A COMPARATIVE STUDY OF GRADE THREE HEARING IMPAIRED PRE- SCHOLARS AND NON PRE- SCHOLARS IN READING SKILLS: THE CASE OF LUSAKA BOYS AND GIRLS BASIC SCHOOLS.

BY

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AUTHOR'S DECLARATION

I, Grace Mulenga, do hereby solemnly declare that this dissertation represents my own work and that it has never been previously submitted for a degree at this university.

Signed.....Mulenga.....

Date...22ND September, 2006

DEDICATION

To my family for their earnest support and inspiration in my studies and to my dad William Mulenga and mum Bessy Chola Mulenga who always wanted the best education for me. I will always treasure your support.

APPROVAL

This dissertation by Grace Mulenga is approved as a partial fulfilment of the requirements for the award of the Master of Education (Special Education) degree of the University of Zambia.

Signed.....Date.....22/09/06.....

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ABSTRACT

The purpose of the study was to investigate the difference in reading Performance between the grade three hearing impaired pre- scholars and non Pre- scholars, in 2 selected basic schools of Lusaka Urban. Quantitative and qualitative methods were used. A sample of 20 hearing impaired children were selected and since this was the only number available in the two schools they were all selected.

For data collection, the Basic Skill Assessment Tool (BASAT) was used to test the children. For the teachers, the Senior Education Standards Officers (SESOs) and the District Education Standards Officers (DESOs), semi structured interviews were used.

The data collected using the BASAT, were analysed using the Statistical Package for Social Sciences (SPSS), while data from interviews were analysed qualitatively by grouping similar themes together using comparative techniques. After the analyses of data, tables of frequencies and percentages were used in the examination and presentation of data.

The study revealed that, there was a difference in performance between the hearing children who had been to pre- school and those who have not. The study also revealed that, most children started grade one without being to

pre- school, no communication in terms of acceptable sign language used in school. The study also revealed that, those who have not been to pre- school, started grade one at a very late age of 9 to 10 years old.

The study also revealed that, there were no pre- school classes existing in the two basic schools. The policy makers also acknowledged that, there was a lot that needed to be done as far as special education for hearing impaired is concerned.

Findings of this study explain why early intervention is necessary in the deaf child or hearing impaired child. They explain the importance of the early years and the kinds of early educational experiences that children with hearing impairment require.

Basing on the findings of the study, the following recommendations were made to the Ministry of Education, the policy makers, the curriculum planners, head teachers, teachers and parents in an effort to improve the educational provision of the hearing impaired children in the country.

a) The Ministry of Education should introduce assessment as a requirement before entry into grade one.
b) The Ministry of Education should introduce early childhood education for hearing impaired children.
c) The Ministry of Education should provide counseling services for

parents with young hearing impaired children on the need for their children to begin school early.

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CHAPTER ONE: INTRODUCTION

In today's information rich world, academic success remains strongly dependent upon a learner's ability to acquire competence in reading and to apply that competence in the development of understanding in other domains of knowledge (Austin and Morris, 1963). Reading is undoubtedly the most important academic skill and is considered to be a foundational skill for all school based learning. A child's success throughout formal education largely depends on the ability to read (Haskell, 1993). All other subjects are dependent upon the ability to extract meaning from written symbols. The child who has reading difficulties invariably manifests correlative problems in other disciplines as well, for example in mathematics and science.

In recent years, interest has increasingly come to be focused on the educational needs of young children prior to their entry into formal schooling. The Warnock Report (1978), for example, in reviewing the whole area of special educational treatment, considered the provision of education in the early years to be one of its three main recommendations. The reason for this interest lies in the importance of the early years for future development. Any loss of experience that may result from handicapping condition is compounded, as children grow older. While it may be possible to make good at a later date, some of the adverse features of a disability in the early years, very often patterns of behaviour and expectation, established in the young child, persist (Gallagher, 1988).

Children with special learning needs are particularly vulnerable in the early years.

Some of their development maybe delayed, for example mobility or speech, and their difficulties may lead parents to curtail their experiences rather than extend them (Stephen, et al. 1984). Development is uneven and sometimes undue concentration on the child's difficulties may lead to a neglect of other areas of development where there may be the potential to approximate normal development. Yet, little by way of constructive help is offered in the very early years to parents of children with special learning needs (Walter, 1980).

Learning to read must normally be preceded by a background of meaningful articulate and clear use of language, at home and in school (Lucas, 1990). Deaf children however, taught from an early age by special techniques from highly skilled and dedicated teachers, can achieve high standards of reading in addition to written work (Spodek and Walberg, 1977). Therefore, skilled help at an early age is essential for children if later progress in reading is to be achieved.

Although there is great diversity in terms of style and approach among educators of the deaf, there is universal agreement among them on the importance of beginning early (Gallagher, 1986). Most educators of the deaf and hard of hearing recommend a regular, professionally directed training programme as early in the child's life as possible.

1.1 Statement of the Problem

Early childhood education is very beneficial for the development of the child and useful as a preparatory stage for entry in basic school. At present, only a small minority of Zambia's children are able to profit from education at this level (MoE, 1977). The majority of these pre- schools are privately owned and operated.

Unfortunately, these pre- schools only cater for the ordinary children. The only pre- school available in Lusaka is the one at the University Teaching Hospital at the Hearing and Speech Centre which can only cater for few children due to limited space. This leaves most of the children with hearing impairment without experiencing this important phase of development, depriving them of the initial education, which would help them to build up children's "cultural capital" and to compensate for disadvantages that they might bring from homes where reading, writing or other education related materials are not found. The study therefore, aimed at establishing at what extent hearing impaired pre- scholars would do better than non pre- scholars.

1.2 Objectives of the Study

1.2.1 General Objectives

The aim of the study was to compare the performance of hearing impaired pre-scholars and non pre- scholars in reading skills in grade three.

1.2.2 Specific Objectives

The following were the specific objectives of the study:

1. To examine and compare the levels of achievement in reading performance of the hearing impaired pre- scholars and non pre-scholars.
2. To establish the differences in the general performance between those who have been to pre- school and those who have not.
3. To establish the importance of early childhood education for the hearing impaired children.
4. To establish the government's position on the establishment of pre-schools for the hearing impaired children in Basic Schools.

1. 3 Research Questions for the Study

The study was guided by the following questions:

1. What is the performance level like for children who have passed through pre- school and those who have not?
2. What is the government's policy on the establishment of pre - schools in Basic Schools?
3. What is the difference in reading between those who have been to Pre- school, and those who have not?
4. Is early childhood education important for children with hearing impairment?

1.4 Significance of the Study

It was hoped that the study would offer vital information concerning the importance of the early years and why all children with hearing impairment need to pass through pre- school education. It was also hoped that the study findings might be a reservoir of information that would assist in developing new strategies in the teaching of the children with hearing impairment, in their early years.

Findings from the study might also assist in identifying children at risk at an early age. Further more, the study would benefit the parents, as parents are considered the first teachers and the home the first classroom, to see the need of pre- school education for the hearing impaired children. It was hoped that if the recommendations are implemented, they would assist the curriculum planners in coming up with a curriculum that would benefit the children with hearing impairment.

The findings from the study might be used by the policy makers to enact a policy that would see the establishment of pre- schools in the basic school units and special schools for the hearing impaired.

1.5 Definition of Key Terms in the Study

The following were the terms used in this study:

Alphabetic principal: Ability to realize that phonemes are the elements of spoken words that the letters of the alphabet usually represent.

Auditory perception: The ability to discern and interpret the meaning from sounds.

Babbling: Long strings of sounds that children begin to produce at four months of age.

Competence: According to Robert White, children's increased skill and capability in successfully exploring, mastering and controlling the world around them.

Comprehension: The ability to decipher meaning from written text.

Communication: Process of encoding, transmitting, and decoding signals in order to exchange information and ideas between the participants.

Conductive hearing loss: Hearing loss caused by interference with the transmission of sounds from the outer ear.

Deafness: Unable to hear at all or to hear well.

Early childhood: the early years of children's development.

Fluency: The quality or condition of being fluent.

Handicap: Subjective or environmental limitation associated with disability.

Hearing loss: Inability to perceive sounds.

Hearing impairment: This is when one's hearing is affected such that the loudness or intensity at which a person hears speech, is affected.

Language impairment: It is the effect on the increase or growth of complex and dynamic system of conventional symbols that are used in various modes for thought and communication.

Phonemes: smallest units into which speech can be divided.

Phonological awareness: An understanding that spoken words and syllables are themselves made up of sequences of elementary speech sounds.

Pre- school: Time or age before a child is old enough to go to school.

Reading: The ability to obtain meaning from print.

Receptive language: Relates to the receiving and understanding of information, for example word recognition, auditory discrimination.

Sign language: Is the use of symbols and gestures by the deaf person for communication, in place of speech.

Special Education: A subsystem of the total educational system for the provision of specialized or adapted programmes and services or for assisting others to provide such services for exceptional youth and children.

CHAPTER TWO: LITERATURE REVIEW

2.0 Introduction

The chapter is divided into the following sub headings; global perspective, Zambian perspective, significance of the early years, auditory perception, language and cognitive function, educational factors, communication, sign language and attitudes of parents.

2.1 Global Perspective

Globally, in recent years, interest has increasingly come to be focused on the educational needs of young children prior to their entry into formal schooling. The reason for this interest lies in the importance of the early years for future development. Any loss of experience, which may result from a handicapping condition is compounded as children grow older (Chazan and Morris, 1985).

Researchers have clearly established the importance of early intervention to promote language acquisition of deaf children. The pattern of child development clearly shows that the early years, especially pre-school years, are the most important ones for language development (Spodek, 1977).

Language development has its impact on other areas of child development such as sensory motor and cognitive development. Children with hearing impairment due to their inability to respond to the oral signals of their parents and others, invariably are moved into a "state of silence" when others do not speak or interact with them.

Language and reading go together. A child needs to learn a language and

know how to read it. In rural locations of India, early childhood education commences only at around six (6) years of age. By the time children with hearing problems are identified, the crucial period for language development is already lost (Stephen and Quigley, 1984).

No comprehensive description and analysis of the relationship between hearing loss and reading ability has been published in Britain. Traditionally, the education establishment has protested that every teacher already knows that deaf children are very backward at reading, and by implication, such research is unnecessary (Conrad, 1979). However, Morris, (2001) believes that it becomes more useful if reading performance can be related not only to that of other children of the same age but also of the same level of hearing loss.

Furth (1966b) was concerned at the relatively poor reading performance demonstrated by hearing-impaired children from 73 schools throughout USA and Canada. The results of this study showed that for age 15 ½ - 16 ½ years, the respective mean and median grades were 3.5 and 3.4, equivalent to a reading age of about 9 ½ years.

Jensema (1975) in his study of hearing impaired children in Australia, considered the effect of hearing loss on reading performance comprehension. She says although normative data in the form of reading age or reading grade according to hearing loss cannot be provided, the relationship itself is clear. She observed a marked decline in reading ability as deafness decreases, and the hearing loss affects reading and so too does causes of deafness.

1.2.2

Zambian Perspective

At the Zambian level, the consensus of expert opinion is that ten to fifteen percent of children are exceptional and require active intervention and specialized services. This means that in Zambia, there were 160,000 to 250,000 children of primary school age in 1995 with special educational needs arising from physical and mental causes (MoE, 1996).

Studies in the area of early childhood education have been concentrated on the ordinary children. The research that was done by Malumbe, (2002) although un published tried to compare the performance of ordinary children who had been to pre-school, and those who had not. Her findings were that, children who had been to pre-school, performed better than their counter parts that had not. This supports the idea of the need for early childhood education and the need to begin school early.

In addition, there have been many other studies done in the area of reading difficulties amongst the ordinary primary school going children in Zambia. For instance the concern about literacy levels among primary school pupils in Zambia led to the new national language policy to which initial instruction should begin in a familiar language before the introduction of English in Grade 2 (MoE, 2001).

The Ministry of Education convened a National Reading Forum which led to the development of the Primary Reading Programme, a comprehensive seven years plan of action aimed at improving literacy levels among Zambia's school children. The programme has now been implemented nearly in all schools around the

country. However, the children with special educational needs were not considered in this programme. The author had not come across any studies that addressed the education of hearing impaired children at pre- school level, conducted in Zambia that had been published.

Literature has revealed that, the course of children's development is heavily influenced by the experiences of the early years (Chazan and Laing, 1982). Many authorities attach as much significance of the four or five years before the start of formal schooling as the whole of the rest of childhood and adolescence. For children with special educational needs, skills such as reading, are desperately important and the need to acquire them effectively and early has been widely recognized. Warnock Report (1978) on the education of handicapped children and young people accepted this view of the significance of the early years and argued that the extension of education for the under five should be one of three priorities for action.

It is argued that children who have passed through pre- school have few problems in reading and grasping new concepts compared to their counterparts who have not (Kagan, 1998). These were the findings of Austin and Morris (1983) who concluded that academic success remains strongly dependent upon a learner's ability to acquire competence in reading and to apply that competence in the development of understanding in other domains of knowledge as well.

In recent years, interest has increasingly come to be focused on the educational needs of young children prior to their entry into formal schooling.

The reason for this interest lies in the importance of the early years for future Development as any loss of experience, which may result from a handicapping condition, is compounded as children grow older.

Significance of the Early Years

It would be wrong to suggest that education is something that happens only in formal groups and that the experiences that the child has at home before joining such groups are non-educative. In the first two years of life, the child achieves a rate of learning which is never again reached and more over the learning accomplished then forms the basis of all subsequent learning (Haskell and Barrett, 1993).

Early educational experiences therefore, begin in the home and the quality of That experience is vital. Bloom (1971:31 an American psychologist, has suggested why this should be so, making in particular three points.

1) because change and development are so rapid in the early years, the experiences offered then have considerable impact on the child, much more so than they would have at a period when little alteration or development was taking place in the individual.

2) Experiences are cumulative, in as much as development at any Stage builds on prior development.

3) Young children are seldom out of their home environment. They have therefore, little opportunity to supplement inadequate experiences in the home, with richer experiences elsewhere

Maurice and Laing (1985) pointed out that adverse experiences in the early years could to some extent be overcome in subsequent years, as a human learner is highly flexible. But he was quick to agree with other researchers like

(Koerick,2002), that overcoming of adverse experiences at a later date is difficult for both pupil and teacher.

Children with special educational needs are particularly vulnerable in the very early years. Some of their development may be delayed, for example mobility or speech, and their difficulties may lead parents to curtail their experiences rather than extend them (Spodek, 1973). Development is uneven and sometimes undue concentration on the child's difficulties may lead to a neglect of other areas of development where there may be the potential to approximate to normal development. If educational opportunities of the early years are not seized, the chance may never present itself so easily again (Livingston, 1997).

Auditory Perception

There has been less research in auditory than in visual perception partly because of technical limitations (Haskell and Barrett, 1993). Poor performance auditory discrimination at five years has been found to correlate with subsequent failures in reading. Delays in the acquisition of speech as a consequence of poor auditory perception will also affect reading progress (Conrad, 1979). Linguists believe that normal speech development is essential for the acquisition of reading, and that this is made possible by good auditory perception and memory such that learning to read, must be preceded by a background of meaningful, articulate and clear use of language at home and in school (Mc Cracken, 1991).

At the stage of development when sounds are recognized and discriminated,

sounds are associated with objects and the use of consonants is being gradually developed. So any hearing loss will result in distorted hearing and reproduction of speech. Deafness will produce limited understanding of speech.

The usual findings in studies investigating the relationship between speech sound discrimination and reading ability is that poor reading ability is associated with poor auditory discrimination (Bradley, 1980). Thus deaf or hearing impaired children do experience the problem of auditory discrimination because of their disability. Bradley (1980) further pointed out that, if we are to read or spell, we must use the alphabet, and the alphabetic code works by breaking words down into constituent sounds, that is, units smaller that the syllable.

Children who have had hearing problems in their pre- school years may have difficulty discriminating between sounds even though their hearing may now be perfect. This may be so because they did not learn to distinguish between similar sounds in the usual way when they were at the early developmental language stage (Foorman, Francis and Fletcher, 1997).

Language and Cognitive Function

When a hearing child enters school, perhaps at the age of five, he or she has already behind him a long history of spoken language acquisition and language usage even by the age of six months. Weir (1996) has reported that the babbled utterances have taken on the tonal quality of the

surrounding language. For example he writes to say that, "Chinese babies make detectably different sounds from American babies". This means that, the immensely enriching reinforcement, which comes intrinsically through auditory feedback and extrinsically through the rewards afforded by parents and others in the various expressions of their evident pleasure, stimulates and encourages language development. Mavilya (1971), supports the notion that about this same age, the natural babbling which is a normal stage in a hearing-impaired child's development, begins to "peter" out, the child is then becoming dump.

The development of language facilitates organization of abstract thought. The ability to transfer from one situation to another is also involved in concept formation. Reading is an abstract concept. Many children fail to understand that the spoken word is represented by the one written on the page. They have to discover that the written word has spatially organized groups of letters, which correspond systematically to temporally, ordered sounds. The acquisition of such concept is related to normal cognitive growth (Foorman Francis and Fletcher, 1997).

Related to concept formation is the ability to integrate information arriving in the central nervous system from different sense modalities. In the process of reading, for example, information arriving via the visual field must be related to that arriving from the auditory field. As the child matures, proficiency in integrating information increases. This ability is related to the child's intellectual and maturational level and most rapidly improves between the ages of five and seven when most children are learning to read. A disturbance in

surrounding language. For example he writes to say that, "Chinese babies make detectably different sounds from American babies". This means that, the immensely enriching reinforcement, which comes intrinsically through auditory feedback and extrinsically through the rewards afforded by parents and others in the various expressions of their evident pleasure, stimulates and encourages language development. Mavilya (1971), supports the notion that about this same age, the natural babbling which is a normal stage in a hearing-impaired child's development, begins to "peter" out, the child is then becoming dump.

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motor ability, touch, sight, or hearing will affect a child's ability to integrate the sensory information received from stimuli in the environment (Spodek and Walberg, 1977).

During the pre- school years, from two to five years of age, deaf children who are naturally exposed to signing in the home rapidly increase the frequency with which they use conventional signs to communicate about objects and actions (Marschark and West , 2002). By age three, they are modifying signs them selves, although their early modifications generally do not conform fully to the rules of either American or British sign language, until they are about five years old.

Educational Factors

The Coleman Report of 1977 did provide a strong rationale for compensatory education, enrichment programs that keep students from disadvantaged back ground " catch up" with students that are more privileged. In education, equal opportunity will exist when no children are at a disadvantage in school, simply because they lack the learning experiences outside the classroom that other children enjoy (Haskell, 1993).

Communication

Lack of communication is the greatest barrier that people with hearing impairment experience. However, communication is also possible without a spoken language being involved. It is possible to communicate via a touch, a look, or a gesture to communicate long before they are able to use language (Prabaka,

2002). Hearing impaired children's communication through signs and gestures is present long before communication through a spoken language. In order for a deaf or hearing impaired child to communicate, he or she needs to be taught a language.

By the 1980's, it was widely recognized that hearing children's language acquisition was strongly influenced by their interactions with their mothers or other caregivers (Moores, 2001). The search for solutions to the observed delays in deaf children's language acquisition therefore, focused on comparisons of interactions of hearing mothers with deaf children to interactions of hearing mothers with hearing children. The studies found that hearing mothers interacted with their deaf children much differently from the way they did with their children, and these differences were assumed to be responsible for the observed delays (Meier and Newport,1990).

The findings from the study by Drasgow (1980), were that deaf mothers use significantly less language with deaf children than hearing mothers do with hearing children, but language development in the first two years proceeds at much the same rate (Siple, 1997). Whatever its mode, shared communication greatly enhances language development and permits relaxed and effective parent- child interactions. It also leads to early foundations in language which, in turn, support the acquisition of literacy and cognitive and social skills during the school years (Harrison and Mohay, 1997).

Research has it that , quality parent-child communication may be the single

best predictor of language development, and it is clearly a central factor in later academic success (Hart, and Risley, 1995).

Sign Language

Throughout the world, hearing communities use spoken languages as their primary system of communication, and most have developed writing systems that are based on the spoken language. However, profoundly deaf individuals, especially those who become deaf early in life, do not acquire spoken language through normal immersion, and therefore, have great difficulty in mastering the written language as well. These deaf individuals usually develop or learn sign languages, which are different from the surrounding spoken language in structure as well as vocabulary (Snowling, 2000).

During early childhood, both deaf and hearing infants learn much about things and people in the environment as well as about how to learn and interact with others. Many deaf children exhibit delayed language acquisition however, and the frequency at which we see educational under achievement suggests that delayed language acquisition and educational under achievement both have early roots (Moores, 2001). Hence the need for hearing impaired children to learn sign language in the early years as this becomes the mother tongue by which they will be able to communicate and learn academically and be able to function in the wider society.

Attitudes of Parents

From the literature, it has been discovered that, parents on the other hand, are often reluctant to admit that their child is handicapped and are slow to seek professional help (Kirk, 1988). Because of their hesitancy, even their aversion to recognize the problem apparent to others is not there (Meredith, 2003). Therefore, screening techniques must win the confidence of parents and help them become aware of the services available for their children (Bogdan and Berklen, 2003).

Obviously, screening and identification of eligible children are essential before prescriptive programming is possible. It is relatively easy to identify low incidence handicapped children, or the hearing impaired children at an early age. Doctors, nurses,teachers, parents, even neighbours are able to detect children who deviate so far from the average few (Koerick, 2002). Parents therefore, need first of all to be given considerable information and help, so that in the bewildering early years when the implications of the handicap start to become clear, they can aid their child's development form the very beginning (Webster, 1986). Obviously it is going to be difficult to enable parents to see how they can help if they refuse to accept the child's handicap or disability. If the education opportunities of the early years are not seized, the chances may never present itself so easily again (Wolk and Allen, 1984).

Lucas (1990), in his study done in England on family reactions when the news is broken about the disability of the child said that, there is a temptation in the early years for parents to keep children with hearing impairment isolated

from their peers. He said that, mothers may feel upset or embarrassed to see their handicapped child with non handicapped children, and yet young children do need to become accustomed to being with others. All children have to learn social interaction skills as anyone watching the play of two young children will quickly realize how close they are in their relationship (Conrad, 1979). It may take children with hearing impairment a little longer to accept others or they may need more supervision and help than usual, but again their future response to formal groups will be considerably facilitated by their having become accustomed to other children before the age of three years (Chazan and Laing, 1982).

Therefore, before admitting the hearing impaired children in school or unit for the deaf, a thorough medical examination needs to be carried out including hearing assessment, speech or language evaluation and intelligence quotient (I.Q.) testing. This approach will give emphasis to all aspects of the child's development along with hearing loss. Once the degree of hearing loss is determined, children with mild, moderated or severe hearing loss ought to be provided with suitable amplification devices, for instance hearing aids (Prabaka, Koenig and Tesni, 2002).

From the literature review the researcher deduced that, children with hearing impairment needed the experiences of the early years. These experiences formed the foundation at which later skill development in other areas would be achieved. The early years also assisted to detect disabilities of any kind at an early stage and facilitates the implementation of the intervention strategies in early childhood to alleviate the deterioration of the disability as the child grows

old.

The other point was that hearing impaired children could equally be educated and were capable of learning to read just like the ordinary children. All they needed was proper equipment like hearing aids, acoustically treated rooms, specialist teachers for the hearing impaired, relevant teaching and learning materials, and support from both parents and teachers. Therefore, parents needed a lot of information concerning the education of their hearing impaired children and what they were capable of achieving if only they were provided with the kind of education suitable for them.

CHAPTER THREE: METHODOLOGY

3.0 Introduction

The chapter is divided into the following subsections: the first section describes the design, population, sampling procedure and research instruments. The last section comprises data collection methods, analysis of data and limitations of the study.

3.1 Research Design

The study employed both quantitative and qualitative research designs. Quantitative Research is an inquiry that is grounded in the assumption that features of the social environment constitute an objective reality that is relatively constant across time and settings. The dominant methodology is to describe and explain features of this reality by collecting descriptive data on observable behaviours of samples and by subjecting these data to statistical analysis (Meredith, 2003). Whilst Qualitative Research is multimethod in its focus, involves an interpretive, naturalistic approach to its subject matter. This means that qualitative research studies things in their natural settings, attempting to make sense of , or interpret, phenomena in terms of the meanings people bring to them (Bogdan and Biklen, 2003).

3.2 Study Population

The target population comprised of all grade three hearing-impaired pupils from the two randomly selected schools in Lusaka.

3.3 Study Sample and Sampling procedure

Selection of the schools was done without using any sampling procedure. The

reason being that there were only two basic schools in the area that had units for the deaf or hearing impaired children. The two schools that participated in the study were Lusaka Boys' and Lusaka Girls' Basic Schools. Twenty pupils participated in the study. All the grade three pupils in both schools were selected, as there was only one grade three class in each school. Each school had an equal chance of participating in the study. From Lusaka Boys' Basic school, there were eleven pupils, and nine pupils from Lusaka Girls' Basic School.

All pupils participated in the study. One child with special educational needs is equal to five ordinary children in this research's context. Therefore, twenty hearing impaired pupils in the study are equal to one hundred ordinary pupils (Gallagher, 1988). Gender representation was considered as the two basic schools had different gender.

3.4 Research Instruments and their Administration.

The research variables used in the study were the alphabetic principle test, phonological awareness test, reading comprehension test and the structured interviews. These were all subtests form the screening instrument known as the Basic Skill Assessment Tool (BASAT). The BASAT was developed by the Ministry of Education, Zambia. It is an individual assessment instrument, which can be used to assess basic reading and writing skills in grades one and two (See Appendices no. 1-6).

The instrument comprises of subtests which assess prerequisites and correlates

of beginning reading skills based on findings from previous research. The BASAT was administered to the pupils individually.

The spelling test consisting of ten words was used to assess spelling skills. These were ranked from simple to difficult ones. The pupils were requested to write their names first. Then the researcher had to sign the word twice before requesting pupils to write. The words were grade level appropriate, and were drawn from relevant curriculum materials. The scoring system used was based on the correct whole words.

Apart from the spelling test, a passage story was taken from the grade three reader's book that complimented the comprehension test in the BASAT. Children were requested to read a passage of the story as individuals, with the assistance of the researcher. Later, comprehension questions were asked and the pupils were expected to answer by writing. The objective was to assess the reading and understanding skills in hearing impaired children. In all the tests mentioned, sign language was used as a medium of communication for the hearing-impaired children.

Structured interviews were administered to both teachers and the policy makers at the Ministry of Education Headquarters to compliment the findings obtained from the individual tests.

3.5 Data Collection Procedure

Data collection was completed in the third term of the school calendar, from September to November. It could not be collected during the second term of the

school calendar as pupils were about to close for their vacation.

Participants were tested as individuals in their respective schools. Time allocated to each individual for the total testing time was one hour, thirty minutes. The researcher administered all the variables and collected the feedback for all the respondents.

3.7. Data Analysis

Data analysis employed both quantitative and qualitative techniques. The quantitative data was entered in the computer using the Statistical Package for Social Sciences (SPSS). The data were then coded according to the variables under investigation by entering the scores. Descriptive analysis was used to present the variables , in order to investigate the underlying relations between variables which were attributed to reading acquisition. The Qualitative data was interpreted according to the information provided by the teachers and the policy makers.

3.9. Ethical Concerns

The matter of ethics is an important one for educational researchers. In this study, ethical issues were variably considered. Permission was sought from the District Education Board Secretary (DEBS) Lusaka, to use the schools in the study. The school managers gave consent for the pupils in schools to participate in the study.

3.10. Study Limitations

The challenges faced in the field were many. But the major ones were; firstly, the pupils were just tested but not interviewed in order to find out from them the problems they face in their schooling. The parents of the children were not involved in the study. Their views and reactions towards the importance of early childhood education would probably had provided more information to the study.

Secondly, the school attendance for some pupils was inconsistent. You could test them today, and the following day they did not show up. As a result, the collection of data was delayed.

3.11. Delimitation of the Study

The study only focused on two basic schools in Lusaka Province, because these were the only schools in the same area with units for the hearing impaired with the same socio economic status, thereby making generalization on the findings limited.

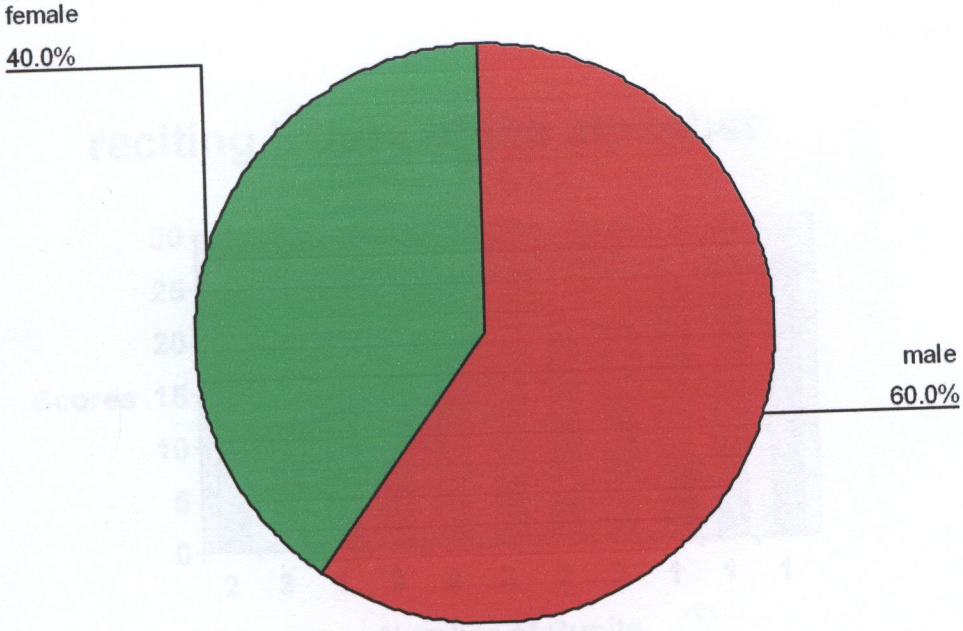
CHAPTER FOUR: PRESENTATION OF RESEARCH FINDINGS

4.0 Introduction

This section presents the findings of the study to establish the performance in reading between those who have been to pre- school and those who have not. The findings are presented according to the variables under investigation. The following are the headings; sex, age, letter knowledge, single word, reading comprehension, and passage reading. The last sub heading represents the qualitative data, mainly dealing with the views of teachers on the reading standards of the hearing impaired children in schools.

4.1 Sex of participants in the study

Figure 1. Gender distribution in the study



In figure 1, gender distribution in the study comprised of 9 females (40%)

and 11 males (60%).

Table 1. Age distribution in the study

Age	9 Years	10 Years	11 Years	12 Years	13 Years	14 years
Number	4	2	3	7	2	2

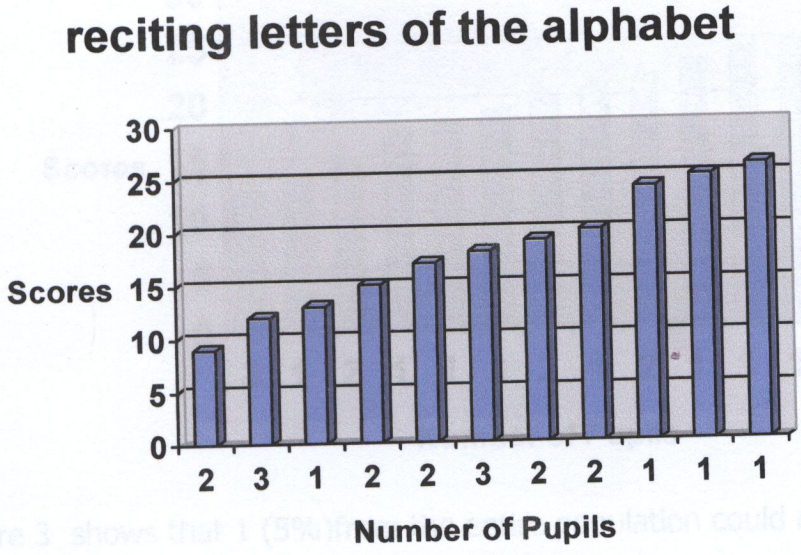
N= 20

In table 1 participants in the study ranged between the age of 9 and 14 years. The mean age was 12 Years.

4.2 Letter knowledge.

The test assessed the children's exposure to the letters of the alphabet. The pupils were required to identify the letters of the alphabet, name the letter and sign them.

Figure 2. Performance on reciting the letters of the alphabet



Performance on this task was generally above average. I (5%) pupil was

generally successful on all the letters of the alphabet as he scored 26. Another pupil (5%) was able to recite 25 correctly; while another one (5%) was able to recite 24; 2 (10%) scored 20, while 2 (10%) scored 19; 3 (15%) scored 18; 2 (10%) scored 17; 2 (10%) scored 15; 1 (5%) scored 13; 3 (15%) scored 12; 2 (10%) scored 8. The total number of participants was 20 (100%). A good number could recite between 9 and 20 letters of the alphabet.

4.2.1 Children's ability to name letters of the alphabet

The task required the pupil to sign the letters presented on the letter template.

Figure 3: Performance on the letter naming task

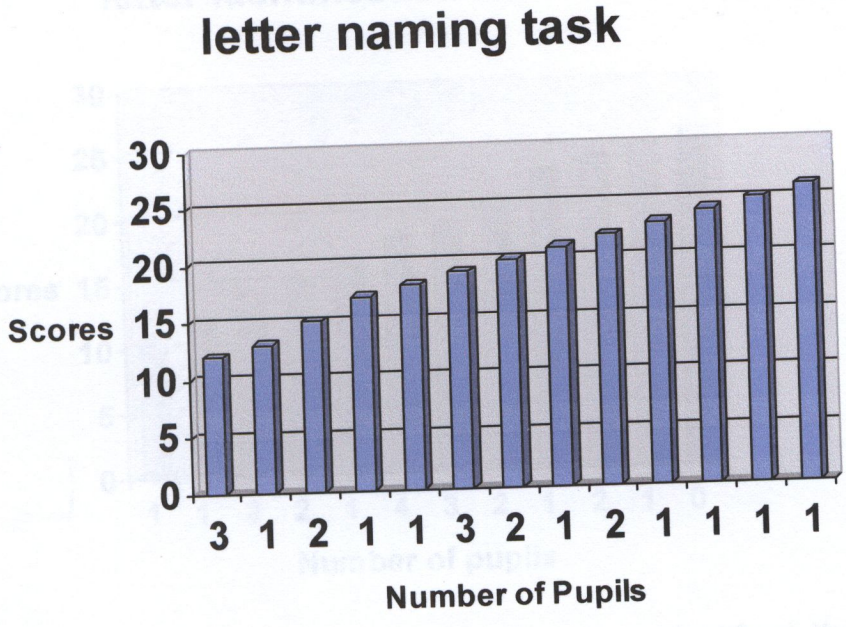


Figure 3 shows that 1 (5%)from the entire population could name all the letters of the alphabet while another one (5%) scored 25. 1 (5%) scored 24 ;

another 1 (5%) scored 23; 2 (10%) scored 22; 1 (5%) scored 21; 2 (10%) scored 20; 3 (15%) scored 19; 1 (5%)scored 18; 1 (5%) scored 17; 2 (10%) scored 15; 1 (5%)scored 13 and 3 (15%) scored 12. Total number of participant was 20 (100%). Generally, most of the children scored in the range of 12 to 22 letters as shown in the graph above. This implies that most of the children demonstrated the ability to name the letters of the alphabet.

4.2.2 Ability to identify letters of the alphabet

Children were required to identify the letters from the letter template

Figure 4. Performance on letter identification

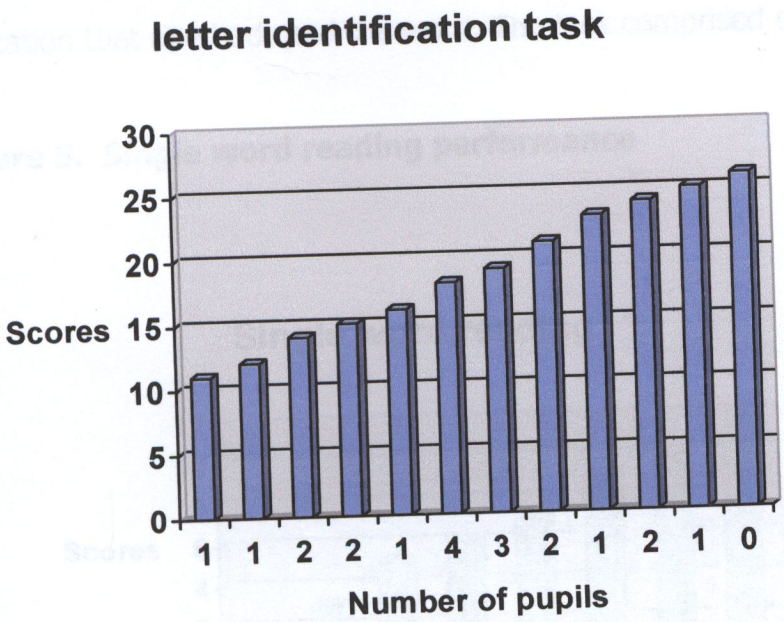


Figure 4 shows that none of the children was able to identify all the letters of the alphabet. However, the highest score was 25 and only 1 (5%) was able to score this number. 2 (10%) scored 24 ; 1 (5%) scored 23 ; 2 (10%) were able to

score 21 ; 3 (15%) 19; 4 (20%) were able to scored 18 ; 1 (5%) scored 16; 2 (10%) scored 15 ; another 2 (10%) scored 14; 1 (5%) scored 12; while 1 (5%) was able to score 11. The total number of participants was 20 (100%).

Figure 4 shows that the majority of the children (75%) were able to identify the letters of the alphabet, and only 25% of the children were able to identify some of the letters. The percentage of those who could identify the letters, seemed to be more than those who could recite and name the letters of the alphabet. Although no child was able to identify all the twenty six letters of the alphabet, the majority of the children scored between fourteen and twenty four.

4.3 Single word reading

The task required the children to read the words, and sign appropriately, an indication that one had read the word. The task comprised of 12 single words.

Figure 5. Single word reading performance

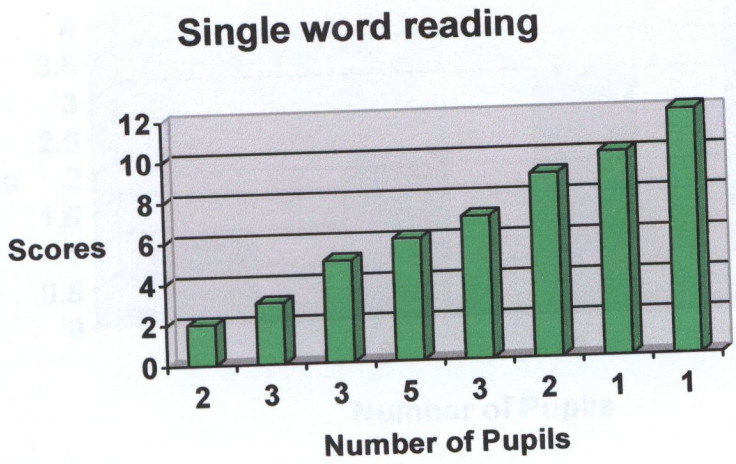


Figure 5 shows that only 1 (5%) pupil scored 12. Another 1 (5%) scored 10;

2 (10%) scored 9; 3 (15%) scored 7; 5 (25%) scored 6; 3 (15%) scored 5; 3 (15%) scored 3 while 2 (10%) scored 2. Total number of participants was 20 (100%). The children did not perform well on this task as can be seen in the graph. Most of the children scored between five and nine. This implies that the skill of reading single words was not yet acquired by the children.

4.4 Reading Comprehension

The task required the child to understand the meaning of a written text, and sign what the text is all about. The task had 4 sentences, and under each sentence were 3 choices . Pupils were expected to select the sentence that corresponded with the information in the picture, read the sentence and sign.

Figure 6. Performance of reading comprehension

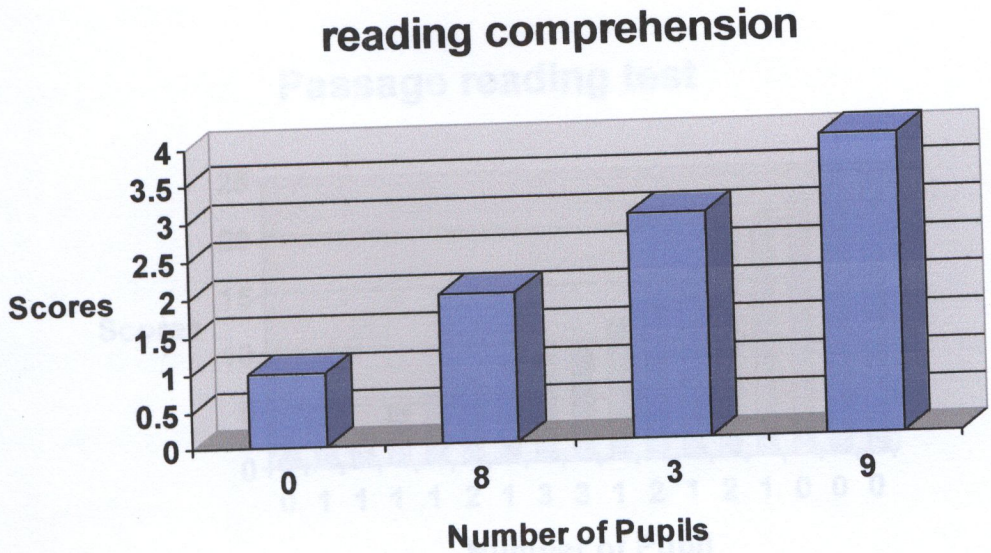


Figure 6 shows that 9 (45%) children were able to read all the 4 sentences correctly, while 8 (40%) were able to read 3 sentences correctly and 3 (15%) read 2 sentences correctly. Total number of participants was 20 (100%). Performance on the reading comprehension was above average as 12 (60%) children scored above average as can be seen in the figure above. This clearly shows that hearing impaired pupils can perform better in reading if the reading text are accompanied by pictures.

4.5 Passage reading

The reading subtest assessed the children's reading skills. Children were presented with a passage to read. The task required the children to read sentences and sign as an indication that they understood the passage.

FIGURE 7. Performance on passage reading

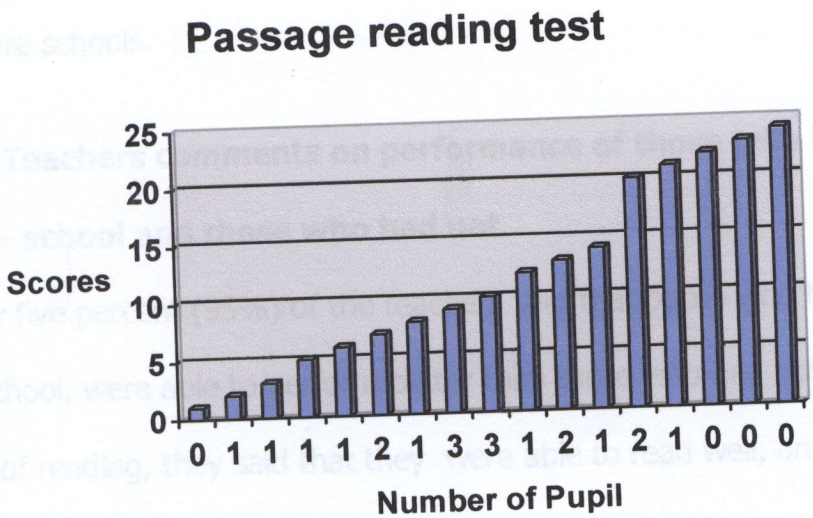


Figure 7 shows that the performance on the passage reading test was poor. Out

of 20 (100%) children in the sample, only 1 (5%) obtained the highest score of 21 while 1 (5%) scored 2 being the lowest score. 2 (10%) scored 20; 1 (5%) scored 14; 2 (10%) scored 13; 1 (5%) scored 12; 3 (15%) scored 10; 3 (15%) scored 9; 1 (5%) scored 8; 2 (10%) scored 7; 1 (5%) scored 6; 1 (5%) scored 5; 1 (5%) scored 3.

Performance slowly went down as tasks became more and more challenging. This clearly shows that only a few children in this study had reached the grade level of reading expected of those in the third grade. The ability to read sentences was found to be poor.

4.7.1 Teachers support for early childhood education

Some Teachers supported the idea of hearing impaired children passing through pre- school before they are enrolled in grade one. They felt that this enabled them to improve on the skill of communication (sign language) and teaching became easier for them. However, not all children would access these pre schools.

4.7.2 Teachers comments on performance of those who had been to pre- school and those who had not

Ninety five percent (95%) of the teachers said that pupils who had been to Pre- school, were able to perform better than those who had not been. In terms of reading, they said that they were able to read well, and easily recalled what they had learnt. Those who had not been to pre- school found

reading difficult. Teachers attributed this to lack of reading foundation in early childhood education.

4.8 Teacher's comments on other factors affecting performance

1. Lack of specialized equipment and materials

The study revealed that, both schools lacked specialized equipment and materials for hearing impaired children. The rooms were not acoustically treated, making the noise from outside interfere with the learning of the children.

The classrooms for hearing impaired children were also limited, hence, teachers did combine two to three grades in the same classroom.

2. Lack of pre- schools in the two basic schools

The study also revealed that there were no pre-schools existing in the two basic schools for children with hearing impairment. Hence, the schools received children either straight from the compounds or those referred from the University Teaching Hospital Hearing and Speech Centre to start grade one.

3. Specialised teachers

Both schools had teachers trained to handle the children with hearing impairment. Hence, they had the skill to communicate with children but they said that there was need to have more teachers in order to meet the individual needs of the children especially when it came to the preparation of individualized

educational plans (I.E.P).

4. Support from the school administration

The study revealed that the two units for hearing impaired children lacked adequate support from the school administration. This was evidenced by lack of equipment, teaching and learning materials suitable for the hearing impaired children.

5. Financial support

The study also revealed that the two units for the impaired children in both schools were not properly funded. Some teachers felt that, this is what hindered them from meeting the needs of the children.

6. Sensitization of parents

Some teachers felt that most parents, are still not aware of the existance of special education provision for children with special education needs (SEN). They said that this was evidenced by the big number of hearing impaired children starting grade one very late.

4.9.1 Views from the Senior Education Standards Officers (SESOs) and the District Education Standards Officers (Special Education) (DESOs)

The SESOs and DESOs felt that a lot needed to be done in terms of adequate support for the hearing impaired children. They acknowledged sentiments from the teachers that the government needed to open up pre- schools in some of the

basic schools in order to allow a smooth transition from pre -school to grade one. They also believed that every child had the right to education and that all needed to receive equal educational support.

4.9.2 Special education provision

The SESOs and DESOs felt that more basic schools units needed to be opened so that the hearing impaired children would learn from schools near their homes as most of them were made to cover long distances in order for them to attend school at basic schools where the unit for hearing impaired children was available.

They also acknowledged the need to have more teachers trained and deployed to the units to alleviate the pressure of work on the teachers who were already being over worked.

The SESOs and DESOs also agreed with the teachers on the need to establish Pre-school classes in basic schools. They said that this was long over due and that there was no need to have early childhood education only in the hands of private individuals and institutions without the government having an upper hand. The government should have an upper hand because this type of education was the foundation to learning especially for the children with hearing impairment and other children with special educational needs.

CHAPTER FIVE: DISCUSSION, CONCLUSION AND RECOMMENDATIONS

5.0 Introduction

This chapter discusses the research findings in the same sequence they have been presented in the preceding chapter. This is followed by the conclusion and recommendations of the study.

5.1 Discussion

5.1.1 Alphabetic Principle

The alphabetic principle comprised the subtest being the letter knowledge, which required a child to recite, name and then identify the letters of the alphabet. For the hearing impaired children, they were expected to use sign language in the recitation as well as identification. In this test, children demonstrated mastery of the skills of the letters of the alphabet. The results indicate that 75% of children were able to recite, name and identify the letters of the alphabet (Fig. 2,3,and 4).

These findings do suggest that, hearing impaired children had mastered the letters of the alphabet by third grade despite having the hearing impairment. Pupils were able to process the letters as visual symbols and thus retain the sequence of letters in a fluent manner (Wong, 1998, p 321).The way they signed with less mistakes and hesitations showed that they had mastered the skill. Although others were not able to score everything correctly, the fact that they were able to score over half of the total scores, is a clear indication that their performance was above average. In particular, those who had been to pre-school, had their performance better than those who had not been to pre-

school.

5.1.2 Single word reading test

This task required children to read the words and sign appropriately, an indication that they had read the words. Performance on the single word reading task was generally poor as shown in figure 5 . Only a small portion of the sample was able to read the words, while the majority demonstrated weakness in this test. Poor performance could probably be as a result of children not having a good foundation in one syllable words. This foundation assists children to read from concrete to abstract. This was revealed in the study as children were able to read the concrete words such as window and table, because they rendered meaning to them as opposed to the grammatical words such as yesterday which appeared to be abstract in nature.

Hearing impaired children need a lot of concrete work, examples with a lot of pictures when being taught how to read. This helps them to relate well the pictures and the words. In line with this thought, is Piaget's (1967) development sequence theory, which suggests that concept development in children progresses along a continuum from concrete thinking to abstract thought.

These findings are also in line with Asch and Nerlove (1967) findings in the USA where they noted that children's ability to read words was found to occur in concrete references to more abstract references. However, a discrepancy of mean score distribution was observed between those who had been to pre-school and those who had not. Those who had been to pre-school fell within the good and average performance, while those who had not been to pre- school fell

within the poor performers. This discrepancy in performance between those who had been to pre- school and those who had not been, can be attributed to lack of early childhood education foundation and environmental factors rather than cognitive factors.

In support of these findings, Prabaka (2002), in her study in India found out that teaching reading to children who had not been to pre- school, required a lot of time and patience from the teacher because there were problems faced by pupils at every step due to communication gap.

Also Heald Taylor (1987) pointed out that early exposure to literacy objects promoted children's enthusiasm for reading and thus providing a good foundation for learning to read. The other reason could be lack of parental involvement or support for such children who were hearing impaired, where parents could not value education for such children. Hence, pupils delayed to develop language related skills and development of reading.

5.1.3 Reading Comprehension

The reading comprehension required the children to understand the meaning of a written text. After seeing the picture, the children were required to pick one sentence from the three, the one that depicted the meaning of what the picture was all about.

From the findings of the study, it was discovered that 45% of the hearing impaired children were able to read all the four sentences correctly, a clear indication that they understood the meaning of the text and were able to relate it

well to the picture. This performance was possible because those who had been to pre school, were able to read all the four sentences correctly compared to their counterparts who had not been to pre- school.

This clearly shows that those hearing impaired children who have been to pre-school, were able to read and understand texts. This also clearly shows that those who had been to pre- school, had reached the standard level of expected *reading at third grade level. These findings are similar with Jensema's findings* (1975) who considered the effect of hearing loss on reading performance of comprehension. She observed a marked decline in reading ability as deafness increased and that hearing loss affected reading and so too did causes of deafness. Wolk and Allen (1984) in their findings also discovered that students who are deaf typically gain about one third of a grade equivalent in teaching comprehension each year making it difficult for them to read typical text books.

5.1.4 Teachers support for early childhood education

Teachers for the hearing impaired all supported the need for hearing impaired children to go through pre- school, before enrolling into grade one. The teachers felt that teaching children who had been to pre- school was not difficult as compared to those who had not. Their sentiments were supported by Chazan and Laing (1982) who said that many authorities attach as much significance of the four or five years before the start of formal schooling as the whole of childhood to adolescence. The Warnock report (1988) also supports this need by saying that for children with special educational needs skills such as reading are desperately important, and the need to acquire them effectively and early has

been widely recognized.

The teachers also mentioned that at pre- school is the starting point for pupils to learn sign language because the sign language they use at home differs with one used at school. Hence, they have to learn to communicate in a language that will enable them to grasp and understand concepts at school in the various subjects taught.

Pupils who come to begin grade one without any pre- school foundation face communication barriers. Teachers said that this makes it difficult to teach because they had to cater for two different groupings at the same time, teaching sign language to those who had not been to pre- school, then teach the work that is prepared for those who had been to pre- school.

Prabaka (2000) also pointed out that in order for a deaf or hearing impaired child to communicate, he or she needs to be taught a language. This language is sign language which would enable the child to learn and communicate with the community and school.

5.1.5 Lack of specialized equipment and materials

The study found that the two schools lacked specialized equipment and materials. For effective teaching of the children with hearing impairment, there was need to have specialized equipment in place. Teachers said that they found it disturbing to teach whilst the children kept on receiving outside noise that interfered with their learning.

Apart from having acoustically treated classrooms, teachers said that they

needed to have hearing aids available, which they would use to assist those who were partially deaf. Teachers further said that lack of these hearing aids compelled those with partial deafness to learn sign language, which was not supposed to be the case. Teachers also mentioned the need to have more visual learning aids. These aids complement well with sign language because pupils could see the aids before learning how to sign. This they would grasp and keep in their memory. This research finding is supported by Webster (1996) who emphasized that "There is need to keep the child's line of vision clear. Distance, size and form are very important to develop eye- hand coordination."

5.1.6 Specialized Teachers

The study found out that both schools had teachers trained in hearing impairment. Hence, they were qualified to handle or teach the children with hearing impairment. The study also discovered that although there were teachers qualified to teach the hearing impaired, they were not enough. The teachers were made to teach two to three different grades of hearing impaired children.

The study also found out that classrooms for hearing impaired children were inadequate. Two to three different grades learnt at the same time in the same classroom.

5.1.7 Support from the School Administration

The study found out that the units for the hearing-impaired children did not receive adequate support from the school administration. The teachers felt that the administration concentrated much on ordinary children. Teachers also

noted that the units were not adequately financially supported. They felt the monies that the school Administration spent on ordinary children was more compared to the hearing impaired children who needed a lot of specialized equipment and materials. The teachers pointed out that they were always made to use their initiative to keep the units running.

5.1.8 Views from Policy Makers.

The study revealed that the policy makers were in support of some of the sentiments expressed by the teachers for hearing impaired. They agreed that a lot needed to be in terms of education for the hearing impaired. They also noted the non availability of pre- schools at the basic schools where units for the hearing impaired were established.

The Senior Education Standards Officers also noted that there was inadequate funding from the government to support the special units fully. They also agreed that the units lacked specialized equipment and materials. They accepted the need to have the classrooms to be acoustically treated, and provide the necessary support for units if teachers were to be encouraged and motivated. They accepted the fact that teachers were frustrated, when they lacked what they really needed to foster the education of the hearing impaired.

5.1.9 Special education provision

The study revealed that, a lot needed to be done in the field of special education for the hearing impaired. From the performances in reading in this study, there was need for the hearing impaired children to have the early years education in

order for them to have a firm foundation for future development.

These findings are in line with the findings of Austin and Morris (1963) in the UK who concluded that academic success remained strongly dependent upon a learner's ability to acquire competence in reading and to apply that competence in the development of understanding in other domains of knowledge as well.

5.2 Conclusion

In spite of the sample being small, findings of this study have revealed that children who had been to pre- school, performed better in reading than those who had not been. Performance in the two schools was significantly below the expected grade level. These results imply that a certain percentage of hearing impaired children was unlikely able to reach the reading competence expected of their grade level.

The study revealed that hearing impaired children manifested weaknesses in single word reading comprehension and passage reading. Those who had not been to pre- school revealed a lot of weaknesses in these areas. Factors that contributed to these kind of weaknesses was lack of good foundation of the early years in early childhood education, poor reading skills and poor communication skills like sign language.

Results do confirm the earlier claims of the importance of the early years. It was found out that the children who performed better in all the subtests, were the ones who had been to pre- school. The findings also revealed that the children who performed badly on single word reading, performed badly also on reading

comprehension and passage reading. These findings therefore, suggest that single word reading, of one syllable, two or three were difficult to read for hearing impaired children because of their lack of auditory perception.

The study also revealed that, no single pre- school class existed in the two schools implying that the Ministry of Education had not yet implemented the policy of establishing early childhood education in government schools (MoE, 1977).

The study further revealed that classrooms for hearing impaired children were unsuitable in that they were not acoustically treated and there were too many children in one class. The findings of this study were in line with Mc Craken and Sutherland (1991) who emphasized the need to have a conducive learning environment for educating the deaf or hearing impaired children.

The other significant conclusion drawn from this study, was that the Basic skill Assessment Tool (BASAT) was still relevant. It was initially designed to assess reading and writing skills for the first and second graders ordinary children. The study has revealed that, the instrument can still be beneficial to the hearing impaired third graders.

5.3 Recommendations

Basing on the findings of this study, the following recommendations have been made to the Ministry of Education, the policy makers, curriculum planners, head teachers, teachers and parents in an effort to improve the educational provision of the hearing impaired children in the country.

5.3.1 Assessment

1. The Ministry of Education should introduce assessment as a requirement before entry into grade one. This will allow children who are felt to have special educational needs have these needs assessed by the multidisciplinary team at the hospital. Assessment will also allow children with hidden disabilities be identified at an early stage and allow intervention measures to be instituted in good time.

2. The Ministry of Education should introduce assessment of reading skills at the end of the first grade and introduce remedial intervention for those with difficulties.

5.3.2 Introduction of Pre-Schools in Basic Schools

1. The ministry of Education should introduce early childhood education for hearing impaired children. This will reduce on the number of hearing impaired children entering schools with inadequate literacy skills. This will also alleviate the reading problems that the schools are currently facing.

2. The ministry of Education should ensure that, once these pre-schools are established, they are manned by qualified special Education pre-school teachers.

5.3.3 Sensitization

1. The ministry of Education should provide counseling services for parents with young hearing impaired children on the need for their children to

begin school early. They need the information which will encourage them to support their children, and that their children can learn and be educated just like the ordinary child.

2. The Ministry of Education should develop a public information system on the education of the hearing impaired children.

5.3.4 Speech Therapist

1. The Ministry of Education should come up with a deliberate policy of training some specialists teachers as speech therapists because most of such children have speech problems.

2. The speech therapists can also be of use for other special educational needs children with speech and language problems which impact badly on their communication.

5.3.5 Teacher Training

1. The Ministry of Education should ensure that the new programmes that are being introduced in the field, for example, read on course, new Primary Reading Programme (PRP) or New Break Through to Literacy, are also introduced for in- service teachers' training in special education at the Zambia Institute of Special Education (ZAMISE). These teachers once trained, can easily adapt the skills and make them suitable for the children with special educational needs.

2. The Ministry of Education should also come up with a deliberate policy of training teachers as inclusive teachers because the hearing impaired

are not only found in basic school units but in basic schools where units have been done away with and they are learning side by side with the ordinary children in the same classes.

5.3.6 Policy

1. The Ministry of Education should involve parents in the formulation of policies that affect their children with SEN.

2. The Ministry of Education should employ more specialist trained teachers to avoid one teacher handling three grades.
3. The government should ensure that it commits itself to the international convention agreements on policy documents on special educational needs provision for example, the Salamaca convention.

5.3.7 Legislation

1. The government should enact a law on compulsory education for all children with special educational needs.

5.3.8 Resources

1. The Ministry of Education should adequately fund special education units, provide learning and teaching materials for the teachers and the children with special education needs.
2. The Ministry of Education should build or open up more units in the existing basic schools for hearing impaired children. This will decongest the classes and allow the different grades learn in separate classrooms.

6.0 Future Research

The study concentrated its efforts on finding out the performance of grade three hearing impaired children who had been to pre-school and those who had not been to pre-school in Lusaka Province.

The study raised the following issues which can be used for future researches:

1. A comparative study in reading performance between the hearing impaired pre-scholars and non pre-scholars in urban and peri urban schools.
2. Attitudes of parents with hearing impaired children towards the education and rights of their children.
3. The effect of not having a legislature on special education provision in Zambia.

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5.11 APPENDIX 1

LETTER KNOWLEDGE

The pupils will be expected to use appropriate signs for the following letters.

Table 2

A	**O**	**I**	**K**	**B**
Z	**P**	**H**	**G**	**X**
L	**U**	**E**	**T**	**D**
F	**N**	**S**	**M**	**V**
Q	**W**	**C**	**Y**	**R**
J				

LETTER KNOWLEDGE	ABLE TO	NEEDS HELP	NOT ABLE TO
1. Recites letters of the alphabet.			
2. Names letters of the alphabet.			
3. Identifies letters of the alphabet.			
NOTE: Able to = able to read. Needs help= is able to read some. Not able to = is not able to read any.			

APPENDIX 2

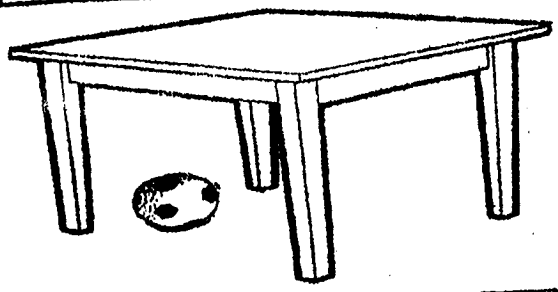
Single word reading test

The pupil will be expected to sign appropriately the following words.

Table 3

Table	Cup	Pencil
House	Pot	Yesterday
School	Chair	Yellow
Dog	Window	Happy

APPENDIX 3

G. Reading Comprehension (Tick the child's response)	
	a. The ball is on the table. b. The ball is under the table. c. The ball is under the car.
	a. He is standing. b. He is walking. c. He is sleeping.
	a. She is drawing a chair. b. She is drawing a bed. c. She is making a drum.
	a. The sun is not shining. b. The sun is shining. c. The moon is shining.

3 to 4 items	Yes
1 to 2 items	Needs help
0 items	No

H. Additional Information: _____

_____

_____

APPENDIX 4

PASSAGE READING TEST

Sampa and Sara

1. Sampa and Sara lived in a small house with their mother. Their mother worked but she didn't have very much money, so she couldn't buy a lot of the things that they needed. She worked every day and sometimes she worked on Sunday, too, but still they didn't have enough money.

2. Sampa and Sara went to school in the morning and in the afternoon they worked in the house. They swept the floor and washed the shirts and dresses. They cleaned the pots and plates and cooked the food. They ate when their mother came home. They didn't eat in the morning before school and they didn't eat lunch. They didn't eat because there was no money to buy food. They did not work well at school because they were always tired and hungry.

APPENDIX 5

SEMI – STRUCTURED INTERVIEW FOR THE SPECIALIST TEACHERS

An interview will be conducted with the teachers individually. The interview is meant to get qualitative information that would otherwise not be easily obtained with a questionnaire.

Special Education Teachers are special in the sense that, they have special skills to handle children with various disabilities, for example the visually impaired, the hearing impaired etc. As a specialist teacher, I would like to find out a few things about the provision of special education to the children with hearing impairment in their early years.

1. Do you have a pre-school class for hearing impaired children in the
2. school?

a) If yes, for how long has it been in existence?

b) If No, why has it not been established?

3. How many children in your class have been to any pre-school, whether Pre-school for special needs or for ordinary children?
4. How has been their performance like between those who have been to Pre-school and those who have not?
5. In terms of reading, how has been their performance?
6. What are some of the problems experienced in reading?
7. What factors do you attribute these problems to?
8. Do you receive any support from the School administration, Ministry of education and Parents?
9. What kind of support do you receive?

10. Is it sufficient enough?
11. What are some of the problems you experience when handling these children?
12. Are there any recommendations that you can make to the Ministry of Education in terms of special education provision for children with hearing impairment?

APPENDIX 6

SEMI – STRUCTURED INTERVIEW FOR THE SENIOR EDUCATION STANDARD OFFICERS (SESO) AND THE DISTRICT EDUCATION STANDARD OFFICER (DESO) (SPECIAL EDUCATION).

Special Education has bee recognized as one important segment in the Ministry of Education. Units have been opened, special schools established and the teaching has been extended even to Hospitals where hospital teaching is practiced. But one area that seem to have been neglected is the area of special early childhood education.

As a SESO/DESO, I have questions that I would like to find out form you in terms of special education provision for special needs children especially, the hearing impaired children.

1. Are you in a position to know whether the Ministry of Education has established any pre school units in the Basic Schools in Lusaka?

a) If Yes, how many are they?

b) If No, what could be the reasons that have made the ministry fail to establish these special pre-schools in the Basic Schools?

2. The Ministry of Education upholds the principle that every individual has an equal right to educational opportunity. What does this statement mean to you?

3. Is it necessary for a child with hearing impairment to under go Pre-school education?

4. Among the special schools available in Lusaka, any idea if any has a special pre-school unit and what disability group is catered for?
5. In Educating our Future (1996), the Ministry of Education pledged to cooperate with private, religious community and philanthropic organizations in meeting the special educational needs of exceptional children. Has this been achieved?
6. What do you think are some to the areas that the ministry need to work on, as far as special pre-school education or early childhood education is concerned?
7. Does the Ministry of Education recognize the importance of the early years?
8. Do you agree with the statement that children who have been to pre-school, have few problems in reading and grasping new concepts, compared to their counterparts who have not?
9. How many special education teachers have been trained in special education teachers?
10. Where are they posted after they have completed their training?
11. Why is that trained special pre-school teachers are miss placed and go to teach in the main stream instead of the units or special schools?
12. Is the Ministry of Education comfortable with the state of affairs of lacking pre schools for hearing impaired children?

13. How can this situation be corrected?
14. What are the future plans of the ministry concerning pre-school education for hearing children?
15. Any consideration for special needs children in terms of pre school education in the rural areas?
16. Why has it taken the ministry so long to implement most issues concerning special education provision?
17. In your position as SESO/DESO, what is that you would like to see put in place to se to it that hearing impaired children are catered for in terms of pre-school or early childhood education?