

**CHALLENGES TEACHERS FACE IN USING THE NEW BREAKTHROUGH TO
LITERACY COURSE TO TEACH READING TO GRADE ONE LEARNERS WITH
HEARING IMPAIRMENTS**

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BY

MAAMBO CRISPIN

**A Dissertation Submitted to the University of Zambia in Partial fulfillment of the
Requirements for the Degree of Master of Education in Special Education**



The University of Zambia


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DEDICATION

I would like to dedicate this study to my parents, my friends, my wife Patricia Kasamba Mulekwa and children who continued to stand for me during the time of my studies. I am also grateful to God who has preserved my life so far.

DECLARATION

I, Maambo Crispin, do hereby declare that the work presented in this dissertation for the Degree of Master of Education in Special Education is my own work and has not been presented either wholly or in part for any other degree at any university.

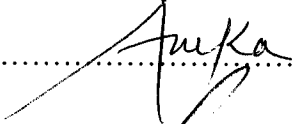
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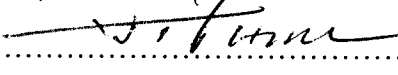
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APPROVAL

The University of Zambia approves this dissertation of MAAMBO CRISPIN as fulfilling part of the requirement for the award of the Degree of Master of Education in Special Education.

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ABSTRACT

This study aimed at finding out the challenges that teachers face in using the New Breakthrough To Literacy course to teach reading to Grade One learners with hearing impairments. The study was guided by the following objectives :To find out the challenges Grade One teachers of the hearing impaired face in using the New Breakthrough To Literacy course kit to teach reading, to find out whether learners with hearing impairments break through to literacy in Grade One; and to find out Grade One teachers' views on the suitability of the NBTL course methodology for teaching reading to Grade One learners with hearing impairments.

In order to achieve the above stated objectives, respondents were purposively sampled and were drawn from selected schools and units for the hearing impaired. The sample consisted of fifteen (15) special education teachers for the learners with hearing impairments picked from Southern, Lusaka and Copperbelt Provinces.

Primary information was gathered using questionnaires for teachers of the hearing impaired.

The study was both qualitative and quantitative in nature as it captured views and experiences of respondents from which numerical figures were derived. The content analysis method was used to analyze the data.

The study found that the major challenges that teachers faced in using the NBTL course to teach reading were that local signs that the children came with to school when they were being introduced to reading were not similar such that teachers did not understand them and learners themselves, which made it difficult for teachers to apply the NBTL methodology. The other challenge was that they did not complete the sets in all the stages like the so called

normal since they learnt at a slower pace. The study also showed that there weren't adequate instructions and teaching resources that were needed to sufficiently teach reading to learners with hearing impairments. This included specialized guidelines from the Curriculum Development specialists. The study also showed that the vocabulary in the NBTL course had limitations in sign language for some Zambian Language words. This made it difficult for teachers to teach.

Arising from the findings of this study, various recommendations have been made, among which is that teachers in schools and units for the learners with hearing impairments should hold regular training workshops to discuss on how some aspects such as NBTL can best be taught.

List of acronyms used

ASL	-	American Sign Language
B.Ed (Special)	-	Bachelor of Education with Special Education
CDC	-	Curriculum Development Centre
HI	-	Hearing Impaired
INSET	-	In-service Training
KSL		Kenya Sign Language
M.Ed (Special)	-	Master of Education with Special Education
MoE	-	Ministry of Education
NBTL	-	New Breakthrough to Literacy
PRP	-	Primary Reading Programme
ROC	-	Read On Course
SITE	-	Step In To English
UNZA	-	University of Zambia
USA	-	United States of America
ZAMISE	-	Zambia Institute for Special Education
ZNAD		Zambia National Association for the Deaf

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CHAPTER ONE

INTRODUCTION

This chapter presents a background to the study and an overview of the NBTL course. The chapter also presents the statement of the problem, purpose of the study, objectives of the study, research questions, significance of the study, limitations of the study and definitions of key terms used in the study.

Background to the Study

In 1998 the Ministry of Education introduced the Primary Reading Programme (PRP) which aims at improving literacy levels among the Zambian learners. One of the strategies the programme uses is the New Breakthrough to Literacy (NBTL) course. At Grade One the course is aimed at introducing initial literacy through a familiar local Zambian language. Each Grade One class has an hour per day of reading and writing in the local language. The course is now followed in all basic schools. The schools and units for the hearing impaired also use this course. The schools and units are expected to use a local sign (equivalent to a local language) and move on to using a universal sign language (equivalent to English) in Grade Two onwards.

There are three types of learners with hearing impairments. Some of them are learners who do not hear at all. Sometimes they are referred to as the deaf. Other learners are unable to produce sounds of speech. Another group is composed of learners who are hard of hearing who have a certain degree of hearing. These use

hearing aids in order to hear. All the learners with hearing impairments learn like their peers. This study focused on the hearing impaired who are deaf. They can neither hear nor talk.

Although the deaf also learn using the NBTL course, they are different from their mainstream school peers in terms of language of communication. They have no spoken language. The only means of communication that they use are signs. In the Zambian situation the deaf have two types of signs that they use. There are local signs and universal signs. The local signs are signs used in the home for the purpose of communication with parents, siblings and local community. Therefore, deaf children may use different local signs. When deaf children start Grade One they carry with them the different home signs. The signs may not be easily understood by their hearing impaired classmates and teachers. In one classroom there may be as many local signs as there are learners. The deaf learn all subjects in the curriculum. The mode of instruction that is used to access the curriculum is sign language. Reading is the key to learning the content of the school curriculum. Failure to access the curriculum through reading disadvantages a child.

Overview of the New Breakthrough To Literacy course

Ministry of Education (2006) states that NBTL is a course through which children spend an hour each day to learn to read and write easily and accurately in their local language in Grade One. In the NBTL course right from the start,

children see in printed form, words that they use in everyday talk in their local language. They realize that what they read is something which they already know a lot about but in a different form. New Breakthrough uses the Language Experience Approach. This means that it starts with what children know, that is, their spoken language.

An NBTL class is set very carefully. The classroom has learners' desks and benches divided into four separate groups with Group Sentence Makers for each group. There is a distinct corner, known as a Teaching Corner (TC) established in the class for carrying out focused work with individual groups. A Reading Corner is established to display the readers. A collection of reading materials in local language is placed on the shelf or table. Gradually, this can also include learner's own stories. The walls are kept as lively as possible (talking walls) with children's work, pictures and captions displayed under subject areas for learners to look at and read. This is done in order to create a rich reading environment in the class for the learners. Most importantly, the core words and sentences learnt are displayed on the wall for revision. There is also the New Breakthrough Kit which consists of a variety of resources that together support the learners in their task of learning to read and write, and the teacher's task of teaching them. They include the Sentence Maker and Word Cards, with two types of word cards used with the sentence maker. There is a Phonic Flip Chart too. It contains 12 pre-reading posters and about 50 phonic posters. They are used to teach the different phonemes found in the language. The other kit is the Conversation Posters,

which are similar to language posters. They are used to facilitate conversation around these four familiar themes; the home, the farm, the town and the school. From these discussions the teacher is able to elicit the key sentence of the day.

The Learners Activity Book (LAB) accompanies the teacher's activity book but is for learners to work from (they do not write in it). There are 20 Learner's Activity Books in a kit. This course has a set of story books, Rainbow Readers consisting of 26 books with 5 copies of each title. These books are graded according to ability. Red is for basic level, yellow and then green. The last item is the slate. This is a small chalkboard in the NBTL kit. It is a group slate. It can be used to set group activities such as handwriting practice.

Statement of the Problem

Grade One learners with hearing impairments use the NBTL course. According to the NBTL course, the learners are expected to use a familiar local language in learning to read in Grade One. The learners do not share similar local sign language. They use different local signs that they come with from their homes. The use of different local signs by learners may make it difficult for teachers to teach reading to the learners. The study came about because there is no research that had been one on this important subject in Zambia.

Purpose of the Study

The study made an attempt to find out the challenges teachers face in using the New Breakthrough To Literacy course to teach reading to Grade One hearing impaired learners.

Objectives of the Study

General Objective

The general objective of this study was to find out the challenges teachers face in using the New Breakthrough To Literacy course to teach reading to Grade One learners with hearing impairments.

Specific Objectives

The following specific objectives guided the study:

- To find out the challenges Grade One teachers of the hearing impaired face in using the New Breakthrough To Literacy course kit for teaching reading.
- To find out whether learners with hearing impairments break through to literacy at the end of Grade One.
- To find out Grade One teachers' views on the suitability of NBTL course methodology for teaching reading to Grade One learners with hearing impairments.

Research Questions

The following questions directed the study:

- Do Grade One teachers of the hearing impaired face any challenges in using the New Breakthrough To Literacy course kit for teaching Grade One learners with hearing impairments?
- Do Grade One learners with hearing impairments break through to literacy at the end of Grade One?.
- What are the Grade One teachers' views on the suitability of NBTL course methodology for teaching reading to Grade One learners with hearing impairments?

Significance of the Study

The findings of this study may be important for the Ministry of Education policy makers and implementers. The findings may help them evaluate the effectiveness of using the NBTL course on teaching reading to Grade One learners with hearing impairments. The findings may also be important for Curriculum Development Centre subject specialists. They may collaborate with teachers for the hearing impaired to work out appropriate curriculum materials for the hearing impaired children at Grade One level and other higher levels.

For the Zambia Institute of Special Education (ZAMISE) and other colleges that train special education teachers the findings of this study may guide their practice so that they prepare adequately teachers for the challenges which have been highlighted in this study.

For the classroom teachers in special schools and units for the hearing impaired, the findings may guide them as they share their experiences at school and zone levels. The findings may also be useful to parents of learners with hearing impairments in that they may use the suitable language (signs) at home which may also be used at school. In this way, the learners' language skills may develop at a faster rate. This no doubt would enhance the learners' academic performance.

Limitations of the Study

The researcher was not able to go to all schools and units in the country that teach learners with hearing impairments due to financial and time constraints. As a result, this study used a limited sample. In addition, literature on teachers' views on the NBTL methodology and on the teaching of reading to the learners with hearing impairments was scarce. Due to the stated limitations the results of this study may not be generalized to all schools and units for learners with hearing impairments

Definition of Terms

For the purposes of this study the following terms have been used and defined as follows:

- **Deaf** – a hearing impairment which is so severe that a child is impaired in processing linguistic information through hearing, with or without amplification, which adversely affects educational performance.
- **Grade One** – the first grade level of education in a basic school in Zambia.
- **Hard of hearing** – a hearing impairment, whether permanent or fluctuating, which adversely affects a child's educational performance but which is not included under the definition of 'deaf.'
- **Hearing impaired** - those children who seem to experience problems in communication simply because their hearing loss either prevents them from hearing speech at all, or enables them only to hear speech which is distorted. It also includes those that do not hear any speech at all and have no speech too.
- **Local Signs**- the gestures that a local community, or home uses to communicate with a deaf family member. The members of that family or community may be the only ones that understand them.

- **Reading** - the interpretation of written symbols into speech sounds or the interpretation of words in text on paper into sounds or signs by learners
- **Sign Language**- a language for deaf people, where a group of signs are used in a combined way to form distinct points or pictures with which one can represent various ideas. It is a set of gestures representing words or concepts.
- **Zambian languages** – refers to the languages officially designated as school subjects, namely the Bemba, Kaonde, Lozi, Lunda, Luvale, Nyanja and Tonga.

CHAPTER TWO

LITERATURE REVIEW

The present chapter provides a review of the available literature which is relevant to the present study in order to place this study within the context of similar studies. This is done to provide a justification for the study. The chapter is organized under two sections as follows:; how learners with hearing impairments learn to read; challenges in teaching reading to the deaf.

How learners with hearing impairments learn to read

Conrad (1979) studied how the deaf recognize printed words. In the study on teaching literacy to the deaf, Conrad found out that for the deaf, having never heard sound makes it much harder for them to learn to speak or read English. The study revealed that roughly 1 in 1000 children in the United States were born with severe to profound hearing loss. A child with a profound hearing loss may hear loud sounds perceived as vibrations. In order for the child to learn to read, the child must learn the mapping between the spoken language and the printed words. For the deaf child this is not easy. The deaf child does not have access to phonological code and many do not know any language well. Tharp and Gallimore (1991) explain literacy as patterns of language and cognitive development that can develop through teaching and schooling. To them a literate person is one who is capable of reading, writing, speaking, computing, reasoning, and manipulation visual as well as verbal symbols and concepts. This

means that speech is not the only way to language. Language can be learned through the eye rather than the ear. Deaf children can learn sign rather than spoken language. Erting (1992) states that the deaf child should be as whole as a competent learner but one who requires a visual environment in order to thrive and that the problem does not reside in the child but in the environment. Erting argues that it is necessary to meet the children in the visual world where they are and help them understand the world, which takes hearing for granted.

A study carried out by Moats (1995) on teaching spellings concluded that it was important to know the alphabetic principle which is that individual letters with individual sounds are blended to make words. The study established that this is the key step in learning to read. Using the relationship between letters and their sounds is the most efficient way to read printed text. When reading, persons recode each word from its letters (orthography) into the smallest units of sound whose differences are significant for language (phonemes). Unlike learning to speak, the ability to read is not acquired spontaneously. Even children with good language skills need instruction and guidance when developing phonemic awareness. This view is supported by an earlier study by Jorm and Share (1983) which found out that the use of the alphabetic principle (phonological rules) was essential to children when acquiring the skill of reading.

In a study by Clark (2003) on how deaf learn to read, the findings revealed that reading requires two related capabilities. First one must be familiar with a language and second, one must understand the mapping between that language

and the printed word. The findings indicate clearly that deaf learners are disadvantaged on both counts, but some deaf learners do read fluently. The findings also show that individuals with good signing skills are not worse readers than individuals with poor signing skills. From this study, it is evident that the skill in signing does not guarantee the skill in reading. Reading must be taught. This line of thinking was also highlighted earlier by Lillo-Martin (1999) who argued that deaf children learn to sign as easily and spontaneously as hearing children learn to speak because deaf people learn ASL more easily than English, most have low English skills.

According to Klima & Bellugi (1979) most deaf people in USA prefer American Sign Language (ASL) to English. ASL is the use of gestures or signs of various hand shapes among the deaf. It consists of a large variety of signs and words borrowed from English. However, ASL has a grammatical structure that is completely different from that of spoken English. It is therefore the most commonly used language by deaf adults in the United States and Canada (Lane, Hoffmeister, & Bahan, 1996).

Mayberry & Eichen (1991) show that children who are exposed to sign language late in childhood turn out to be less proficient and may never catch up in adulthood than the children who are exposed in early childhood. The findings suggest that deaf children read by using a code that is not based on sound and that deaf children of deaf parents are better readers than deaf children of hearing parents. One reason for this is that deaf children of deaf parents are more likely

to have their hearing loss identified earlier and get the appropriate educational needs. In this way they become fluent in ASL or other sign language. This study showed that knowing ASL does not interfere with learning to read in fact it may help to learn to read. Knowing a language is better for learning to read than not knowing one at all. Similarly, the deaf children should know a sign language like ASL in order for them to be able to read. Padden and Ramsey (2000) call this technique “chaining”. In the technique the teacher fingerspells a word, then points to the word written on the blackboard. Finally the teacher uses an initialized sign for the word. Currently there are several programs in use for educators and deaf children. The teacher and the child must establish a dialogue to communicate but the problem is that they begin in different places. Very few teachers are deaf and / or fluent in sign language. Teachers and parents of deaf children need to work together to create solutions.

From the studies cited in this section, it is apparent that the bottom line is that both the hearing and the deaf need to be taught to read. Learning to read is totally different than learning to speak. Children will learn the language of their community just by living there. Reading does not come naturally to all children or all individuals. The deaf and hearing must work together to understand how to instruct and turn signers into readers. There is a lot to learn on this subject and together hearing and deaf can teach and learn together.

According to Schleper, (1996), learning to read and write is part of the language acquisition process, and many of the difficulties deaf learners experience are

related to their lack of a strong language base either in English or ASL. Learners who are deaf or hard of hearing face unique challenges when reading, particularly those youngsters who have been deaf since birth. Yet with targeted interventions and accommodations in reading instruction and assessment, learners who are deaf or hard of hearing can become proficient readers. There are three main challenges learners who are deaf or hard of hearing face. Firstly, deaf learners may lack some background knowledge that hearing students bring to reading. Secondly, deaf learners lack exposure to spoken language making teaching traditional sound-letter correspondence difficult, if not impossible. Thirdly, for those deaf learners whose first language is signing, learning to read and write in English constitutes learning a second language with a different grammar, lexicon, and syntax.

Schleper (1996) in his study on the principles for reading to deaf children has also shown that a learner who is deaf and whose first language is ASL often learns to read by looking at English print while a teacher, parent, or other instructor interprets the story in ASL. In this way, the child is helped to relate the written word to the signed meaning. Beginning readers who are deaf or hard of hearing, like most learners, also use illustrations and pictures as an aid to construct meaning from text. Learning to read for these learners entails moving from signed elaboration toward direct translation of English print to ASL, followed by higher level comprehension, interpretive, and inference skills.

Findings from a research conducted by Goldin-Meadow and Mayberry (2001) suggest that individuals with good signing skills may be better readers than individuals with poor sign language skills. In a related study, Hafer & Wilson (1998) suggest that ASL can improve reading and communication skills for other groups of special needs students, such as those with learning disabilities, autism, or aphasia, when used as a supplementary way to communicate. This is in contrast to earlier studies by Newport & Meier, (1985), who found that ASL did not ease the task of learning to read because of its lack of congruence with the linguistic structure and vocabulary of written English.

There is no consensus among researchers, educators, parents, or those who are deaf or hard of hearing about the best reading strategies for students who are deaf or hard of hearing. Some argue that ASL is the primary language of a vibrant deaf community in the United States, and that a deaf child is best prepared for a productive life when ASL is taught as the primary language of instruction. Others suggest that speech reading or manually coded English should play an important role in the educational program of a student who is deaf or hard of hearing. Still others argue that technology, such as cochlear implants, should routinely be made available to children who are deaf or hard of hearing. The implications for both instruction and assessment of reading may be quite different depending on the perspective one takes on these issues.

For example, research by Bench (1992) has shown that each spoken language has a sign language counterpart in as much as each linguistic population will

contain deaf members who will generate a sign language. In much the same way that geographical or cultural forces will isolate populations and lead to the generation of different and distinct spoken languages, the same forces operate on sign languages and so they tend to maintain their identities through time in roughly the same areas of influence as the local spoken tongues. This occurs even though sign languages have no relation to the spoken languages of the lands in which they arise. There are notable exceptions to this pattern, however, as some geographic regions sharing a spoken language may have multiple, unrelated signed languages. Bench (1992) also argues that communication can be conveniently separated into oracy and literacy. Oracy involves the skills of speaking and listening. Literacy refers to reading and writing.

Challenges in Teaching Reading to the Deaf

According to Milone, (2003) in his interview with Jennifer Herbold on A Teacher Takes on the Challenges of Deaf Literacy he said that she responded that it can be difficult to teach deaf children to read. The respondent also said she strongly believed, and that there's considerable research to support this opinion, that the difficulty is due to external as opposed to internal factors. The majority of students arrive with very little language. Most of them are not exposed to ASL or to any fully accessible language from an early age. She also said that our teachers are faced with the challenge of developing children's world-knowledge and general semantics (in both ASL and English) at the same time that they are teaching them to read. For example, many of the children arrive at school with

no or very little understanding of "wordness"--the metalinguistic concept that "words" exist. Even at kindergarten, they are already a few years behind their peers.

Jennifer also said that the majority of them oftentimes, they are students who have struggled in other programs (mainstream, oral, inclusion, self-contained, etc), and they have very little understanding of ASL and English. Again, educators are challenged with the daunting task of playing catch up.

Research (*kenyadeafnet.org*) in Kenya shows that people need to acquire a first language to be able to learn a second and third language. For deaf learners, the only language that is acquirable is Kenya Sign Language (KSL) and this is true only if KSL is constantly and consistently in the environment.

In spite of the challenges that all education programs face, Milone (2003) stated that especially with a child who has not had access to language/communication since birth, strongly believes it is never too late to succeed. Although literacy learning may become more difficult with time due to both external and internal factors, we can still teach all students to read.

CHAPTER THREE

METHODOLOGY

This chapter presents the research methodology. The elements described are the research design, target population, sample size, sampling procedure, research instruments, data collection procedure, and data analysis.

Research Design

The study was designed in form of a survey. Sidhu (2003:108) describes the survey research design as “a method, which deals with clearly defined problems and has definite objectives. It requires an imaginative planning, a careful analysis and interpretation of the data and a logical and skilful reporting of the findings.” White (2005:101) further describes it as “usually collecting data by interviewing a sample of people selected to accurately represent the population under study. Each person in the sample is asked the same series of questions, and responses are then organized so that conclusions can be drawn from them. This information *is used to solve a particular problem.*”

According to Cohen and Manion (1994) a survey design is one of the research descriptive methods. It attempts to investigate incidence, distribution and interrelations among sociological and psychological variables. The survey research design was selected because it could provide the desired information about the extent to which teachers for the Grade One hearing impaired in schools

and units for the hearing impaired use the NBTL course to teach reading. Decisions concerning the effectiveness of the course in the teaching of reading could be based on the responses that the questionnaires bring out.

Survey research design usually uses the following data gathering techniques: interviews, questionnaires, test of attainment or performance and attitude scales (Bikken, 1992, as cited by Banda, 2002:35). In this research, questionnaires were preferred and used.

Target Population

A population is a group of elements or causes, whether individuals, objects or events, that conform to specific criteria and to which we intend to generalize the results of research (McMillan & Schumacher, 2001:169).

The population of the study consisted of, teachers for learners with hearing impairments from Southern, Lusaka and Copperbelt provinces. The teachers for the learners with hearing impairments were selected from two (2) special schools, St.Mulumba as a peri-urban school and St.Josephs Special School as a rural and one (1) unit, Lusaka Girls Basic School Unit as an urban school.

Sample Size

The sample consisted of fifteen (15) teachers for the learners with hearing impairments picked from Southern, Lusaka and Copperbelt Provinces.

Table 1: Teachers' responses on their teaching experience

Initial Training	Male	Female
Secondary School Teacher	0	0
Primary School Teacher	10	5
Pre-School Teacher	0	0
Other	0	0.

In this study all the teachers who responded to the questionnaire indicated that they had trained first as primary school teachers before taking an in-service training in special education to obtain a certificate, a diploma or degree. This is represented by a total of 100%. Some of them were at that time teaching Grade One learners with hearing impairments while others had taught the Grade One learners with hearing impairments before but were at that time teaching a higher grade. They were asked to participate because they had an experience having taught Grade One before teaching a higher grade.

Table 2: Teachers' responses on experience and training in teaching reading

Respondents	No. of Respondents	Percentage
Experience in teaching Grade One	15	100
Training in teaching reading to HI	15	100

Table 2 shows that among the teachers for the learners with hearing impairments, 100% of them had at one time taught Grade One learners with hearing impairments and received training on teaching reading. The schools and units that they teach also conduct in-service training.

Gender and age of Respondents

Respondents were asked to indicate their sex and age. Their responses are shown in Table 3.

Table 3: Teachers' responses on their Sex and age

Age Group	Male	Female	Total
20-29	0	0	0
30-39	6	3	9
40-49	3	2	5
50/over	0	1	1
Totals	9	6	15

The distribution of the sample by gender and age shows that more males took part in the study as compared to females. It also shows that teachers for learners with hearing impairments ranged from 30-50 years of age.

Academic and Professional Qualifications of the respondents

The distribution of the sample by qualification in Table 4 below shows that the sample consisted of Form V or Grade Twelve (12) certificate holders from which there is one (1) degree holder, nine (9) diploma holders and five (5) primary teachers' certificate holders.

Table 4: Teachers' responses on their academic and professional qualifications

Qualification	Male	Female	Total
Degree	1	0	1
Diploma	4	7	11
Certificate	1	2	3
Grade 12/Form 5	9	6	15

The table shows that all the special education teachers in the study had an academic qualification of either Form 5 or Grade 12 certificate. In case of professional qualifications One (1) had a first degree, eleven (11) had diplomas, and three (3) had certificates in special education.

Sampling Procedure

Purposive sampling was used to pick teachers for learners with hearing impairments. The researcher purposively selected the teachers who were teaching Grade One learners with hearing impairments and those who at one time taught Grade One and were required for the study.

Purposive sampling is a non-probability sampling procedure in which the respondents or units are selected purposely. This sampling procedure has an advantage in that the purpose of the study can be fulfilled even with a small sample which is picked purposely and carefully.

Research Instruments

In order to get views from the teachers of learners with hearing impairments and head teachers, questionnaires and interviews were used. Questionnaires were administered on teachers for learners with hearing impairments.

Questionnaires

Questionnaires were used for teachers for learners with hearing impairments because these teachers teach Grade One or at one time taught Grade Ones using the NBTL approach and hence had experience on the course. The questionnaires were also more economical in terms of resources and time. Questionnaires also allow the respondents to express their views freely. According to Muzumara

(1998:50), quoting a questionnaire has the advantage of obtaining responses from several categories of cadres within the group being sampled to widen the scope and quality of the data being collected.

White (2005:126-127) says that a questionnaire is the most widely used technique for obtaining information from subjects because it is relatively economical, has the same questions for all subjects, can ensure anonymity and it contains questions for specific purposes.

In this study a questionnaire for teachers consisted of close-ended questions except for a few, which were open-ended and intended to seek opinions of the respondents when they indicated Yes or No and needed a reason or reasons for such a response. The questionnaire for teachers of learners with hearing impairments is attached as Appendix 1.

Data Collection Procedure

To enable the researcher collect the needed data from the sampled participants, the researcher obtained an introductory letter from the Assistant Dean Post-graduate Studies at the University of Zambia, School of Education. The researcher used the introductory letter to further seek and obtain permission from the head teacher at each of the schools where data was collected.

The researcher personally went to the special schools where the questionnaires were administered to special education teachers for learners with hearing impairments in the third term in September. This was considered to be an appropriate time as pupils had been in school for more than eight months. The respondents were informed of the type of research and its importance and the type of instruments that would be used during the research, before they got started in order to remove apprehension. This also helped to remove the fear of victimization and promoted honest responses from participants. They were also informed of their rights to anonymity, i.e. not to have their names reflected in the report. Respondents were asked to fill in the questionnaires independently with no influence from any source in the school and immediately handed them.

The questionnaire for teachers for the deaf and hard of hearing learners (Appendix 1) was administered to fifteen randomly selected teachers. In all the schools questionnaires were completed while the researcher waited. All the questionnaires were received by the researcher. The teachers responded to the questionnaires following prepared questions which were asked and responses were recorded in a notebook.

Data Analysis

Both qualitative and quantitative methods were used in the analysis of data, though most of the analysis was done qualitatively. Descriptive statistics were

used to analyse the data, by using frequency distributions, percentages and graphic presentations in form of charts and tables.

CHAPTER FOUR

PRESENTATION OF RESULTS

This chapter presents the results of the interviews and questionnaires conducted to determine the challenges teachers face in using the NBTL course to teach reading to Grade One learners with hearing impairments in schools and units for the hearing impaired at St.Mulumba, Lusaka Girls Basic and St.Joseph schools.

Challenges teachers face when teaching learners with hearing impairments to read using the NBTL kit

The figure below shows responses from teachers when asked about similarities of local signs learners with hearing impairments come with to school the first time they enter school.

Figure 1: Teachers' responses on similarities of local signs

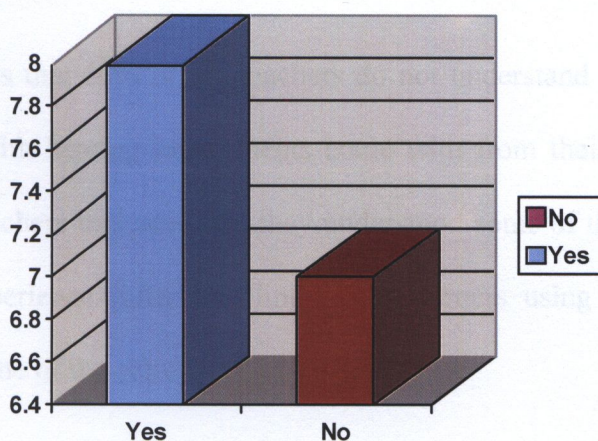


Figure 1 above indicates that 53% of the teachers responded that learners with hearing impairments do not use similar signs when they first come to school and that the signs learners bring to school were usually different as the learners come from different places where different signs were used.

Figure 2: Teacher's responses on their understanding and utilization of local signs

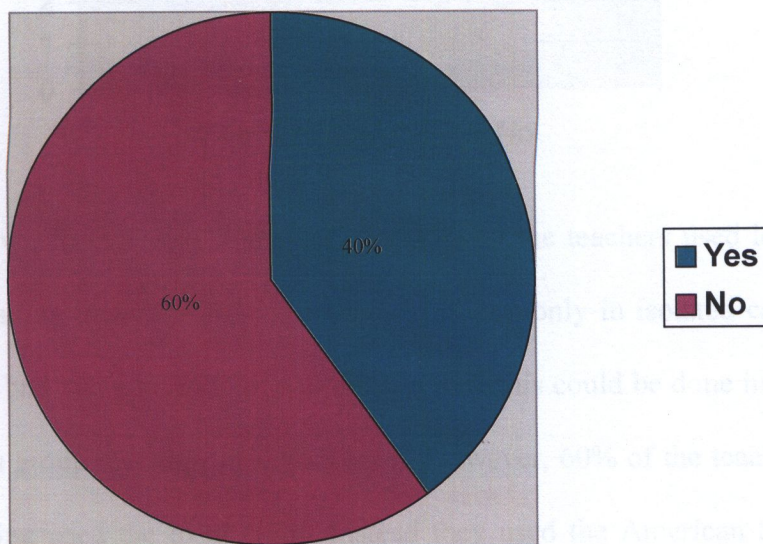
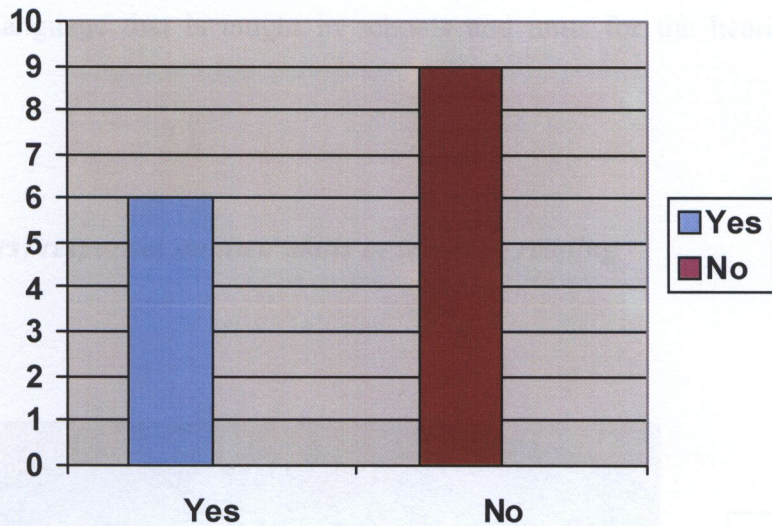


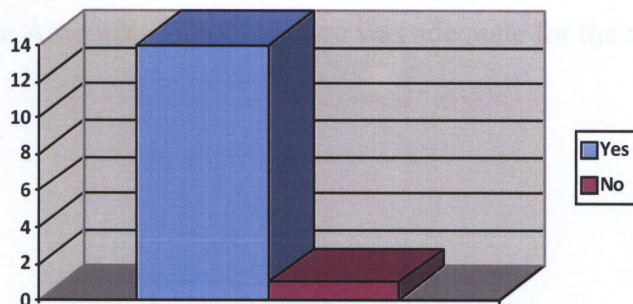
Figure 2 shows that 60% of the teachers do not understand the local signs that the learners with hearing impairments come with from their homes. However, 40% of the teachers indicated that they understood some of them. They said that they used experience (after handling many learners using different signs) to understand some of the signs.

Figure 3: Teachers' responses on their understanding and use of local signs in teaching using NBTL



The study as shown from Figure 3 showed that 40% of the teachers used local signs to teach reading using the NBTL course. This was only in isolated cases where the school had taken an initiative to discuss how this could be done in the INSET as well as group meetings at school level. However, 60% of the teachers reported not having used the local signs; instead they used the American Sign Language which is taught as a universal language in all the schools and units for the hearing impaired in all the schools.

Figure 4: Teachers' responses on the effectiveness of NBTL course in teaching reading



The study showed that more than 93.3% of respondents indicated that the improved reading levels of the Grade One hearing impaired were not as a result of the approach using local signs, but that the pupils learnt to read using the American Sign Language that is taught in schools and units for the hearing impaired.

Figure 5: Teachers; responses on their skills in teaching reading

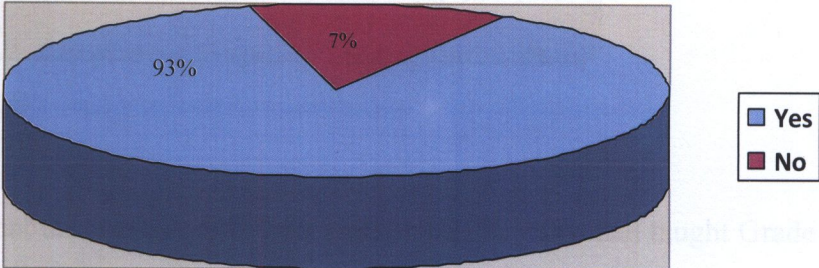


Figure 5 shows that 93% of the teachers had adequate skills in ASL to teach the hearing impaired learners reading but had found difficulties to teach reading to hearing impaired using the NBTL course. Of these teachers 7% stated that they did not have the skills. When head teachers were interviewed, they explained that the teachers did not express problems in teaching reading using sign language because the training in American Sign Language was adequate for the teachers.

Figure 6: Teachers' responses on the use of the New Breakthrough Kit

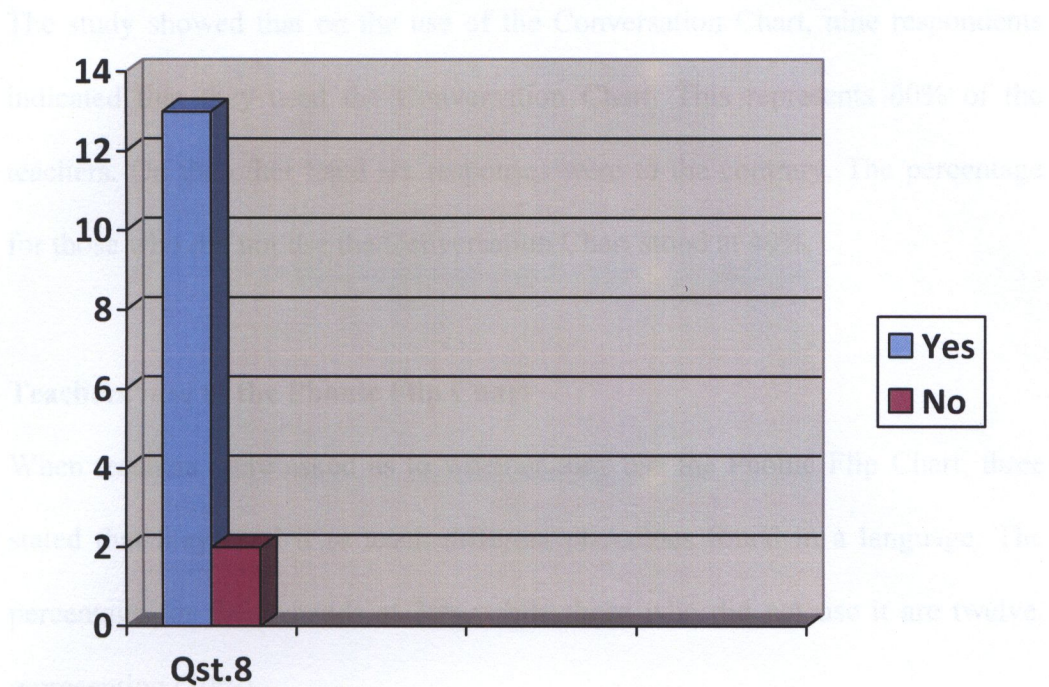


Figure 6 shows that thirteen out of fifteen teachers (87%) who had taught Grade One before and those that are currently teaching this grade level have/had problems in teaching hearing impaired learners reading using some of the New Breakthrough Kit which has been highlighted below.

Teachers' use of Sentence Makers and Word Cards

The study revealed that thirteen teachers indicated that they used Sentence Makers and Word Cards. This represents 87% of the total number of respondents while the other two said they did not use the Sentence Cards and Word Cards.

Teachers' use of the Conversation Chart

The study showed that on the use of the Conversation Chart, nine respondents indicated that they used the Conversation Chart. This represents 60% of the teachers. On the other hand six responses were to the contrary. The percentage for those who did not use the Conversation Chart stood at 40%.

Teachers' use of the Phonic Flip Chart

When teachers were asked as to whether they use the Phonic Flip Chart, three stated that they used it to teach different phonemes found in a language. The percentage for these stands at 20% while those who did not use it are twelve, representing (80%).

Teachers' use of Phonemes to teach Reading

When teachers were asked as to whether they used phonemes in teaching reading to the Grade One learners with hearing impairments two responses affirmed that phonemes are used and that they were effective. This represented 13% while thirteen responses showed that phonemes were not used. This represented 87% of the total responses given.

Learners with hearing impairments breaking through to literacy in Grade One

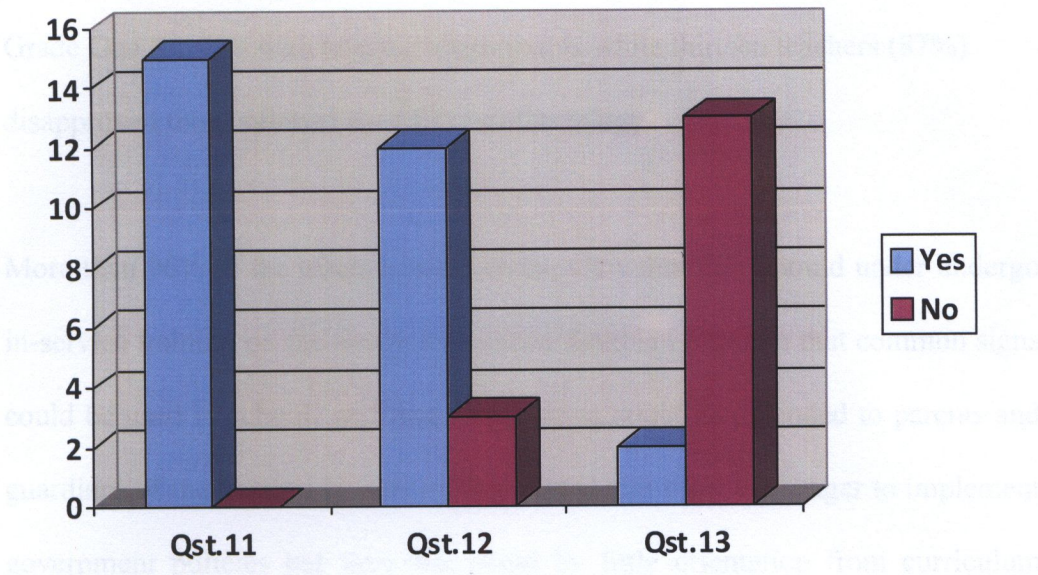
Teachers' responses to whether learners break through

When asked as to whether learners with hearing impairments break through to literacy at the end of Grade One, all the fifteen teachers (100%) indicated that many Grade One learners with hearing impairments failed to break through to literacy. Among the reasons which they gave were that most of the learners learnt at a slow pace and that they found it difficult to cope with academic work. In addition they also found it difficult to cope with NBTL methodology because they still used local signs which they used at home and which the teacher may not understand. Therefore, teachers took time to teach them the new signs to use at school.

Teachers' views on the suitability of NBTL course to teach reading to the hearing impaired

Teachers were asked the following questions: Question 11 on suitability of the NBTL course; Question 12 on difficulties they faced when using the course; Question 13 on whether the course should continue being used

Figure 7: Teachers' responses on the suitability of the NBTL Course



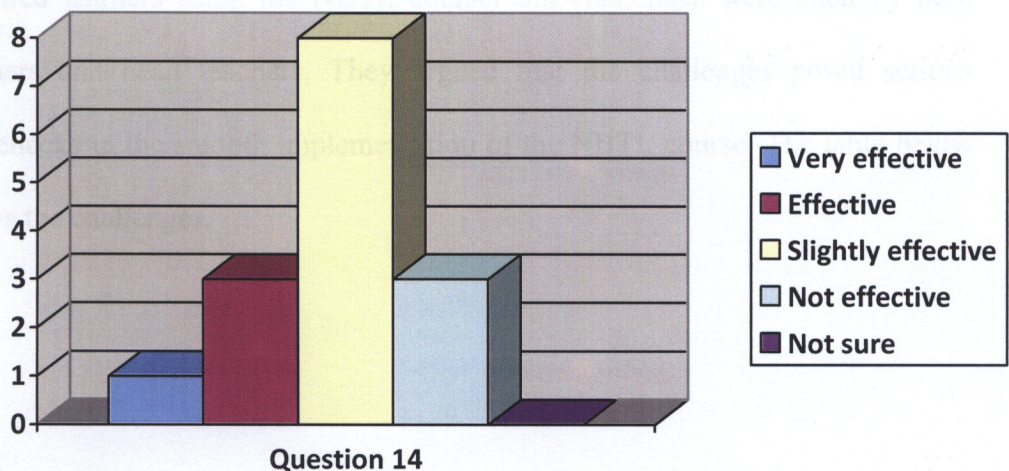
When asked whether they as teachers for the hearing impaired had found difficulties in teaching the hearing impaired using the NBTL course, all the teachers (100%) stated that they had difficulties.

When teachers were asked whether they had difficulties teaching reading using the NBTL course, three teachers indicated that they did not have difficulties teaching reading using the NBTL course for the Grade One learners with hearing impairments. This represents 20% of the teachers as compared to 12 (80%) who indicated that they found difficulties in using the NBTL course to teach reading to Grade One learners with hearing impairments.

When teachers were asked whether the NBTL methodology should continue, two teachers stated that the NBTL methodology should continue to be used for the Grade One learners with hearing impairments while thirteen teachers (87%) disapproved the continued use of the methodology.

More than 96% of the teachers were of the view that they should undergo in-service training on the newly introduced Zambian Signs so that common signs could be used in schools and that this training could be extended to parents and guardians of the hearing impaired. They added that they were eager to implement government policies but were hampered by little orientation from curriculum specialists who initiated the programmes at both pre-service and in-service levels.

Figure 8: Teachers' responses on their effectiveness in using the NBTL course



Among the teachers, the study showed that only one teacher indicated being very effective in using the NBTL course to teach reading to the Grade One learners with hearing impairment. For the same question three teachers indicated that they were effective. At the same time eight stated that they were slightly effective, whereas another three rated themselves as not effective and no one indicated not sure whether very effective, effective, slightly effective or not effective.

The study showed that eight of the teachers stated that American Sign Language was very effective in teaching reading whereas six indicated that it was effective and slightly effective. Only one indicated not effective.

The study showed that special education teachers from the three different schools faced challenges in using NBTL course. The teachers were asked to write down difficulties that they encountered when teaching reading to deaf and hearing impaired learners using the NBTL course. Six challenges were cited by both teachers and head teachers. They argued that the challenges posed serious bottlenecks in the smooth implementation of the NBTL course. The table below shows the challenges.

Table 5: Challenges teachers face in using NBTL to teach reading to learners with hearing impairments

Challenge	Percentage of teachers	Percentage of head teachers
Lack of understanding of local signs: learners come with different signs when they first come to school	95	78
Completing the sets in all stages in NBTL: Some sections of the daily routine require that the teacher teaches phonemes, meanwhile the hearing impaired have no experience of speech sounds..	80	78
Lack of adequate instructions and teaching resources: training institutions do not provide for methodology on how to teach NBTL using local signs.	96	66
Limitations in sign language of some Zambian Language words: some Zambian Language words do not have specific signs.	60	78
Little time spent on in-service: curriculum specialists had little time to spend on in-	86	78

servicing them on instructional materials concerning new initiatives		
Specialized guidelines: Curriculum specialists did not give specialized guidelines on implementation of NBTL	68	93

CHAPTER FIVE

DISCUSSION OF THE FINDINGS

This chapter discusses the findings on challenges Grade One teachers face when using the NBTL course to teach reading to learners with hearing impairments. The discussion is based on the objectives and research questions which guided the study.

Challenges Grade One teachers face in using the NBTL kit to teach reading to learners with hearing impairments.

This research has shown that learners with hearing impairments have trouble understanding language, and that many have not mastered the grammar or syntax of the English language to the extent that much younger normal hearing learners have. This is supported by Kirk and Gallagher (1986). In addition the study has revealed that the learners do not have uniform skills on the use of local signs. On the part of the teacher the study revealed that they needed adequate skills on the use of the existing local signs to enable them fulfill the requirements in implementing the new trends in teaching and move together with the other teachers in regular schools. The teachers for the hearing impaired who participated in this study indicated that they needed to be equipped with adequate methodology and instructional skills in order to effectively and efficiently handle curricular innovations by the Ministry of Education with confidence. They were

concerned with lacking consultations from them who are on the ground when new trends in teaching are being brought in. They however, appreciated that not all that is brought in is irrelevant for them, but that some ideas that will work so well for the able-bodied learners may not easily be implemented and workable for the hearing impaired.

Teachers felt that they needed training in both technical skills and social skills which would help them as they handle pupils that are coming into school for the first time to communicate more easily. According to findings from teachers they stated that INSET activities were helpful because they enabled teachers to share ideas on how best to make modifications in their teaching so that they suit the learners with hearing impairments.

Another area where teachers felt challenged was that some words that are taught to children have no signs while others have similar signs, such as *'have/has/had'* but written differently. This therefore, poses a big challenge to the teacher either to find a sign for it and in some cases teachers omitted those words making it difficult to construct a sentence using the Sentence Makers and Word Cards. It therefore means that it will become difficult for the learners to construct the sentence because they have not found a sign for that particular word.

The other area of concern that teachers for the hearing impaired showed much concern was that they did not use the Phonic Chart. This chart was already

explained earlier. It was meant to teach learners different sounds of words. Some learners with hearing impairments have never acquired any spoken language, hence fail to relate things. The teachers did not use this one because the hearing impaired had no speech sound at all to help them learn to read. They read using different hand shapes. The methodology did not provide for them from the curriculum developers on how to go about using the Phonic Chart. As a result of this the phonic kit becomes irrelevant for the learners with hearing impairments.

Furthermore, the study showed that schools and units for the hearing impaired were not using local signs as recommended methodology on initial literacy because they were not common among the learners with hearing impairments. Even when there is a *Zambian Sign Language Dictionary* teachers had not yet started using the *Zambian signs*. One of the reasons teachers gave was that the *Zambian Sign Language Dictionary* had not yet been incorporated for use by the Ministry of Education. The teachers for the hearing impaired are wondering why all the good efforts and intentions were not being considered.

The study has also showed that the training package for the teachers of the hearing impaired did not address the aspect of *New Breakthrough to Literacy*, making it difficult to integrate the local signs with the *American Sign Language* when implementing the recommended course. This difficulty to integrate local signs with *ASL* has created a gap between what the teachers practice and what they were trained to teach in reading. The training of teachers for the hearing

impaired is in American Sign Language and they go out to teach reading using the American Sign Language. The study indicated that hearing impaired children learn to read at Grade One in the American Sign Language and does not take into account the local signs that the hearing impaired learners use in their homes. In order for New Breakthrough to Literacy to be meaningful in the schools and units for the deaf, the feelings and opinions of and teachers must be considered. In this way, the hearing impaired will successfully participate in NBTL course together with the able bodied as planned by government.

This study has shown that when using the NBTL course the teachers did not use the child-centered approach. Instead, teachers in most cases provided for the sign that was needed for a particular word or sentence in order to go through the stage of word recognition and sentence building. This should not have been the case because the learners needed to recognise the word and build a sentence.

This study has also shown that in most cases teachers had a challenge of the availability of teaching resources for use, especially when certain programmes are being introduced. In this study teachers needed other resource materials to support the teaching of reading using the NBTL kit. Sometimes, even the orientation on how the teaching resources should be used is inadequate. It therefore, showed that training for teachers of the hearing impaired should be recast in certain cases to meet relevance of methodology and should be based on a system of identified needs.

Whether Grade One learners with hearing impairments break through to literacy in year one.

The study has shown that most of the learners with hearing impairments fail to break through in reading at the end of the first year in school. Some of the reasons teachers gave were that they are slow in learning following the stages of the course. At times the teacher may not find the hand shape for a certain word. When this happens the learner is delayed in making a word or sentence. This is the same for practicing speech sounds. The teacher is forced to omit that part which is relevant for the learner without hearing impairments.

In addition, there is also a combination of American Signs when the teachers teach. This is especially so when the teachers experience numerous challenges. This slows down the level of learning to read. Hearing impaired learners indicated that their successes in reading are not as a result of learning using the NBTL, but because of American Sign Language.

Teachers' views on suitability of the NBTL course for teaching reading to Grade One learners

In this study teachers have shown that NBTL is not a suitable course to use in teaching reading to the hearing impaired learners. They stated that even if the methodology is very good for learners with normal hearing it does not work well

in certain areas for learners with hearing impairments. The study also showed that the teachers who participated stated that the hearing impaired improved in reading not because of the new approaches to teaching of NBTL but because of the ordinary methodology from colleges of education based on the use of American Sign Language.

In addition, the teachers who participated in this study stated that they have very little time to spare other than in class where they teach children to effectively read. They indicated that outside teaching time they were involved in other extracurricular activities such as sports, production unit, clubs and other responsibilities that they were given by the school and should carry out effectively. In most cases they have more than one responsibility hence leaving very little time to meet pupils for remedial teaching.

CHAPTER SIX

SUMMARY, CONCLUSION AND RECOMMENDATIONS

This chapter covers the summary of the study, conclusions that are drawn from the summary and recommendations.

Summary

The aim of this study was to find out the challenges that teachers face in using the New Breakthrough to Literacy course to teach reading to Grade One learners with hearing impairments. The following objectives guided the study: To find out the challenges Grade One teachers of the hearing impaired face in using the New Breakthrough To Literacy course kit for teaching reading to Grade One learners with hearing impairments; to find out whether learners with hearing impairments break through to literacy in Grade One; and to find out teachers' views on the suitability of NBTL course methodology for teaching reading to Grade One learners with hearing impairments.

In order to achieve the above stated objectives, respondents were purposively sampled and were drawn from selected schools and units for the hearing impaired. Primary information was gathered using questionnaires for teachers of the hearing impaired for the selected schools and units.

The study was both qualitative and quantitative in nature as it captured views and experiences of respondents from which numerical figures were derived. The content analysis method was used to analyze the data.

The study found that the major challenges that teachers faced in using the NBTL course to teach reading were that local signs that the children come with to school when they are being introduced to reading were not similar such that teachers do not understand them and learners themselves, making it difficult for teachers to apply the NBTL methodology. The other challenge was that they do not complete the sets in all the stages like the so called normal since they learn at a slower pace. The study also revealed that there aren't adequate instructions and teaching resources that are needed to sufficiently teach reading to learners with hearing impairments to meet demands of new initiatives. This should also include specialized guidelines from the Curriculum Development specialists. It came out also that the vocabulary in the NBTL course has limitations in sign language of some Zambian Language words making it difficulties for teachers to teach.

Arising from the findings of this study, various recommendations have been made, among which are that teachers for learners with hearing impairments should hold regular training workshops to discuss on how some aspects such as NBTL can be best implemented; institutions+ offering special education should link their courses to the school curriculum.

Conclusion

It is evident from the findings of this study that Grade One teachers of learners with hearing impairments face many challenges in using the NBTL kit. The challenges range from different local signs which children bring from their homes and the difficulties teachers find in using one of these. Instead they are forced to use ASL which is unsuitable for this methodology. As a result of this difficulty, Grade One learners with hearing impairments find it difficult to break through to literacy in year one. Teachers expressed doubt on the sustainability and effectiveness of the NBTL course for teaching reading to Grade One learners with hearing impairments.

All in all, the study has revealed a number of challenges more especially the fact that the course has limited sign language words being used, change of signs from home to school; teachers sometimes have no knowledge of some signs for certain words.

Recommendations

In view of the findings, the following recommendations were proposed:

- (i) Teachers in schools and units for the learners with hearing impairments should hold regular training workshops to discuss on how some aspects such as NBTL can better be integrated in the existing curriculum;

- (ii) Head teachers should organise regular in-house workshops to train teachers for the learners with hearing impairments on the new and challenging techniques in teaching and learning.

- (iii) Institutions offering special education should link their courses to the school curriculum. Teachers for learners with hearing impairments should know what the objectives of their institutions are following the initiatives that government has based on the school curriculum. It is also important for the training package to be revisited from time to time to ensure the relevance and appropriateness that will benefit hearing impaired in form of positive change in attitudes, skills, values and knowledge.

- (iv) The Ministry of Education should implement the recommended Zambian Sign Language in all schools and units for the hearing impaired so that the teaching of reading in local signs to Grade One hearing impaired can be a reality. This would also minimise the trial and error method being employed by most of the teachers in these schools and units.

- (v) The Curriculum Development Centre subject specialists should introduce the use of pictorial books with signs.

- (vi) Schools to explore the use of reading equipment, such as projectors when teaching the hearing impaired learners. This is where the teacher displays a sign that the learners need to learn representing a word.
- (vii) Curriculum Development Centre should make use of the *Zambian Signs* in schools and units for the hearing impaired introduced by the Zambia National Association for the Deaf (ZNAD) in implementing the NBTL course. Appendix 5.
- (viii) In addition, full participation of school head teachers for the hearing impaired in the new programmes for teachers, which are based on teaching methodology and institutional needs, will help them to understand better the challenges and successes that the teachers and their pupils face in the processes of teaching and learning.

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Appendix 1: Questionnaire for Teachers

I am a post-graduate student of the University of Zambia. I am carrying out a research to find out from you the challenges you face in using the New Breakthrough To Literacy course to teach reading to Grade 1 hearing impaired learners. The answers which you give will be treated with the utmost confidentiality. They will not be used to injure your reputation nor that of your school.

INSTRUCTIONS

- (a) Do not write your name or any other identity that might reveal your identity.
- (b) For some questions, a list of responses is given. Please put (X) against your answer.
- (c) For the other questions, write your responses on the space provided.
- (d) Please do not leave any question unanswered.

1. Your Details

Age: _____ Sex: _____ Highest Qualification: _____
College/University: _____
Years of Service: _____ Grade now Teaching: _____
Current position: _____
Name of School: _____
District: _____ Province: _____

2. Have you ever taught a Grade One class for the hearing impaired before handling this Grade one class?

Yes [] No []

3. Do Grade One hearing impaired learners use similar signs?

Yes [] No []

4. Are there any local signs which the hearing impaired use that are similar?

Yes [] No []

5. Are you able to understand the signs learners come with from their homes?

Yes [] No []

6. Were you trained in teaching hearing impaired children reading skills?

Yes [] No []

7. Were you trained to use the New Breakthrough To Literacy (NBTL) course?

Yes [] No []

8. Do you use Sentence Makers and Word Cards, Conversation Chart and the Phonic Flip Chart at Stage 1 to teach learners with hearing impairments learners how to read?

Yes [] No []

Give reasons for your response

9. Is the use of phonemes effective in teaching reading to Grade One deaf and hearing impaired learners?

Yes [] No []

Give reasons for your response.

10. Do some Grade One learners with hearing impairments fail to breakthrough in reading?

Yes [] No []

Give reasons why.

11. Is NBTL approach working well for the hearing impaired children?

Yes [] No []

Give reasons for your response.

12. Have you found difficulties teaching reading using the NBTL course to Grade One learners with hearing impairments?

Yes [] No []

If Yes, what are they?

13. Should teachers for the hearing impaired use the NBTL methodology?

Yes [] No []

Give reasons why.

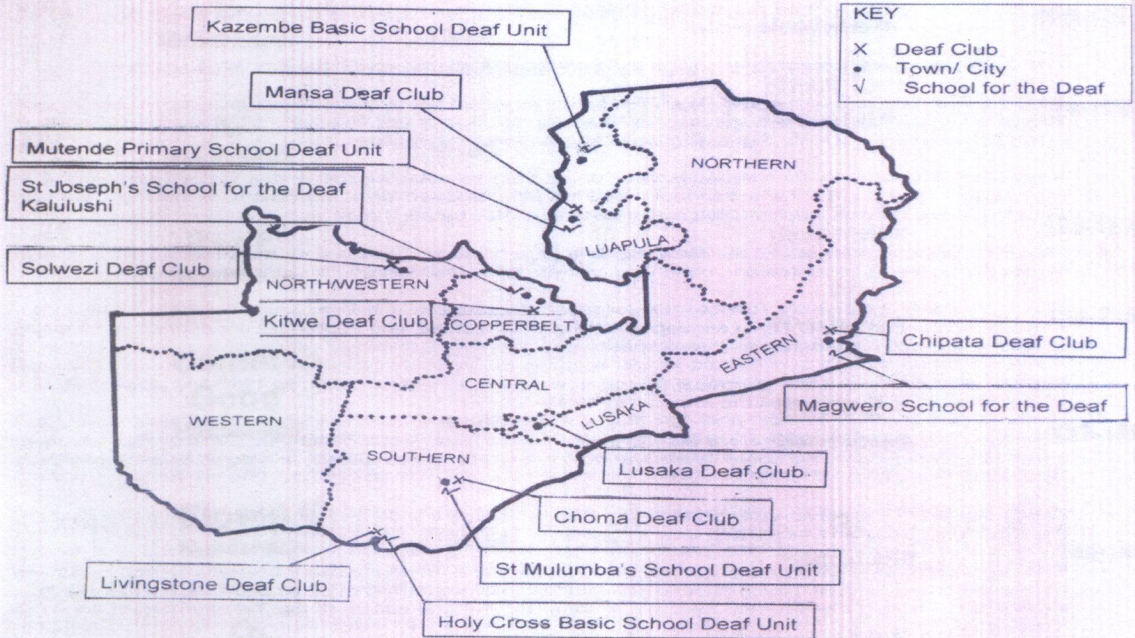
14. Your effectiveness in using NBTL to teach deaf and hard of hearing Grade One learners to read

- (i) Very effective []
- (ii) Effective []
- (iii) Slightly effective []
- (iv) Not effective []
- (v) Not sure []

15. What are some of your suggestions for effective teaching of reading to Grade One hearing impaired learners using the NBTL course?

Appendix 2: Map of Zambia where signs were collected by ZNAD

THE MAP OF ZAMBIA BELOW SHOWS SELECTED AREAS WHERE SIGNS WERE GATHERED

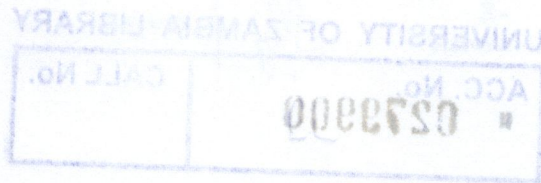


We wish all the users of this dictionary all the best.

Andrew. W. Longwe
SL Research Officer.





















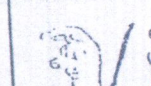
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Appendix 3: Zambia proposed visual hand shapes order

**ZAMBIAN PROPOSED VISUAL HANDSHAPE ORDER
IN THIS DICTIONARY**

Handshape	Name	Page	Handshape	Name	Page
	S- Handshape	1-19		P- Handshape	111-118
	E- Handshape	20-22		D- Handshape	120-123
	A- Handshape	23-40		Bent L- Handshape	124-129
	Flat E' Handshape			L- Handshape	130-133
	Common Good' Handshape	41-54		N- Handshape	134-136
	Closed G- Handshape	51-54		Bent 2- Handshape	137-139
	Q- Handshape	55-56		R- Handshape	140-146
	G- Handshape	57-71		H/U- Handshape	147-155
	X- Handshape	72-81		2/V- Handshape	156-163
	I- Handshape	82-108		Combined 3 Handshape	164-166
	K- Handshape	109-110		Bent 3- Handshape	167-169
				3- Handshape	170-171