingredient for learning.

- e. The study revealed that parent-child relationship strengthens socialization. It was seen in this study that a rich language environment played an important role in the socialization of children with hearing impairments. Children who were exposed by their parents to early language stimulation and those who reported to have hearing peers were reported to have well developed social skills. This study also highlighted the importance of linguistic interaction between the hearing impaired and those without hearing impairments. It was observed that children with hearing impairments who participated in linguistic interactions gained social knowledge as well as problem-solving skills which are important in cognitive development.

## **6.2 Conclusion**

The study has established that children with hearing impairments experience problems in social skills. Through this study several factors that impede children with hearing impairment from acquiring social skills have been established.

Lack of oral language development has strongly come out as one of the factors that hinder children with hearing impairments from acquiring social skills. It has been established in this study that language development is key in unlocking social skills, and this implies that poor language development in children with hearing impairments consequently leads to poor socialisation.

Peer relations have also been found to be one of the factors that contribute to socialisation. Children who easily interact with others have well developed social skills and this enables them to express or put their points of view across during conversations. However, for children with hearing impairments, this is not always the case as they have to struggle to make sure that their points of view are understood. Failure by the hearing impaired to put across their points of views leads to acts of frustration, emotional problems and also isolation. The study has also established that children with hearing impairments perform academically below their hearing counterparts. One contributing factor to this is lack of social skills that would enable them interact with their hearing peers. Lack of interaction with the hearing

peers denies children with hearing impairments to learn from each other. Since children with hearing impairments are confined in their own world, this creates a lot of problems in acquiring academic concepts that may mostly be taught through verbal means. Therefore, socialisation plays an important role in educational attainment of individuals and in this case children with hearing impairments are not exceptional.

### **6.3 Recommendation**

Based on the findings of this study, the following recommendations have been made to the government and other organizations concerned with the welfare of children with hearing impairments.

#### **6.3.1 Recommendations to Ministry of education**

- The Government of the Republic of Zambia through the Ministry of Education, Science, Vocational Training and Early Education should design social programs that should incorporate both hearing children and those with hearing impairments. In this case drama activities and role plays depicting interaction of both the hearing and the hearing impaired should be encouraged.
- The MoESVTEE should promote more schools that encourage integration between the hearing impaired and the non-hearing impaired children. Integration is important in that pupils are able to learn from one another. This makes the deaf feel accepted in society.
- There is need for the MoESVTEE to introduce early childhood education to hearing impaired learners. This would enable these children to learn social skill early in life and this will help them to transcend without difficulties in later school life. The challenges faced by children with hearing impairments in social skills come as a result of not being exposed earlier in life to the speech world. Therefore, once these children are exposed to education early in life, issues of stigma will be minimised as the children would have learnt early in life on how to cope up with such pressures.
- There has to be a strong link between the school administration, teachers and parents on how best learners with hearing impairments can be assisted in the school set up. Parents will be key stakeholder as they would help to provide relevant information that will act as a foundation for learning which teachers can easily rely upon.

- There is need for teachers to be involved in community based action groups so that they help to sensitize members of the community on the importance of education of children with hearing impairments.

#### **6.4 Suggestion for Further Research**

The research focused on finding out the implications of hearing impairments in classroom learning among learners with hearing impairments. The study only focused on children in the upper primary section (Grades 5-7) and the findings may not be generalised to other grade levels. For this reason, the following studies are suggested for the future.

1. There is need for further research targeted at all grade levels to establish the implications of hearing impairments in classroom learning.
2. The comparative study between the learners with hearing impairments and the hearing pupils in mathematics and science performances
3. Oral language deficit and its effects on classroom learning: a comparative study between learning with hearing impairments and the hearing learners.

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THE UNIVERSITY OF ZAMBIA

SCHOOL OF EDUCATION

DEPARTMENT OF EDUCATIONAL PSYCHOLOGY SOCIOLOGY AND SPECIAL  
EDUCATION

Questionnaire for Specialist teachers

Dear respondent,

I am a Masters student doing Sociology of Education at the University of Zambia in the School of Education carrying out a research on effects of oral language deficit on the socialization of children with hearing impairments. The information that will be collected is purely for research purpose only and will be used as such. Please kindly spare a few minutes to answer this questionnaire as sincerely as you can.

**Instructions:**

- Do not write your name on this questionnaire.
- Respond to all questions by **ticking (√) the choice of your response and where necessary give a brief explanation.**
- You are free to participate in the study or decline.
- 

**Gender**

Female [ ]      Male [ ]

Age of Respondent

- A. Below 30 Years [ ]
- B. 31-35 Years [ ]
- C. 36-40 Years [ ]
- D. Above 40 Years [ ]

School: \_\_\_\_\_

**A. Questions on factors that may affect communication of pupils with hearing impairments during classroom learning**

1. Pupils with hearing impairments easily form friendship with hearing children.  
Strongly agree [ ]  
Agree [ ]  
Neither agree nor disagree [ ]  
Disagree [ ]  
Strongly disagree [ ]
  
2. Lack of language development affect formation of friendship.  
Strongly agree [ ]  
Agree [ ]  
Neither agree nor disagree [ ]  
Disagree [ ]  
Strongly disagree [ ]
  
3. How do you relate language development to formation of friendship?  
Very good [ ]  
Good [ ]  
Poor [ ]  
Don't Know [ ]
  
4. Fast rate discussions may affect socialization of children with hearing impairments.  
Strongly agree [ ]  
Agree [ ]  
Neither agree nor disagree [ ]  
Disagree [ ]  
Strongly disagree [ ]
  
5. Lack of skills in sign language by their hearing peers may contribute to poor socialization of children with hearing impairments.  
Strongly agree [ ]  
Agree [ ]  
Neither agree nor disagree [ ]  
Disagree [ ]  
Strongly disagree [ ]

6. Prelingually deaf children develop social skills earlier than post linguually deaf children of the same age.

Strongly agree [ ]

Agree [ ]

Neither agree nor disagree [ ]

Disagree [ ]

Strongly disagree [ ]

**B. Questions on how socialization failure may or may not affect academic performance of hearing impaired children**

7. Pupils who have difficulties in with language development do not perform academically at the same pace as those with well-developed language.

Strongly agree [ ]

Agree [ ]

Neither agree nor disagree [ ]

Disagree [ ]

Strongly disagree [ ]

8. Lack of socialization in children with hearing impairments may affect their academic performance.

Strongly agree [ ]

Agree [ ]

Neither agree nor disagree [ ]

Disagree [ ]

Strongly disagree [ ]

9. Lack of socialization affects self-esteem in pupils with hearing impairments.

Strongly agree [ ]

Agree [ ]

Neither agree nor disagree [ ]

Disagree [ ]

Strongly disagree [ ]

10. Lack of language development affect academic self-concept and academic maturation

Strongly agree [ ]

Agree [ ]

Neither agree nor disagree [ ]

Disagree [ ]

Strongly disagree [ ]

11. Children with hearing impairments who benefit from spoken language perform better than those who entirely depend on sign language.

Strongly agree [ ]

Agree [ ]

Neither agree nor disagree [ ]

Disagree [ ]

Strongly disagree [ ]

12. Spoken English is a predictor to acquisition of English reading skills.

Strongly agree [ ]

Agree [ ]

Neither agree nor disagree [ ]

Disagree [ ]

Strongly disagree [ ]

13. Lack of reading skills affects academic performance of children with hearing impairments at school.

Strongly agree [ ]

Agree [ ]

Neither agree nor disagree [ ]

Disagree [ ]

Strongly disagree [ ]

14. Lack of language development affects academic performance of learners with hearing impairments?

Strongly agree [ ]

Agree [ ]

Neither agree nor disagree [ ]

Disagree [ ]

Strongly disagree [ ]

15. Prelingually deaf children perform better academically in school than post linguually deaf children.

Strongly agree [ ]

Agree [ ]

Neither agree nor disagree [ ]

Disagree [ ]

Strongly disagree [ ]

**C. Questions on interventions that should be put in place to assist in the socialization of children with hearing impairments**

16. Parent-child relationship strengthens socialization of children with hearing impairments.

Strongly agree [ ]

Agree [ ]

Neither agree nor disagree [ ]

Disagree [ ]

Strongly disagree [ ]

17. Justify your response in 25 above.

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18. Pupils with hearing impairments may benefit from linguistic interaction?

Strongly agree [ ]

Agree [ ]

Neither agree nor disagree [ ]

Disagree [ ]

Strongly disagree [ ]

19. In your opinion what do you think is the best method of teaching pupils with hearing impairments, please explain.

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20. Teachers of children with hearing impairments should encourage their learners to use speech during the teaching and learning process.

Strongly agree [ ]

Agree [ ]

Neither agree nor disagree [ ]

Disagree [ ]

Strongly disagree [ ]

21. Children with hearing impairments should be encouraged to interact with their hearing peers.

Strongly agree [  ]

Agree [  ]

Neither agree nor disagree [  ]

Disagree [  ]

Strongly disagree [  ]

22. Interaction between hearing children and their hearing impaired colleagues may promote academic performance of hearing impaired learners.

Strongly agree [  ]

Agree [  ]

Neither agree nor disagree [  ]

Disagree [  ]

Strongly disagree [  ]

**THANK YOU FOR YOUR PARTICIPATION!**

**A guide for Focus Group Discussion for pupils**

**A. Questions on factors that may affect communication of pupils with hearing impairments during classroom learning.**

1. Do you have friends at school?
2. Is it been easy or difficult for you to make new friends?
3. Are all your friends hearing impaired?
4. Do you think lack of oral language affects your formation of friendship within the school?

**B. Questions on weather lack of socialization affects academic performance**

5. How does lack of oral language development affect your academic performance?
6. Do you find it easy to learn in the same environment with hearing children?
7. In your opinion do you feel you have been easily accepted by these hearing children?
8. Does your teacher communicate with you using sign language or speech?

**C. Questions on intervention measures**

9. How do you think you will benefit through the use of speech by your teachers in class?
10. Do you think you will benefit academically by interacting with hearing peers?
11. Do you get any assistance from your parents when working on your homework?

**An interview guide for parents of children with hearing impairments**

**Personal Bio data**

**Gender:** \_\_\_\_\_

**Area of residence:** \_\_\_\_\_

**Number of Children** \_\_\_\_\_

**Occupation:** \_\_\_\_\_

**Relationship with the child:** \_\_\_\_\_

1. For how long have you lived with this child?
2. Do you feel your child feels discriminated because of his condition?
3. Has it been easy for your child to form friendship?
4. Do you select the kinds of friends that your child should have?
5. What sort of friends has your child got; hearing or hearing impaired?
6. Do you think your child's friends are of any assistance to your child in school work?  
Briefly explain.
7. What mode of communication do use with your child and why?
8. Do you at times have challenges communicating with your child? Kindly explain.
9. How has limited speech development affected academic performance of your child if any?
10. Do you feel at times that lack of language development may affect the academic performance of your child? Briefly explain.
11. In your opinion does lack of language development affect socialization of your child?
12. How do help your child with school work?
13. How best do you want your child to be socialized?

