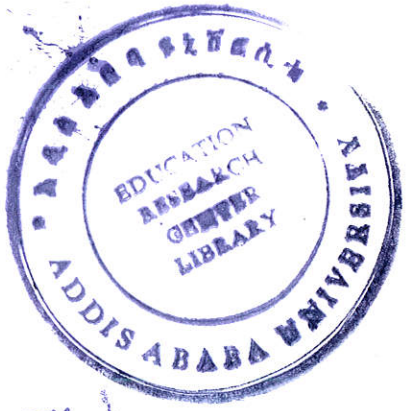
Amharic Reading Comprehension Skill of 5th Grade, Pre- lingual Deaf Students

A THESIS SUBMITTED TO THE SCHOOL OF GRADUATE STUDIES OF ADDIS ABABA UNIVERSITY IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE DEGREE MASTER OF ARTS IN SPECIAL NEEDS EDUCATION

BY
HANNA AFEWORK



July, 2010
Addis Ababa

Acknowledgements

Thank you GOD for the garden you gave me when all I asked for was a flower.

First and foremost I want to thank my advisor Ato Alemayehu Teklemariam for his friendly and polite approach and for the critical comments he has given me with strong enthusiasm through out the research and through out my stay in the University.

I would like also to thank my friend Dr. Katherine Simpkins for her material, moral and psychological support she has given me through out my stay in the university. THANK YOU Kathy.

I would also like to thank my beloved husband Ato Seyoum Lingerih for his moral support and encouragement. I am also thankful for my dearly loved mother, father and brothers.

I would also like to thank Addis Ababa University for financing my study.

Last but not least I would like to extend my gratitude to all my respondents of the study for giving their honest responses during the data collection.

Table of Contents

Lists of Tables

Table No **Page**

Acronyms and Abbreviation

ASL - American Sign Language

SE - Signed English

DHH - Deaf and hard of hearing

Abstract

In this study, Amharic reading comprehension of pre- lingual deaf grade 5 students in Addis Ababa, found in four schools, is examined along with their word identification. The reading comprehension and word identification of 56 pre- lingual deaf students between 11 and 17 years of age was examined. For the purpose of the study, two word identification tests and one reading comprehension test was designed and administered for the participants. Interview schedule were also designed and administered for the four schools grade 5 Amharic teachers. Classroom observation sessions were also conducted to triangulate the data obtained from the tests and the interview schedule. The data were analyzed statistically and they revealed the reading comprehension scores of pre- lingual deaf students are poor. The word identification scores of the pre- lingual deaf students, however, were good. Although reading comprehension and word identification appear to be related, this relation does not completely explain the comprehension difficulties encountered by deaf students. Additional factors are required to explain deaf student's difficulties with reading comprehension. This study also brought out there is no significant differences between age differences of the deaf students regarding to word identification and reading comprehension. It is also seen that there is no significant differences between the severely and profoundly deaf students concerning to their word identification and reading comprehension skill. The findings also suggest that there are no significance differences between male and female pre- lingual deaf students regarding to their word identification and reading comprehension skills.

CHAPTER ONE

1. Introduction

1.1. Background of the Study

The general objective of this study was to examine reading comprehension skills in the Amharic language of pre- lingual deaf students enrolled in grade five. More specifically, the study focused on two components of reading; decoding skill which referred to efficient word recognition and linguistic competence skills which in the present study referred to finding out the main idea of a passage and the way these two skills related to reading comprehension skills.

Amharic is the official working language of the government of the Federal Democratic Republic of Ethiopia. Ethiopia is divided into nine regions, each with its own national language; however, Amharic is the language used for countrywide communication. Amharic is spoken by about 30 million people as a first or second language, making it the second most spoken Semitic language in the world (after Arabic), believed to be the second largest language in Ethiopia (after Oromo), and possibly one of the five largest languages on the African continent (Atelach, Lars, & Mesfin 2003).

Written Amharic uses a unique script originating from the Ge'ez (an ancient Semitic language) alphabet. In modern Ethiopic script each syllograph (syllable pattern) comes in seven different forms (called orders), reflecting seven vowel sounds. The first order is the basic form;

the others syllographs are derived from it by modifications indicating vowels. There are 33 basic forms, giving 7*33 syllographs, or *fidels* (Amsalu and Gibbon, 2005; Fissaha and Haller, 2003; Bayou, 2000 cited in Saba and Gibbon, 2005). There are no different representations of upper and lower cases; hence there is no special marking of the beginning of a sentence and first letter of names or acronyms. Words are separated by white space. The streams of characters, however, are written left-to-right deviating from its relatives Hebrew and Arabic (Saba and Gibbon, 2005).

Children who are pre lingually deaf acquire language in different ways, depending on their home environment. These children have lost their hearing prior to acquiring spoken language. Children who are deaf and born to hearing parents generally start learning language later, and with less consistent and useful experiences. Such children do not share a native language with their family. Their hearing loss, on average, is not identified until their first birthday or later (Marshark 2001). These children are exposed to less linguistically rich environments than deaf children of deaf parents or hearing children of hearing parents. Because of these differences in language exposure, children who are deaf in homes with hearing caregivers commence their language learning at a later age than their peers (Marschark 2001).This condition is more pervasive in the Ethiopian conpassage in which parents and the society at large attribute deafness to an evil spirit or punishment or curse from God. Because of these beliefs, large numbers of deaf children are not exposed to any kind of meaningful language. In the researcher's experience, parents and the society at large assume Sign language is not a true language and they lack the interest to acquire the language and to communicate with deaf children. This in turn, affects the children's development of a meaningful language and hinders their ability to communicate with their parents, peers and the society at large.

There is also no appropriate method to identify, assess and to intervene deafness in Ethiopia. Since this hidden impairment often goes undetected, a large number of deaf children seem to be recognized and supported little or not, by parents, teachers, peers and the society in Ethiopia (Ababa Hagos, 1996).

Learning to read is one of the greatest accomplishments in childhood because it is the foundation for learning and academic achievement. For born-deaf people to function in a hearing world, they must learn to read and write spoken language - a language they have never heard. Reading a spoken language is not based on sight alone - it is based on sounds. When hearing people learn to read, they "sound-out" the letters in each word. Profoundly-deaf people cannot "sound-out" words. They must learn to read from rote-memory, without sound connection.

While pre- lingual deaf children are in the process of acquiring spoken or sign language, they also face the task of learning to read. Their lack of a strong basis in spoken or signed language makes it difficult for them to learn to read with meaning (Wauters 2005).

This researcher was unable to locate any studies in Ethiopia that focused on Amharic reading comprehension for pre- lingual deaf or the deaf in general. In the United States and Great Britain, studies of reading with deaf children have shown that deaf children lag far behind their hearing peers in reading comprhension (Allen,1986; Conradi,1979; Holt,1994; Karchmer & Mitchell,2003; Waufers, Van Bon & Tellings,2006 cited at Marshark 2001). The reading difficulties that pre- lingual deaf children encounter are frequently related to delays in the acquisition of spoken language. Reading is a process that is dependent on the language that

provides the basis of the writing system, especially during early stages of acquisition (Perfett and Sandak, 2000).

According to the Simple View of Reading (Hoover and Gough, 1990), reading comprehension consists of two components: decoding and linguistic comprehension. Decoding refers to efficient word recognition. Linguistic comprehension is "the ability to take semantic information at the word level and derive sentence and discourse interpretations" (Hoover and Gough, p.131). From such a perspective, reading difficulties can arise from decoding problems, comprehension problems, or a combination of both. This research aimed at studying the two components of reading; decoding and linguistic comprehension.

According to Stothard and Hulme (1996), decoding and linguistic comprehension are both necessary to read but depend on different underlying skills. The ability to decode is closely related to phonological skill while linguistic comprehension depends upon general language skill.

Linguistic comprehension is a complex ability comprising various skills and forms of knowledge. The present study of the role of linguistic competence in reading comprehension concentrated on one central component of this competence: understanding the main idea of a passage.

Acquiring word meanings through linguistic information demands access to language. For many deaf children of hearing parents, language access is limited in the early years of life, because spoken language is inaccessible and sign language is not available. This limited access to language makes acquiring word meanings through linguistic information more difficult for

deaf children than for hearing children. Therefore, deaf children's knowledge of these word meanings will be less comprehensive, which makes understanding passages containing such words relatively difficult.

1.2 Statement of the Problem

Learning to read is a challenge for many children, but especially for many pre- lingual deaf children due to their limited experiences with, and access to, spoken language. Many pre-lingual deaf students have severe difficulty acquiring literacy and developing reading comprehension beyond an elementary school level. Profoundly deaf students often develop lifelong reliance on the short hand of sign language (i.e., where one sign may represent an idea that would require several words) to communicate. Often they have a difficult time catching on to the subtleties of the written word, which can be as hard to pick up as a second language.

While reading is a prerequisite for the academic success of the hearing child, it is even more critical for the deaf child, for whom printed communication is the most consistent and clear source of information. Other forms of communication whether gestural or oral, are open to a high level of distortion, through ambiguity, confusion, and misinterpretation. Thus, the deaf child is doubly penalized if he or she does not progress in reading; his knowledge of the world in general suffers as well as the more circumscribed work he or she does in school (Lillian & Restaino, 1990).

Students with hearing impairments enter the classroom with diverse skills in Amharic language literacy. Some students especially hard of hearing and post lingual deaf students, may master the content of reading a teacher covers, while others especially pre- lingual deaf students may enter the classroom with special needs that require review of basic skills in reading. Due to

these variations, it is necessary to examine pre- lingual deaf students' Amharic reading comprehension skill along with word recognition and linguistic comprehension to better understand their learning needs.

This research was inspired by the researcher's previous experience and the theoretical assumption of scholars. The main intention of this study was to examine grade five pre- lingual deaf students' Amharic reading comprehension by assessment of their decoding and linguistic comprehension skills and to identify areas of difficulty in reading. The study was conducted in Alpha, Mekanisa, and Victory Schools for the Deaf and Minilik Primary School Unit for deaf children. The study addressed the following research questions.

1. Do pre- lingual deaf students identify real words from pseudo or meaningless words?
2. Are pre- lingual deaf students able to identify the main idea of a passage?
3. What are the difficulties pre- lingual deaf students encounters when reading? Is the difficulty in decoding, linguistic comprehension or both?
4. Are there any significant differences between girls and boys on reading comprehension skills?
5. Is there a significant difference between ages?

1.3. Significance of the Study

This research may contribute by identifying and assessing the difficulties encountered by pre- lingual deaf students in Amharic reading comprehension. As a result parents, teachers, and other professionals may create better ways of meeting the literacy needs of pre- lingual deaf students.

More specifically, the significance of this study will be to:

1. Provide information to educators about reading comprehension in Amharic of pre-lingual deaf students.
2. Since a study of this kind is scanty, it will contribute to the existing literature at least in Ethiopian conpassage.
3. The study will help as stepping stone for those interested in the field and for those who would like to make an in-depth study in the future in the same topic.

1.4. Conceptual Definition of Terms

Pre- lingual deaf: an individual who is born deaf or who becomes deaf prior to the acquisition of spoken language.

Post lingual deaf: a person who becomes deaf after acquiring spoken language

Hard of Hearing: a person who has a partial decrease in the ability to detect or understand speech sounds.

Reading: Understanding the meaning of written language.

Reading Comprehension: The ability to derive meaning from written words, particularly that intended by the author.

Decoding: efficient actual word identification from pseudo word.

Linguistic Comprehension: the ability to take semantic information at the word level and derive sentence and discourse interpretations

CHAPTER TWO

2. Review of Related Literatures

2.1. Language

Language is a system for encoding and decoding information. In its most common use, the term refers to so-called "natural languages" i.e., the forms of communication considered peculiar to humankind. In linguistics, the term is extended to refer to the human cognitive facility of creating and using language. Essential to both meanings is the systematic creation and usage of systems of symbols, each referring to linguistic concepts with semantic or logical or otherwise expressive meanings (Cook 1997).

Language has been called the symbolization of thought. It is a learned code, or system of rules that enables us to communicate ideas and express wants and needs. Reading, writing, gesturing and speaking are all forms of language (Bowen 1998).

Language falls into two main divisions. Receptive language involves the understanding of what is said, written or signed. Expressive language includes speaking, writing or signing (Bowen 1998).

The American National Institute on Deafness and Other Communications Disorders defines speech and language as a tool that humans use to communicate or share thoughts, ideas, and emotions. Language is the set of rules, shared by the individuals who are communicating, that allows them to exchange those thoughts, ideas, or emotions. Speech is talking, one way that

a language may be expressed. Language may also be expressed through writing, signing, or even gestures in the case of people who have neurological disorders and may depend upon eye blinks or mouth movements to communicate (http://www.nidcd.nih.gov/health/voice/speechandlanguage.asp).

2.1.1. Language Development

Language development is the process by which children come to understand and communicate language during early childhood. Children's language development moves from simple to complex. Infants start without language. Yet by four months of age, babies can read lips and discriminate speech sounds (Buckley 2003).

Usually, language starts off as recall of simple words without associated meaning, but as children grow, words acquire meaning, with connections between words being formed. As a person gets older, new meanings and new associations are created and vocabulary increases as more words are learned (Buckley 2003).

Infants use their bodies, vocal cries and other preverbal vocalizations to communicate their wants, needs and dispositions. Even though most children begin to vocalize and eventually verbalize at various ages and at different rates, they learn their first language without conscious instruction from parents or caretakers. In fact research has shown that the earliest learning begins in the uterus when the fetus can recognize the sounds and speech patterns of its mother's voice (Oates and Andrew, 2004).

The most intensive period of speech and language development for humans is during the first three years of life, a period when the brain is developing and maturing. Speech and language skills appear to develop best in a world that is rich with sounds, sights, and consistent exposure to the speech and language of others (Marshark 2001).

There is increasing evidence suggesting that there are critical periods for speech and language development in infants and young children. This means that the developing brain is best able to absorb a language, any language, during this critical period. The ability to learn a language will be more difficult, and perhaps less efficient or effective, if these critical periods are allowed to pass without early exposure to a language (Marshark 2001).

From birth up to the age of five, children develop language at a very rapid pace. The stages of language development are universal among humans. However, the age and the pace at which a child reaches each milestone of language development vary greatly among children. Thus, language development in an individual child must be compared with norms rather than with other individual children. In general girls develop language at a faster rate than boys. More than any other aspect of development, language development reflects the growth and maturation of the brain. After the age of five it becomes much more difficult for most children to learn language (Buckley 2003).

Receptive language development (the ability to comprehend language) usually develops faster than expressive language (the ability to communicate). Two different styles of language development are recognized. In referential language development, children first speak single words and then join words together, first into two-word sentences and then into three-word sentences. In expressive language development, children first speak in long unintelligible

babbles that mimic the cadence and rhythm of adult speech. Most children use a combination of these styles (Oates and Andrew, 2004).

Beginning signs of communication occur during the first few days of life when an infant learns that a cry will bring food, comfort, and companionship. The newborn also begins to recognize important sounds in his or her environment. The Parent's voice is the first and most important sound. As they grow, infants begin to sort out the speech sounds (phonemes) or building blocks that compose the words of their language. Research has shown that by six months of age, most hearing children recognize the basic sounds of their native spoken language (Marshark 2001).

2.1.2. Language development in Deaf Children

Children who are pre- lingual deaf acquire language in different ways, depending on the home environment. These children have lost their hearing prior to acquiring spoken language. Children who are deaf and born to hearing parents generally start learning language later, and with less consistent and less useful experiences. Such children do not share a native language with their family. Their hearing loss, on average, is not identified until their first birthday (Marshark 2001). These children are exposed to less linguistically rich environments than deaf children of deaf parents or hearing children of hearing parents. Because of these differences in language exposure, children who are deaf in homes with hearing caregivers commence their language learning at a later age than their peers (Marschark 2001).

Some commonalities exist in language development between students who are deaf and students who are hearing. Language development is contingent on frequent, consistent, and

accessible communication. These factors are the same for children whose parents hear, as well as children whose parents do not hear. The mode of communication (signed or spoken language) is not a factor (Marschark 2001).

In families where parents are learning a new language, such as American Sign Language (ASL) or Signed English (SE), with which to communicate with their child, children have a tendency to acquire inconsistent or incorrect linguistic input (Kuntze 1998; Marschark 2001). This early language deprivation explains the troublesome statistic that 90 percent of deaf children born into homes with only hearing caregivers experience delays in language acquisition compared to hearing children in hearing families and deaf children in deaf families (Kuntze 1998; Meier and Newport 1990). Because most children who are deaf do not have deaf parents (Moores 2001), it is not surprising to see language delays in these children. Many actually are language deprived until their first school exposure, which could be their first experience with a competent language model (Marshark 2001).

Children, who are born deaf, have restricted access to the spoken language as a result of their hearing impairment. They learn mainly through the visual channel; for example, through speech reading or gestures. Antia and Levine (2001) point out that learning a spoken language tends to be a slow process for pre- lingual deaf children and that this requires exceptional efforts by the child and his or her parents. As a consequence, the spoken language development of pre-lingual deaf children is usually delayed when compared to hearing children.

For hearing children, language is accessible from birth on. They gradually acquire language through the interaction with others. For deaf children, language is usually not immediately accessible. Most deaf children have hearing parents who, after having discovered

that their child is deaf, have to decide which language they are going to use in communication: spoken language or sign language. Whichever choice is made, the deaf child's language acquisition will be delayed (Marshark 2002). Spoken language is not accessible for the deaf child until he or she acquires some skill in speech reading and even then only a reduced amount of verbal information can be perceived. Sign language is not immediately available either, because parents will first have to acquire this language themselves before being able to use it in communication with their deaf child. These language acquisition differences between deaf and hearing children most probably lead to differences in reading comprehension. Most deaf children will have a less solid language base when they start reading (Wauters 2005).

A study by Alemayehu (2000a) entitled "Communication Experiences of pre- lingual Deaf Adolescents", revealed that language and communications of the sampled pre- lingual deaf adolescents were found to be extremely poor and mainly based on nonverbal cues as a result of inaccessibility of the language environment and lack of early intervention.

2.1.3. Language and Literacy Development in Deaf Students

Language development plays an important role in a student's literacy learning. Children who are deaf and hard of hearing (DHH) learn to read across a continuum of stimulus sources. Some children have sufficient residual hearing that with powerful amplification they are able to develop literacy through the auditory pathway (Izzo, 2002). Some require visual support from English based sign systems (Luetke-Stahlman and Nielson, 2003). And still others learn to read English as a second language based on competence in their natural language of American Sign Language (Musselman, 2000) or another native language such as Spanish (Musselman, 2000).

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

The adult plays an important role in helping the very young deaf child understand and develop reading skills by being responsive to the infant's or toddler's attempts to communicate, and by providing a rich language environment. Literacy skills are promoted and supported through play, reading books, scribbling, back-and-forth communication, and interactions with adults (Rottenberg and Searfoss, 1992). A solid foundation in language development in the early years before a child enters school will promotes success in reading and writing in the future. (Moores 2001) Young children who have rich language and literacy experiences are more likely to be successful in learning to read independently.

2.2. Reading

Reading is one of the most complex cognitive skills that humans learn. It is supported by multi- modal networks uniting motor systems, language systems, semantic systems and reasoning systems (Goswami, 2008,p.73).

Reading is a complex cognitive process of decoding symbols for the intention of deriving and constructing meaning (reading comprehension). It is a means of language acquisition, of communication, and of sharing information and ideas (Miller 2002).

At the most basic level reading is the recognition of words. From simple recognition of the individual letters and how these letters form a particular word to what each word means not only at an individual level, but also as part of a passage (Goswami 2008). In Amharic, as in many other languages, different combinations of the same letters can be used to form different words with completely different meanings. So, the letters አ ኛ ‘ ኛ ስ can make ‘ኛ (he sleeps), and አስ‘ኛ (he makes some other one sleep). Recognition of the actual word is not enough on its own to constitute reading.

2.2.1. Reading Comprehension in Deaf Students

Knowledge and skills of spoken language contribute to reading comprehension and to visual word recognition, two major components of reading competence. It is clear that the development of reading in deaf children without age-appropriate spoken language skills is difficult and slow (Musselman, 2000). Research into the reading comprehension skills of deaf children and adolescents by Vermeulen, vanBon, and Schreuder (2007), shows a limited level of reading comprehension. These researchers further report that the average reading comprehension scores of deaf children and adolescents are “shockingly low” .The average reading comprehension ability for children in the 7–20 year old age range is at a level of first grade in primary education (pp. 284).

Regarding the level of visual word recognition in deaf children there has been different results. Harris and Beech (1998) found that deaf children had lower word identification skills than their hearing peers. In contrast, Burden and Campbell (1994) did not observe any significant difference in word recognition skills between older deaf children and children with normal hearing. The different ages of the children in the samples may have caused this difference. Marschark and Harris (1996), however, found that the mean visual word recognition scores of deaf children in primary and in secondary education were significantly lower than those of their hearing peers, though to a lesser extent than were reading comprehension scores.

Hoover and Gough (1990 cited inVermeulen,vanBon & Schreuder, 2007) stated that reading comprehension was the product of decoding and language comprehension. According to this model, the enhancement of auditory speech perception skills could influence reading comprehension via three routes: via decoding, via spoken language, and via the contribution of visual word recognition to reading comprehension. First, decoding was an important underlying sub-skill for visual word recognition and it was likely to be facilitated by better auditory speech perception. In hearing children, decoding was a process dependent on phonological abilities that pertained to the ability to detect, store, and retrieve the basic sound elements of the spoken language (Vermeulen,vanBon & Schreuder, 2007).

> Access to auditory information will lead to the use of letter to sound correspondences and thus provide a basis for phonological decoding. For deaf children who do not perceive spoken sounds via audition, decoding will be difficult. Although decoding does not uniquely rely on phonological knowledge alone, auditory access to phonological information provides the most efficient way. A higher degree of hearing capacity and better speech intelligibility were found to enhance the ability of deaf children to use

phonological coding"(Marschark and Harris, 1996). As discussed by (Marschark and Harris,1996).

As discussed by Marschark and Harris (1996) some portion of reading difficulties have been attributed to the inability to hear the sounds of spoken and written language, but other language-related components such as vocabulary and syntax influenced reading skills of deaf children as well. Musselman (2000) discussed the important role of vocabulary and syntax in reading comprehension of deaf children. Hence, auditory access to spoken language has been demonstrated to positively influence the development of receptive vocabulary.

Language comprehension was one of the components of reading comprehension. Musselman(2000), argued that after decoding, comprehension of the dialogue in principle relies on the same underlying skills, regardless of whether the dialogue concerned written or spoken passage. He described reading as a derived skill that built upon spoken language, and found that to be the case for deaf readers. Receptive vocabulary knowledge was also reported to be an important factor in reading for hearing children as well as for deaf children (Marschark and Harris, 1996). Musselman (2000) further described the relation between oral language and reading comprehension. He reported that difficulties in storytelling and the inability to detect the structure and main point of an event were likely to be the cause of reading comprehension difficulties. The third factor which influenced reading comprehension was visual word recognition, (i.e., recognition of the printed word), required two types of knowledge, or skill: decoding skills and word-specific lexical knowledge (Gough and Wren, 1998). In the context of decoding, these authors explained that *"in order to recognize a written word, the reader has to*

translate a meaningless set of letters into a recognizable object and locate or activate precisely the right word in the mental lexicon" (pp.286).

Research conducted by Hermans (2007) on the other side suggested that individuals with good signing skills might be better readers than individuals with poor sign language skills. Some researchers suggested (e.g., Hafer and Wilson, 1998) that ASL could 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.

2.3 Decoding Skill

When individuals were involved in decoding they were using symbols to interpret a unit that bore meaning (Beck and Juel ,1995). Various terms have been used to describe the way children come to recognize printed words. Hence, word recognition, word identification, word attack, and sight word recognition are all terms applied to decoding (Beck and Juel, 1995).

Skilled word recognition is simply the ability to rapidly derive a representation from printed input that allows access to the appropriate entry in the mental lexicon. Such recognition, which accomplishes a connection between a graphically based coding of letters (a graphemic coding) and the mental lexicon, allows retrieval of semantic information at the word level (Hoover and Gough, 1990).

Decoding has taken on many meanings in both the word recognition literature and the educational instruction literature. Some researchers use decoding as a synonym for phonics (e.g.

Chall, 1967). Other researchers use the term to describe the conversion of letter strings in to phonetic codes (e.g.Perfetti, 1985). For still others, decoding specifically denotes word recognition that is accomplished through phonological coding (e.g. Gough and Tunmer, 1986). Under the simple view, word recognition is the general term for accessing the mental lexicon based on graphic information, while decoding refers to word recognition accomplished through phonological coding (Thompson, Tunmer and Nicholson, 1992).

The dictionary definition of *code* is "a system of signals used to represent assigned meanings" (Izzo, 2002). Signals can be numbers, dots and dashes, or letters. In themselves these signals are meaningless. They become meaning-bearing units only when an individual knows what meanings can be assigned to the signals. When an individual can apply meaning to signals, that person has learned to decode.

According to Izzo (2002):

> In written alphabetic languages such as English, the code involves a system of mappings, or correspondences, between letters and sounds. When an individual has learned those mappings, that person is said to have "broken the code." Now the individual can apply his or her knowledge of the mappings to figure out plausible pronunciations of printed words.

Studies reported above point to the importance of arranging conditions so that children gain reading independence early. To this end Beck and Juel (1995) put the idea of learning to decode in their summary as follows:

> The task of learning to decode printed words is made easier when the child has certain prerequisite understandings about print. These include knowing that print is important because it carries a message, which printed words are composed of letters, and that letters correspond to the somewhat distinctive sounds heard in a spoken word. Often these

prerequisites develop as a result of a child's having been read to (especially by an adult who has made occasional references to aspects of the print), having attended preschool and kindergarten programs, or having watched instructional television programs .PP-9.

Early attainment of decoding skills is important because this early skill accurately predicts later skill in reading comprehension (Miller, 1997). There is strong and persuasive evidence that children who get off to a slow start rarely become strong readers (Stanovich, 1986).

Early learning of the code leads to wider reading habits both in and out of school (Juel, 1988). Luetke-Stahlman and Corcoran-Nielsen (2003) state that, extensive reading provides opportunities to grow in vocabulary, concepts, and knowledge of how passage is written. They further explained that:

> Children who do not learn to decode do not have this avenue for growth. This phenomenon, in which the "rich get richer" (i.e., the children who learn early to decode continue to improve in reading) and the "poor get poorer" (i.e., children who do not learn to decode early become increasingly distanced from the "rich" in reading ability"PP-12.

2.4. Linguistic Comprehension

Hoover and Gough (1990) describe reading comprehension as the product of written word identification and linguistic comprehension. Studies on written word identification in deaf students show varying results (Burden & Campbell, 1994; Fischler, 1985; Harris & Beech, 1998). Taken together, these studies suggest that word identification problems can explain deaf children's reading comprehension problems only to a minor degree. Limited linguistic comprehension therefore must be the main cause.

Linguistic comprehension is the ability to take lexical information (i.e. semantic information at the word level) and derive sentence and discourse interpretation. Reading comprehension involves the same ability, but one that relies on printed information arriving through the eye (Hoover and Gough, 1990).

Linguistic comprehension refers to the ability to use semantic information at the word level and to derive sentence and discourse interpretations. Deaf students have been found to lag behind hearing students in many factors that are related to linguistic comprehension, such as meta cognitive strategies (Paul, 2003; Strassman, 1997), memory span (Marschark & Mayer, 1998), syntax knowledge (Berent, 1996; Kelly, 1998; Paul, 2003), figurative language (Paul, 2003), and vocabulary size (Kelly, 1996; Marschark, Lang, and Albertini, 2002; Paul, 2003). One aspect of linguistic comprehension is finding out the main idea of a passage.

It is generally agreed by researchers and theorists that the ability to identify and state the main idea is central to construction of meaning (Broek, Lynch, Naslund, Ievers-Landis, & Verduin, 2003; Graesser, Pomeroy, & Craig, 2002; Pressley, 1998; Stevens, 1988; Williams, 1988). In view of the critical role of understanding the main idea, it is hardly surprising that learning to identify the main idea has long been central to the elementary school reading curriculum and beyond (Graves, 1986; Jitendra, Cole, Hoppes, & Wilson, 1998). Moreover, "getting the main idea" has been regarded as a litmus test of successful reading comprehension and, therefore, taught as a major reading strategy to bridge the gap between less able readers and more able readers (Fielding and Pearson, 1994). In other words, the ability to identify the main idea delineates between strong and weak readers (Wang, 2009).

CHAPTER THREE

3. Research Design and Methodology

3.1. The research settings and participants

3.1.1. The research settings

The research setting was four schools in Addis Ababa: Alpha, Mekanisa and Victory School for the Deaf and Minilik Primary School Unit for the Deaf.

3.1.2. Sampling

The participants of this study were grade five students who were born deaf or became deaf prior to acquiring spoken language (Table 1). This grade was selected primarily because students at this grade level were expected to have acquired the basic reading skills that were taught in the primary curriculum. Since the number of students attending grade five in these schools was relatively small, the researcher included all the potential participants. Sampling procedure for this study, therefore, was available sampling. Grade five Amharic teachers in each school were also selected using availability sampling. A total of 56 students, who identified themselves as pre- lingual deaf, participated in this study. The research sample included 18 students (F=10, M=8) from Alpha School, 8 students (F= 7, M= 1) from Victory School, 18 students (F=6, M=12) from Mekanisa School and 12 students (F=5, M=7) from Menilik School.

Table 1 Demographics of students with hearing impairments

Sample	Alpha School for the Deaf	Mekanisa School for the Deaf	Victory School for the Deaf	Menilik School Unit for the Deaf	Total Sample Size
Male	8	12	1	7	28
Female	10	6	7	5	28
Total	18	18	8	12	56
*Age range of participants from 11-17					

a. All participants were pre lingual deaf

The criteria for selection of pre- lingual deaf students for this study was that the researcher believe pre- lingual deaf students have difficulties in mastering the content of reading a teacher intends to cover and have a special need that require review of basic skills in reading.

3.2 Instruments

For the purpose of this study quantitative data gathering method was used as a primary method to collect the data and analysis. As a supplementary data collection, qualitative data gathering method was used. The researcher used three kinds of tests (Three- One Word Identification test, Two- Choice Word Identification test and Finding Main Idea Reading Comprehension test to collect information from the pre- lingual deaf students. Furthermore, semi structured interview schedules with the four schools Amharic teachers were conducted. Systematic observation within the Amharic classrooms provided qualitative data on classroom activities related to teaching and learning decoding skills and reading comprehension.

The researcher used a 5th grade Amharic textbook to collect the necessary information (choose words) for the quantitative data gathering instrument.

The main instruments for data gathering are described below:

3.2.1 Measure of Word Identification

3.2.1.1 Three- One Word Identification test

Three- One Word Identification test (Appendix 1a) was developed with reference to Van Den, Tooren, and Van Eekelen (2000) English silent- reading test. The silent reading test mainly consisted of nouns adjectives, verbs and adverbs and it is restricted to more English familiar words. The pseudo words consisted of non-existent words constructed by taking additional real word and changing its one or more letters.

Three- One Word Identification test consisted of 60 strings: 40 actual words and 20 pseudo words. Similar to the Silent Reading test, the group of actual words consists of nouns, adjectives, verbs and adverbs. All of the actual words were restricted to more familiar words in the grade five Amharic textbook. The group of pseudo words consisted of non- existent words constructed by taking additional actual word and changing its one or more letters. The test involved a word- pseudo word ratio of 2:1. The score for this test is the number of items judged correctly in one minute.

To establish validity the grade five Amharic teachers from each school, a university professor with training and experience in teaching deaf students, and a language expert from linguistic department of Addis Ababa University were consulted in the construction of the test.

A potential disadvantage of the Three- One Word Identification test was that children could underestimate their vocabulary and therefore tend to accept pseudo words as real words. Deaf children in particular might be insecure in their word knowledge. To avoid this problem, an additional word identification test was constructed by the researcher after discussion with the

Amharic teachers, the language expert, and the education expert. The Two- Choice Word Identification test.

3.2.1.2. Two- Choice Word Identification test

The Two- Choice Word Identification test consisted of 40 items, each containing one actual word and one pseudo word. The child read the items column by column and crossed out the pseudo word in each item. The score was the number of items answered correctly in one minute. The actual words are composed of nouns, adjectives, verbs and adverbs and the words are highly frequently used in the Amharic grade five textbook. The pseudo words were derived from the actual words in the same manner as for the Three- One Word Identification test.

3.2.1.3. Finding Main Idea Reading Comprehension test

This test was developed with reference to Getting the Main Idea Around the World test, a subtest of the Reading Comprehension test of World Class Learning materials (2004). The test consisted of 20 reading passages (and a total of three response alternatives for each passage). No time limit was set for completion of the test. The row score on each test was the number of correct responses.

To establish validity the grade five Amharic teachers from each school, the educational expert and the language expert from linguistic department of Addis Ababa University were consulted in the construction of this test.

3.2.1.4 Semi Structured Interview

Interviews with the Amharic teachers were conducted by the researcher. The interviews were conducted in person and were semi-structured. Each interview was approximately 20 to 25 minutes long. The teachers described their opinion of the reading comprehension skills of pre-lingual deaf students in their class. Topics of discussion include the student's skill in word identification, strategies used to improve word identification skill, reading comprehension skill, possible reasons for poor reading comprehension skill, problems faced when teaching reading for deaf students and other related issues (Appendix 3).

3.2.1.5 Systematic Observation

Observation which is a systematic way of watching, recording, describing, interpreting and analyzing events was employed (Patton, 1990; Robson, 1993). classroom observation included items such as Participation in Amharic passage reading, finding the main idea of a passage, word identification skill, difficulties when reading and related issues. Eight (two sessions in each school) - 45 minutes observation inside the classroom were made by the researcher and detailed field note were generated after each observation.

Summing up two word identification test, one reading comprehension test, semi-structured interview schedules and classroom observation were used as data gathering instruments in the entire study.

The statistical software used in the study was SPSS-14 computer software program. The statistical methods used in the analysis of data were mean, standard deviation, percentage, correlation and t-test.

The qualitative data that is obtained about teachers' views of word identification skill of their students, teachers' views of reading comprehension skill of their students and data obtained through observation on the reading comprehension and classroom participation of the students were all prepared in to a summary and report.

CHAPTER FOUR

4. Results

In this part the data gathered from the quantitative and qualitative methods through the Three- One Word Identification test, Two- Choice Word Identification test, Finding Main Idea Reading Comprehension test, interview with teachers and classroom systematic observation are presented. Whether pre- lingual deaf students identify real Amharic words from Pseudo words was first examined along with differences in sex and age. In the next set of analyses, linguistic comprehension, more specifically finding out the main idea of a passage was examined along with differences in sex and age. And in a final set of analyses, the relationship between word identification and reading comprehension was examined and hypothesis on the difficulties those deaf students encounter in reading comprehension was given.

4.1. Word Identification Skills of Pre- lingual Deaf Students

4.1.1. Students' profile

TABLE 2 Sex and age of students

Characteristic		N	%
Gender	Male	28	50%
	Female	28	50%
Age	11-13	22	39.3%
	14-17	34	60.7%

A total of 56 students were participated in this study and out of the 56 participants 28 were females and 28 were males. The pre- lingual deaf students included in this study were

between the ages of 11 years to 17 years and for the sake of simplicity the age range is categorized in to two groups which include 11 to 13 ages in to the first group and 14 to 17 ages in to the second group. The students had a mean age of 14.18 (SD= 2.17).

4.1.2 Skills of Pre- lingual Deaf Students in Three- One Word Identification test

To examine the students' word identification skill, two tests were administered; Three-One Word Identification test and Two- Choice Word Identification test. The Three- One Word Identification test consists of 60 Amharic strings of which 40 are actual words and 20 are pseudo words. The test involves a word- pseudo word ratio of 2:1. Students were expected to mark the pseudo word from the actual words. The score for this test is the number of items answered correctly in one minute.

All of the 56 pre- lingual deaf participants completed the Three- One Word Identification test. The mean score, standard deviations and percentage for the Three- One Word Identification test are presented in the following table.

TABLE 3 Mean, Standard Deviations and percentage for Three- One Word Identification test

	*Correct Ts	**Incorrect Ts
N 56		
Mean	16.87	3.12
St.Dev.	2.51	2.51

*CorrectTs represents the correct answers given to the Three- One Word Identification test.

**IncorrectTs represents the incorrect answers given to the Three- One Word Identification test.

As can be seen from table 3 pre- lingual deaf students score above average in Three- One Word Identification test (M= 16.87, SD=2.51). Overall 84.35% of the questions answered correctly by the students. All of the respondents score above 10 point out of the 20 questions. However about 59.9% (n=33) of them answered above 84.35% of the questions. This result indicates respondents do not have word recognition problem.

In the table below mean scores, standard deviation and t-test value results of word identification for male and female students were calculated and used to test whether the differences are significant or not between male and female students .

TABLE 4 Data and results of t-test on Three- One Word Identification test result by gender

	Sex	N	Mean	SD	t-value	Sig. (2-tailed)
*CorrectTs	Female	28	16.32	3.20	-.84	.40
	Male	28	17.00	2.78		

*CorrectTs represents the correct answers given by female and male students for the Three- One Word Identification test

As can be seen in the above table, the mean shows that there is no statistically significant mean difference in between male and female students (P>0.05).

Mean scores, standard deviation and t-test value results of word identification for the age range of 11-13 and 14 -17 were calculated and used to test whether the differences are significant or not between the category of age level.

TABLE 5 Data and results of t-test on Three- One Word Identification test between age groups

	Age	N	Mean	Std. Deviation	t-value	Sig. (2-tailed)
*CorrectTs	11-13	22	16.04	3.10	-1.24	.29
	14-17	34	17.05	2.89		

*Correct T's represents the correct
Answers given to the three to one word identification test by the age groups.

As can be seen in the above table, the mean shows that there is no statistically significant mean difference in between the older and younger students (P>0.05).

4.1.3. Skills of Pre- lingual Deaf Students in Two-Choice word identification test

The Two- Choice Word Identification test consists of 80 Amharic strings of which 40 are actual words and 40 are pseudo words. The test involves a word- pseudo word ratio of 1:1. Students were expected to mark the pseudo word from the actual word. The score for this test is the number of items answered correctly in one minute.

All of the 56 pre- lingual deaf participants completed the Two- Choice Word Identification test. The mean score, standard deviations and percentage for the Two- Choice Word Identification test are presented in the following table.

TABLE 6 Mean, Standard Deviations and Percentage for Two- Choice word identification test.

	*Correct Cs	**Incorrect Cs
N 56		
Mean	31.92	8.07
St.Dev.	6.65	6.65

*CorrectCs represents the correct answers given to the Two-Choice word identification test.

**IncorrectCs represents the incorrect answers given to the Two-Choice word identification test.

As can be seen from table 6 pre- lingual deaf students score above average in Two-Choice word identification test (M= 31.92, SD=6.65). Overall, 79.82% of the questions answered correctly by the students. All of the respondents score above 20 point out of the 40 questions. However about 66 % (n=37) of them answered above 79.82% of the questions. This result is almost similar to the Three- One Word Identification test result and from these findings we can conclude that pre- lingual deaf students do not have Amharic word recognition problem.

In the table below mean scores, standard deviation and t-test value results of Two-Choice Word Identification test for male and female students were calculated and used to test whether the differences are significant or not between male and female participants.

As can be seen in the above table, the mean shows that there is no statistically significant mean difference in between male and female students (P>0.05). This result is the same as the Three- One Word Identification test in which male and female students do no have a statistically significant difference in word identification skill.

Mean scores, standard deviation and t-test value results of Two- Choice Word Identification test for the age range of 11-13 and 14 -17 were calculated and used to test whether the differences are significant or not between the category of age level.

TABLE 8 Data and results of t-test on Two- Choice Word Identification test between age groups

	Age	N	Mean	Std. Deviation	t-value	Sig. (2-tailed)
*CorrectCs	11-13	22	30.18	6.30	-1.07	.28
	14-17	34	32.37	8.11		

*Correct Cs represents the correct Answers given to the Two- Choice Word Identification test by the age groups.

As can be seen in the above table, the mean shows that there is no statistically significant mean difference in between the older and younger students (P>0.05).

This result is also the same with the result found from the Three- One Word Identification test. In both tests there is no statistically significant difference between older and younger students word identification skill.

As can be seen in the above table, the mean shows that there is no statistically significant mean difference in between the older and younger students (P>0.05).

This result is also the same with the result found from the Three- One Word Identification test. In both tests there is no statistically significant difference between older and younger students word identification skill.

4.1.4 Reading Comprehension Skill of Pre- lingual Deaf Students

Finding Main Idea Reading Comprehension test was administered to examine the reading comprehension skill of the students. This test consists of 20 reading passages. Each passage item consists of 3 response alternatives for the passage. No time limit was set for completion of the test. The row score on each test is the number of correct answers.

All of the 56 participants completed Finding Main Idea Reading Comprehension test. Mean scores, standard deviation and percentage results of Finding Main Idea Reading Comprehension test was calculated and used to test the students reading comprehension skill.

TABLE 9 Mean, standard deviations and percentage for Finding Main Idea Reading Comprehension test.

	*Correct Rs	**Incorrect Rs
N 56		
Mean	7.14	12.89
St.Dev.	3.64	3.61

*CorrectRs represents the correct answers given to Finding Main Idea Reading Comprehension test

**IncorrectRs represents the incorrect answers given to Finding Main Idea Reading Comprehension test

As can be seen from table 9 pre- lingual deaf students score below average in Finding Main Idea Reading Comprehension test (M= 7.14, SD=3.64). Overall only 35.7% of the test items were answered correctly by the students. Out of the 56 respondents, only 9 (16.07%) students score above 10 points out of the 20 questions. However about 83.92% (n=47) of them answered below 35.7% of the questions. This result indicates respondents have lower score in reading comprehension.

Mean scores, standard deviation and t-test value results of Finding Main Idea Reading Comprehension test for male and female students were calculated and used to test whether the differences are significant or not between male and female students.

TABLE 10 Data and Results of t-test on Finding Main Idea Reading Comprehension test between genders

	Sex	N	Mean	Std. Deviation	T-value	Sig. (2-tailed)
*CorrectRs	Female	28	6.07	3.42	1.66	.10
	Male	28	8.46	3.79		

*CorrectRs represents the correct answers given to Finding Main Idea Reading Comprehension test.

As presented in table 10 the difference between male and female students is not significant: t-test revealed no significant group differences between boys and girls in terms of reading comprehension at $t = -1.66$, $P > 0.1$

Mean scores, standard deviation and t-test value results of Finding Main Idea Reading Comprehension test for the age group of 11-13 and 14-17 were calculated and used to test whether the differences are significant or not between the age category, 11-13 and 14-17.

TABLE 11 Data and t-test value results on Finding Main Idea Reading Comprehension test for the age groups

	Age	N	Mean	Std. Deviation	t-value	Sig. (2-tailed)
*CorrectRs	11-13	22	6.76	3.36	.59	.56
	14-17	34	8.04	4.05		

*Correct R's represents the correct Answers given to Finding Main Idea Reading Comprehension test by the age groups.

As presented in table 11 the difference between older and younger students is not significant: t-test revealed no significant group differences between older and younger students in terms of reading comprehension at t = -.59, in which P>0.5.

4.1.5. Word Identification and Reading Comprehension

TABLE 12 Correlation between word identification and reading comprehension

		CorrectTs	CorrectRs
*Correct Ts	Pearson Correlation	1	.34(*)
	Sig. (2-tailed)		.011
	N	56	56
**CorrectRs	Pearson Correlation	.34(*)	1
	Sig. (2-tailed)	.01	
	N	56	56

*CorrectTs represents the correct answers given to the word identification test
**CorrectRs represents the correct answers given to the reading comprehension test.
(*) Correlation is significant at the 0.05 level (2-tailed).

The result presented in the above table indicated that the possession of word identification skills by the Deaf students is related to their reading comprehension mainly finding

main idea of a passage performance. Pearson's correlation coefficients revealed that the students' word identification skills were positively related to their reading comprehension (rs=0.34), at the 0.05 level of significance.

4.2. Analysis of results obtained from the Qualitative data

To supplement and strengthen the results found from quantitative data, qualitative data gathering method was employed. Interview with the four schools Amharic teachers and classroom observation by the researcher was conducted. 1 male and 3 female teachers were interviewed. All the teachers have more than 2 years of experience with teaching deaf students. Further more, all of the teachers reported that they had training in Sign Language.

4.2.1. Interview reports from Teachers about the Word Identification and Reading Comprehension Skill of their Students

The four teachers with whom the interview was made agreed that, pre- lingual deaf students have a better Amharic word identification skill compared to their reading comprehension skill. They said the student's poor skill in reading comprehension may be the result of inaccessibility of spoken language for most deaf children and absence of any meaningful language at home during the deaf children's early years. The following responses represent the views that teachers have for the poor reading comprehension skill of their deaf students.

- Lack of any meaningful language at home in the early years of the children
- Absence of materials which are easy to understand by deaf students
- Teaching reading before the students acquires any language
- High number of deaf students in the classroom
- Lack of interest to practice and play with words and word meanings by the students

- Lack of encouragement from parents by explaining the meaning of Amharic words by a language that their deaf children understand.

Also one teacher said "*most deaf children are introduced for the first time with any meaningful language when they come to school. This, he said, affects the deaf student's ability to read and understand a passage*".

Another teacher said that 'at this level of grade 5 Deaf children may not have a word identification problem because 'words at this level are simple and are learned through perception of the referents of the word. For example a child will learn the word ball by connecting that word with a ball or the picture of a ball he or she concretely sees. But when we come to higher grades most words are not learned through perception but rather through linguistic information processing due to the words abstract nature. That means the word will have to be explained to the child through language or it will have to be derived from conversation. But most deaf children lack an extensive language input and experience with their parents, peers and the society at large since their early childhood period. They lack the opportunity to learn the words which derive from linguistic information (verbal or written explanation, description or discussion) that can appear only as a result of exposure to the social environment using sign language. This makes reading and gaining the main idea of a passage difficult for most deaf children.

The teachers were also asked if they use any method to improve the student's word identification skill. They all responded that they encourage the students to memorize individual words but they knew this method is not adequate to make the students aware of all words in

Amharic language. One teacher replied that she encourages the students to dig Amharic words by themselves but lack of Amharic dictionaries with pictures and the appropriate explanation for children makes her strategy unsuccessful. The other teacher also said he encourages deaf students to play with Amharic words with their hearing classmates. He said he uses a game based teaching material and deaf students are happy and able to learn better by this method than just memorizing words by themselves.

When the teachers were asked how they teach reading for their deaf students. They said they use different methods like, classroom passage reading using sign language, game based reading competition between the students, explaining word meanings in sign language and encouraging students to approach reading as an enjoyable activity.

When the teachers were asked to compare the reading skills between genders they all said there is no significant difference between boys and girls. But they said the older children have a better reading comprehension skill compared to the younger children and they said this may be due to the older children have a better experience about things and events of the world.

The teachers were asked what difficulties deaf children encounter when reading. They all agreed that difficulty that deaf children have in Amharic language is the main problem in reading Amharic. One teacher said '*deaf children are forced to read in a language they don't know. Before a student starts to learn reading in a language, he/ she must know the language or at least he/ she should have some basic skills of the language.* The other problem deaf students are facing when reading according to the teachers is, lack of an easy to use reading materials with

pictures and the appropriate explanation for children. The teachers also said lack of discussion and explanation about things and events at home for the deaf children affect the students reading skill and their overall understanding of a written passage. As one teacher put it '*A child who is educated only at school is uneducated*'.

4.2.2 Results obtained from classroom observation

To supplement data obtained from the tests, classroom observation took place in order to observe the students word identification, understanding the main idea of a passage and problems encountered when reading. Major activities that help the researcher to supplement the quantitative data are presented below.

It is observed that the deaf students do not have a problem identifying real Amharic words when the words are predictable or are repeated in the classroom. But when the deaf students are asked to identify words that are new to them, they often make mistakes.

Based on the observation, when reading a passage, the teachers reads it first and give explanation of the story and word meanings in the story, in sign language. But since the teachers are not fluent users of the language, it is observed that much information is lost in the explanation, for the deaf pupils get accurate meaning.

The reading method employed in the classroom appeared largely to be teacher centered. Group activities or discussion on the story were not the very nature of the classroom. Therefore, classroom participation on reading was limited in general to few students, and it was also seen to be limited only to those who volunteer to participate and who are older in age.

Unaware of Amharic word meanings is the main difficulty that is seen in the classroom passage reading practices. Because of this, finding out the main idea of a passage after reading was a very difficult task for many pre- lingual deaf students. The students often ask the meaning of individual words in the story, instead of comprehending the story as a whole and collecting the information the writer intends to pass.

Generally, it was observed that the pre- lingual deaf student's Amharic reading comprehension skill is very poor. A lot remains to be done to improve the reading comprehension skill of these students. More training and support is needed for the teachers. More resources and materials that are easy to use by deaf students are required. More encouragement, support and special assistance on reading should be provided for the pre- lingual deaf students in the target schools.

This research aims at examining the reading comprehension skill of grade five pre- lingual deaf students at Alpha, Mekanisa, Victory School for the Deaf and at Minilik Primary School Unit for the Deaf. More specifically the study focused on two components of reading; decoding skill which refers to efficient word recognition and linguistic comprehension skill which in the present study refers to finding main idea of a passage and the way these two skills related to reading comprehension skills.

The research methodologies employed were both quantitative method and qualitative method. Three tests were administered to collect data quantitatively. The tests were 1) Three-One Word Identification test2) Two- Choice Word Identification test 3) Finding Main Idea

Reading Comprehension test. As a supplementary method interview and classroom observation were conducted to collect data qualitatively.

The data sources were selected using availability sampling techniques. The four schools Amharic teachers were included in the interview. Note taking method was employed to record data from the interview. Detailed field notes were also generated after each classroom observation sessions that were conducted. To keep confidentiality anonymity and willingness of subjects was maintained. The collected data are organized based on the research questions and interpreted using existing literatures.

From both quantitatively and qualitatively collected data, it was revealed that pre- lingual deaf grade five students found in the four schools the research conducted do not have Amharic word identification problem. But the results show that their reading comprehension skill is very poor. Although the results show that word identification and reading comprehension are related, this relation does no completely explain the comprehension difficulties encountered by deaf children. Additional factors of linguistic comprehension are required to explain pre- lingual deaf children's difficulties with reading comprehension. The result also revealed that there is no significant difference between gender and age differences in both word identification and reading comprehension skills.

CHAPTER FIVE

5. Discussion, Conclusions and Recommendations

5.1 Discussion

The results of the present study show that the reading comprehension of grade five pre-lingual deaf students is poor. Although the participants studied here had a better word identification skill, their average score on reading comprehension is very low. Both the word identification and reading comprehension average scores were found to increase with increased age and with the male participants. But it is found that this difference is not significant.

According to the simple view of reading, one possible explanation for deaf children's reading comprehension problems may be word identification problems. However, the present study show pre- lingual deaf students do not have a significant problem in word identification skill. This finding suggests that the low reading comprehension scores of the deaf participants are not completely explained by their low scores for word identification. As Merrills et al. (1994) concluded in their study, word identification may explain some but certainly not all of the reading comprehension difficulties encountered by deaf children. When deaf children's word identification skill is above average, their reading comprehension may still lag behind. In keeping with the simple view of reading, this implies that the explanation for deaf children's low reading comprehension must lie in not their word identification but in their linguistic comprehension.

Hoover and Gough (1990) defined linguistic comprehension as "the ability to take lexical information and derive sentence interpretations" (p.131). The researcher of this study hypothesize that deaf children's lack of access to language may cause difficulties with the learning of word meanings that tend to be acquired via linguistic explanation (Wauters, Tellings,Van Bon,& van Haafteen,2003). More specifically, the reading of passages with many words whose meanings have to be acquired via linguistic explanation may be quite difficult and therefore lead to comprehension problems. In a previous study (Wauters et al.,2003), school reading passages were indeed found to contain a higher percentage of word meanings that are probably learned via linguistic information than word meanings that are probably learned via perceptual information. Difficulties with the learning of word meanings via language may therefore produce difficulties with the understanding of such passages although further research is needed to investigate just whether and how the aforementioned difference in word meanings affects the passage comprehension of deaf students.

The results of the present study show the reading comprehension of deaf students in the four schools the research conducted to be lower than expected on the basis of their word identification. In other words, the reading comprehension problems of deaf children appear to be the result of other, linguistic-comprehension factors and future research should further explore the exact nature of these factors.

5.2. Conclusion

This study has attempted to examine the reading comprehension skill of pre- lingual deaf student's in fifth grade. More specifically, the role of two factors in reading was studied: word identification and finding main idea from a passage. Two tests are administered and completed

by the students. Interview schedules were used to collect information from the Amharic teachers of the four schools the research was conducted. Moreover, observation sessions were conducted within the Amharic classroom to confirm data obtained from the tests and interview schedules. The findings of this study have shown a great deal of similarity with the studies conducted in the United States, Great Britain, Israel and the Netherlands. The conclusions arrived at are presented below.

1. The findings of the study revealed that pre- lingual deaf students do not have a problem identifying real words from pseudo words.
2. The findings of this study revealed that pre- lingual deaf students reading comprehension skill is very poor.
3. Though the findings of this study revealed word identification and reading comprehension are positively related this does not completely explain the reason behind the poor results in the students reading comprehension test score.
4. The heartening result of the participants on the word identification test indicates that the low reading comprehension scores (on Finding Main Idea Reading Comprehension test) are not due to poor word identification.
5. There is no statistically significant difference between male and female students in both word identification and reading comprehension skill.
6. There is no statistically significant difference between older and younger students in both word identification and reading comprehension skill.

7. The finding of this study revealed that classroom lessons were not supplemented with activities and experiences that encourage students to play with Amharic words and word meanings.
8. The findings of this study revealed that most pre- lingual deaf students come to school with out any meaningful language that will then affect the development of reading.
9. The study results revealed that there is lack of easy to use Amharic dictionaries by deaf students.
10. The findings of this study revealed that the four schools Amharic teachers are creating their own methods and strategies to help and support the pre- lingual deaf students improve their reading comprehension skills.
11. Finally, lack of language input with most deaf children makes acquisition of word meanings, which is an important skill in reading comprehension, makes reading a complicated task for most pre- lingual deaf students. Less language input for deaf children results in less linguistic units in the mental lexicon (in spoken language or sign language units), which hinders acquisition of word meanings with strong linguistic elements. Consequently, problems will arise when deaf children have to read passages that contain many words that are supposed to be learned linguistically.

It must be noted that the present study has some limitation. Despite the fact that the study includes all fifth graders pre- lingual deaf students and their Amharic teachers in the four schools, it was not possible to enroll the post lingual and the hard of hearing students and compare the three groups (pre lingual, post lingual and hard of hearing) reading comprehension skills. This is mainly due to the very large size of these groups. Also the present study of the role

of linguistic competence in reading comprehension concentrates on one central component of this competence: Finding out the main idea of a passage. This is due to that linguistic competence is a complex ability comprising various skills and various forms of knowledge and the researcher of this study lack the necessary resources to do an extensive research in this complex linguistic competence ability. But studies exploring a similar issue in the future should also involve other skills of linguistic competence like the process of knowing the meaning of words.

Finally, these results are for a small sample of students in four schools of the deaf. Additional studies of the word identification and linguistic comprehension will add to our knowledge of the capabilities of these students, the areas in which they need the most support from teachers and parents, and the expectations that we should hold for their academic success.

5.3 Recommendation

Based on the findings of this study and ideas extracted from the related literature, the following measures are recommended to be taken by those who are responsible for the education of deaf students in the target schools.

1. First and foremost there is a need for linguistic experience to enrich word meanings and concepts. Plentiful language experience is extremely needed by deaf children. Parents and teachers should encourage their deaf children by providing as much linguistic experience as possible.

2. There should be a system to identify and assess new born babies with hearing loss. This will enable to provide early intervention in the language development of the deaf children.
3. Extensive Ethiopian Sign Language training should be provided for parents, siblings, teachers and relatives of the deaf to enrich the deaf children language experience as early as possible.
4. There should be easy to use Amharic dictionaries with pictures for deaf children so that they can be able to dig word meanings by themselves.
5. Deaf students should be encouraged to play with words and word meanings by their parents and teachers in their early years of language development.
6. Finally, the results of this study show that the reading comprehension problems of pre-lingual deaf students appear to be the result of other, linguistic- comprehension factors and future research should further explore the exact nature of these factors.

References

1. Ababa Hagos (1996). *Academic barriers of the hearing- impaired.* MA Thesis. University of Joensuu, Finland. Unpublished.
2. Alemayehu Teklemariam (2000). *Communication experiences of pre- lingual deaf adolescents.* University of Oslo, Norway. M. Phil Thesis Unpublished.
3. Alemayehu Teklemariam (2003). Effects of deafness on development of pre- lingual deaf adolescents. *Educational Journal, MOE, Vol.4,no.10,44-72*
4. Antia, S. D., & Levine, L. M. (2001). Educating deaf and hearing children together: Confronting challenges of inclusion. In M.J.Guralnick (ED.), *Early childhood inclusion*: Focus on change. Baltimore: Brookes.
5. Atelach A., Lars A., & Mesfin G. (2003). *Natural language processing for amharic: overview and suggestions for a way forward.* In Proceedings of the 2nd Workshop and Treebanks and Linguistic Theories, Vaxjo University, Sweden.
6. Beck, I. and Juel, C. (1995). The role of decoding in learning to read. *Journal of American Educator, 19, (2), 8-25.*
7. Bowen, C. (1998). *Speech and languc.ge development in infants and young children.* http://www.speech-language-therapy.com/devel1.htm retrieved on January 15, 2010.
8. Buckley Belinda (2003) *Children's communications Skills: From Birth to Five Years.* New York: Routledge.
9. Burden, V. Campbell, R. *(1994).* The development of word-coding skills in the born deaf: An experimental study of deaf school-leavers. *British Journal of Developmental Psychology, 12, 331–349.*

10. Debbie Miller (2002). *Reading with Meaning: Teaching Comprehension in the primary Grades.* New York. Stenhouse.

11. Fischler I. *(1985)* Word recognition, use of conpassage, and reading skill among deaf college students. *Reading Research Quarterly, 2,203–218.*

12. *Getting the Main Idea Around the World test. (2004).* New York. World Class Learning Materials Inc.

13. Goswami, U.(2008) *Reading, complexity and the brain.*UK. University of Cambridge.

14. Harris M., & Beech, J.*(1998*). Implicit phonological awareness and early reading development in prelingually deaf children. *Journal of Deaf Studies and Deaf Education, 3,205–216.*

15. Hermans, D. (2007). The Relationship between the Reading and Signing Skills of Deaf Children in Bilingual Education Programs. *Journal of Deaf Studies and Deaf Education, 13(4), 518-530.*

16. Hoover, W.A., & Gough, P.G (1990). The simple view of reading, Reading and writing*: An interdisciplinary Journal, 2, 127-160.*

17. Izzo, A. (2002). Phonemic awareness and reading ability: An investigation of young readers who are deaf. *American Annals of the Deaf, 147(4),* 18-28.

18. *Kuntze, M. (1998).* Literacy and deaf children: the language question. *Topics in Langauge Disorders 18(4):1-15*

19. Lillian C. & Restaino, R. (1990). *Identification, assessment and prediction of reading competency in Deaf Children.* Lexington School for the Deaf, New York, NY.

20. Luetke-Stahlman, B. & Nielsen, D.C. (2003). The contribution of phonological awareness and receptive and expressive English to the reading ability of deaf students with varying degrees of exposure to accurate English. *Journal of Deaf Studies and Deaf Education*, 8, 464-484.

21. Marcia K.Henry (1993) . *The role of decoding in reading research and instruction.* California. San Jose University.

22. Marschark, M. (2002). Foundations of communication and the emergence of language in deaf children. In G.Morgan & B. Woll (Eds.), *Directions in sign language acquisition* (pp.1-28). Philadelphia,PA: John Benjamins Publishing.

23. Marschark, M. 2001. *Language development in children who are deaf: A research synthesis.* Alexandria, VA: National Association of State Directors of Special Education. ERIC ED 455 620.

24. *Marschark, M., & Mayer, T.S. (1998).* Mental representation and memory in deaf adults and children. In M.Marschark and M.D.Clark (Eds.), *Psychological perspectives on deafness,* Vol.2 (pp.53-77). Mahwah, NJ: Lawrence Erlbaum Associates.

25. Marschark, M., and Harris, M. (1996). Reading comprehension difficulties: Processes and intervention, Success and failure in reading: The special case of deaf children. *Journal of Deaf Studies and Deaf Education ,7(2), 279–300.*

26. Marschark, M., Lang, H.G.,& Albertini, J. A. (2002). *Educating deaf students: from research to practice.* New York: Oxford University Press.

27. *Merrills J.D., Underwood, G., & Wood,D.J. (1994).* The word recognition skills of profoundly, prelingually deaf children. *British Journal of Psychology,12,365-384.*

28. Moores, D. F. (1987). *Educating the deaf, psychology, principles and practices,* 3rd ed.Boston. Houghton Mifflin.

29. Moores, D. F. (2001). *Educating the deaf: Psychology, principles, and practices, 5th ed.* Boston: Houghton-Mifflin.

30. Musselman, C. (2000).How do children who can't hear learn an alphabetic script? A review of the literature on reading and deafness. *Journal of Deaf Studies and Deaf Education,5, 9–31.*

31. National institute on Deafness and Other communication Disorders: Speech and language development milestones. http://www.nidcd.nih.gov/health/voice/speechandlanguage.asp retrieved on August 29,2009.

32. National Panel on Reading: Components of reading comprehension. http://www.nationalreadingpanel.org/faq/faq.htm#13 retrieved on August 27,2009

33. Oates, J., & Andrew G. (2004). *Cognitive and Language Development in Children.* Malden, MA: Blackwell.

34. Padden, C. A., and C. L. Ramsey. 1993. Deaf culture and literacy. *American Annals of the Deaf 138(2): 96-99.*

35. Phillips, J. & Chrissie, T. (2005). *Competence, Linguistic.* The Literary Encyclopedia. 2nd ed. London. Palgrave Macmillan.

36. Rottenberg, C. J. 2001. A deaf child learns to read. *American Annals of the Deaf 146(3): 270-75.*

37. Rottenberg, C. J., and L. W. Searfoss. 1992. Becoming literate in a preschool class: Literacy development of hearing-impaired children. *Journal of Reading Behavior 24(4): 463-79.*

38. Ruiz, N. T. 1995. A young deaf child learns to write: Implications for literacy development. *The Reading, Teacher 49(3): 206-17.*

39. Saba A. & Dafydd G. (2005). *Finite state morphology of amahric. In International Conference on Recent Advances and Natural language processing, Pages 47-51, Borovets.*

40. Sandra J. Briggle (*2005). Language and Literacy Development in Children who are Deaf or Hearing Impaired.* Ohio. Kappa Delta pi Record.

41. Stothard, S.E., & Hulme,C. (1996). *A comparison of reading comprehension and decoding difficulties in children.* UK.University of Newcastle printing press.

42. Strassman, B. *K. (1997).* Metacognition and reading in children who are deaf: a review of the research. *Journal of Deaf Studies and Deaf Education, 2, 140-149*

43. Tellings, A. (1995). *The two hundred years' war in deaf education: A reconstruction of the methods controversy.* Dissertation University of Nijmegen. The Netherlands.

44. Thompson,G.B, Tunmer,W.E and Nicholson.T. (1992). *Reading acquisition processes. Journal of Reading Behavior 12(4): 63-79.*

45. Tirussew Teferra. (2000). *Human Disabilities, Developmental, Educational and Psychosocial Implications.* Addis Ababa: Addis Ababa University Printing Press.

46. Van D., Tooren H., and Van E. (2000). Silent Reading Test. University of Nijmegen. Netherlands.

47. Vermeulen, A., vanBon, W. and Schreuder , R. (2007).Reading comprehension of deaf children with cochlear implants. *Journal of Deaf Studies and Deaf Education ,12(3), 283-302.*

48. Vivian J. Cook. (1997). *Inside language, 3rd Ed.* UK. Hodder Arnold.

49. Wang, D. (2009). Factors affecting the comprehension of global and local main idea.(Report). *Journal of College reading and learning, 12(4), 56-78.*

50. Wauters, L.N., Tellings,A.E.J.M., van Bon,W.H.J., & van Haaten,A.W.(2003). Mode of Acquisition of word meanings: The viability of a theoretical construct. *Journal of applied Psycholinguistics, 24, 385-406.*

Appendix1a: Three- One Word Identification test

አዲስ አበባ ዩኒቨርስቲ

ድህረ ምረቃ ትምህርት ቤት

የልዩ ፍላጎት ትምህርት ክፍል

ውድ ተማሪ

እኔ በአሁኑ ሰዓት በአዲስ አበባ ዩኒቨርስቲ በልዩ ፍላጎት ትምህረት ክፍል መስማት የተሳናቸውን ተማሪዎች አማርኛ የማንበብ ክህሎት በሚመለከት የሁለተኛ ዲግሪ መመረቂያ ጽሁፌን በማዘጋጀት ላይ እገኛለሁ። ጥያቄዎቹን እንዲመልሱልኝ ወደ እርስዎ አስፈላጊውን ፍቃድ ከትምህርት ቤቱ ርዕሰ መምህር ያገኘሁ መሆኔን እየገለጽኩ ለዚህ ስራ ትብብርዎን የሚያሳዩኝ በዚህ መጠይቅ ውስጥ ላለ ጥያቄዎች አስፈላጊውን መልስ በመስጠት ይሆናል።እርስዎ የሚሰጡኝ መልሶች በሙሉ ለዚህ ስራ ብቻ የሚውልና በሚስጥር የሚጠበቅ መሆኑን አረጋግጣለሁ።

ዕድሜ:_____ እድሜ:_____ የክፍል ደረጃ:_____

የመስማት ችሎታህን ያጣህው/ሽው መቼ ነበር?

ሀ) ስወለድ ጀምሮ

ለ) እስከ ሶስት ዓመቴ ባለው ጊዜ

መመሪያ-: ከተሰጡት ሦስት ሦስት አማራጮች ውስጥ ትክክለኛ ያልሆነውን ቃል መርጣችሁ አክብቡ::

1.	ሀ. ጥናት	ለ. መጥናት	ሐ. ማጥናት
2.	ሀ. እርሻ	ለ. ማረስ	ሐ. እሮስ
3.	ሀ. ትምር	ለ. ትምህርት	ሐ. መማር
4.	ሀ. ተስማሚ	ለ. ተስማመ	ሐ. ተስማም
5.	ሀ. ውናው	ለ. ዋናው	ሐ. ዋና
6.	ሀ. ሆነ	ለ. ነው	ሐ. ሆነው

7.	ሀ. ረዳት	ለ. ረዳት	ሐ. መረዳት
8.	ሀ. ቀላል	ለ. ቅልቅል	ሐ. ላልቅ
9.	ሀ. ህይወት	ለ. ባህወት	ሐ. በህይወት
10.	ሀ. ሦስት	ለ. ሦስተኛ	ሐ. ስሦስኛ
11.	ሀ. ብቻቹ	ለ. ብቸኛ	ሐ. ብቻ
12.	ሀ. ቤልቶ	ለ. ቤት	ሐ. ቤቶች
13.	ሀ. መንገድ	ለ. መንገዶች	ሐ. መልገዶች
14.	ሀ. ነፃ	ለ. ነፃነት	ሐ. ነፃዕ
15.	ሀ. ውስጥ	ለ. ውጭስ	ሐ. ውጭ
16.	ሀ. ጥረት	ለ. ጥራት	ሐ. ጥትራ
17.	ሀ. ጥቅም	ለ. ቃምም	ሐ. መጠቀም
18.	ሀ. ማወቅ	ለ. አዋቂ	ሐ. ወቅማ
19.	ሀ.ልዩ	ለ. ልድ	ሐ. ልዩ ልዩ
20.	ሀ.አየር	ለ. ሰማይ	ሐ. አየራት

Answer for Three- One Word Identification test

1. ለ	11. ለ
2. ሐ	12. ሀ
3. ሀ	13. ሐ
4. ሐ	14. ሐ
5. ሀ	15. ለ
6. ለ	16. ሐ
7. ሀ	17. ለ
8. ሐ	18. ሐ
9. ለ	19. ለ
10.ሐ	20. ሐ

Appendix 1b: Two- choice Word identification test

አዲስ አበባ ዩኒቨርስቲ
ድህረ ምረቃ ትምህርት ቤት
የልዩ ፍላጎት ትምህርት ክፍል

<u>መመሪያ</u>፦ ከተሰጡት ሁለት ሁለት አማራጮች ውስጥ ትክክለኛ ያልሆነውን ቃል መርጣችሁ አክብቡ።።

1.	ሀ. አዲስ አበባ	ለ. አዲሰ አባ
2.	ሀ. ጤዳ	ለ. ጤና
3.	ሀ. ስፋድ	ለ. ስፋት
4.	ሀ. ውጤት	ለ. ውጤስ
5.	ሀ. አነስተኛ	ለ. አነድረኛ
6.	ሀ. ክሌሌ	ለ. ክልል
7.	ሀ. ውርጃ	ለ. ውድጃ
8.	ሀ. መጠድ	ለ. መጠጥ
9.	ሀ. መሀሌያ	ለ. መክላክያ
10.	ሀ. ግማሀ	ለ. ግማሽ
11.	ሀ. ማሳየት	ለ. ማካየት
12.	ሀ. ህግወት	ለ. ህገወጥ
13.	ሀ. ጥንቃቄ	ለ. ጥንቀቃ
14.	ሀ. ጠጥ	ለ. ጥጥ
15.	ሀ. አንበሳ	ለ. አንበካ
16.	ሀ. አባድ	ለ. አባይ
17.	ሀ. ቀለክ	ለ. ቀለም
18.	ሀ. ብልል	ለ. ልብ
19.	ሀ. ድንቅ	ለ. ድንስ
20.	ሀ. ጡይት	ለ. ጥይት
21.	ሀ. አፈድ	ለ. አፈር

22.	ሀ. ሕድብ	ለ. ሕዝብ
23.	ሀ. ችግር	ለ. ችርግ
24.	ሀ. ተስፋ	ለ. ስፋል
25.	ሀ. ጠደፈ	ለ. አጣዳፈ
26.	ሀ. ልቅሶ	ለ. ቅንሶ
27.	ሀ. አምዳት	ለ. አመታት
28.	ሀ. ሐይቅ	ለ. ከይቅ
29.	ሀ. ተፈጥሮ	ለ. ፈትትሮ
30.	ሀ. ዝንበር	ለ. ገንዘብ
31.	ሀ. ሞቃት	ለ. ትቃልድ
32.	ሀ. ትዝታ	ለ. ድዝታ
33.	ሀ. ሀብትነ	ለ. ሀብት
34.	ሀ. በሽታ	ለ. ቡሽታ
35.	ሀ. ልማዊ	ለ. ልማት
36.	ሀ. ድልድይ	ለ. ድይልይ
37.	ሀ. ወድጅ	ለ. ወዳጅ
38.	ሀ. የሚከተሉት	ለ. ጠከሚሉት
39.	ሀ. ህጎች	ለ. ጎልች
40.	ሀ. ፍልጎል	ለ. ፍላጎት

Answer for Two-choice word identification test

1.	ለ	21.u
2.	ሀ	22.ሀ
3.	ሀ	23. ለ
4.	ለ	24.ሀ
5.	ለ	25. ለ
6.	ሀ	26.ሀ
7.	ለ	27. ለ
8.	ሀ	28.ሀ
9.	ሀ	29. ለ
10.	ሀ	30. ለ
11.	ለ	31.ሀ
12.	ሀ	32. ለ

13. ∧ 33. ∧
14. ∪ 34. ∪
15. ∧ 35. ∧
16. ∪ 36. ∪
17. ∪ 37. ∪
18. ∪ 38. ∧
19. ∧ 39. ∧
20. ∪ 40. ∪

Appendix 2: Finding Main Idea Reading Comprehension test

አዲስ አበባ ዩኒቨርስቲ

ድህረ ምረቃ ትምህርት ቤት

የልዩ ፍላጎት ትምህርት ክፍል

<u>መመሪያ</u> - የሚከተለውን አንቀፅ አንብባችሁ ከተሰጡት ሦስት አማራጮች ውስጥ የአንቀፁን <u>ዋና ሀሳብ</u> ሊገልፅ ይችላል የምትሉትን አማራጭ አክብቡ።

1 ወንድሜን እንከባከበዋለሁ። አራት አመቱ ነው። ቲቪ መመልከት ይወዳል። ቀለም መቀባትም ይወዳል። ብዙ ጊዜ በጣም ጥሩ ልጅ ነው። ..... ዋናው ሀሳብ፡ 1. ስለቤተሰብ መናገር 2. ስለወንድም መናገር 3. ወንድ ልጆች ጥሩ እንደሆኑ መናገር	2 በጋ በጣም መሞቅ ይሆናል። አንዳንዴ ለመስራትም አይመችም። ለመጫወትም አይመችም። ዋና መዋኘት ግን ይመቻል። ..... ዋናው ሀሳብ፡ 1. በጋ አጭር ነው። 2. ትምህርት ቤት በበጋ ይጀመራል። 3. በጋ መሞቅ ሊሆን ይችላል።

3

አሰግድ ጃኬቱ ጠፍቶበታል። የት እንዳስቀመጠው አላስታወሰም። ቤት ውስጥ ሁሉ ፈልጎታል። ጃኬቱ አዲስ ነው። ሊያገኘው ይገባል።

.....
...

ዋናው ሀሳብ፡

1. አሰግድ አዲስ ጃኬት አገኘ።
2. አሰግድ ጃኬቱ ጠፍቶበታል።
3. አሰግድ ጃኬቱን አለወደደውም።

4

ዘሪቱ ስለ ርግቦች ማንበብ ትወዳለች። ሁሉም ርግቦች ላባ እንዳላቸው አንብባለች፤ አንዳንድ ላባዎች ውብ እና ደማቅ እንደሆኑ፤ ሁሉም ርግቦች እንቁላል እንደሚጥሉ፤ አንዳንድ ርግቦች መብረር እንደማይችሉ ሁሉ አንብባለች።

.....
...

ዋናው ሀሳብ፡

1. ዘሪቱ ስለርግቦች አንብባለች።
2. ሁሉም ርግቦች ይበራሉ።
3. ዘሪቱ ብዙ ርግቦች አላት።

5

ቱዲ ውሻ ቢያገኝ ደስ ይለዋል። ጥቁር ውሻ ይፈልጋል። ታምሩ ብሎ ዉሻውን ሊጠራው ይፈልጋል። ቱዲ በቅርቡ ውሻ እንደሚያገኝ ተስፋ ያደርጋል።

.....
...

ዋናው ሀሳብ፡

1. ታምሩ የቱዲ ውሻ ነው።
2. ቱዲ ውሻ ይፈልጋል።
3. የቱዲ ውሻ ቡኒ ቀለም አለው።

6

ብዙ ሰዎች ቡርቱካን መብላት ይወዳሉ። ስለሚጣፍጥና አስደሳች በመሆኑ ይወዱታል። ጠቃሚ ፈሳሽም ስላለው ይመርጡታል።

.....
...

ዋናው ሀሳብ፡

1. ቡርቱካን ከበሽታ ይከላከላል።
2. ቡርቱካን ተወዳጅ ነው።
3. ቡርቱካን ማብቀል ከባድ ነው።

7

ነብር የዱር እንስሳ ነው። ጫካ ውስጥ ይኖራል። ሌሎች እንስሳትን ለምግቡ ያድናል። ነብር ጥሩ የዋና ችሎታ አለው።

.....
...

ዋናው ሀሳብ፡

1. የነብር መልክ ምን እንደሚመስል ለማሳየት።
2. ነብር ለማዳ እንስሳ እንደሆነ ለማሳየት።
3. ስለነብር ለመናገር።

8

አበበች አዲስ ቤት ለውጣለች። አዲሱ ቤት ከአሮጌው ቤት ብዙም አይርቅም። አዲሱ ቤት ሰፊና ውብ ነው። ብዙ ክፍሎችም አሉት።

.....
...

ዋናው ሀሳብ፡

1. አበበች ቤት መለወጥ አትፈልግም።
2. አበበች ቤት ልትለውጥ ነው።
3. ስለአዲሱ ቤት መናገር።

9

ህይወት አያትዋን ለማየት ትመኛለች። አያትዋ ሩቅ ቦታ ይኖራሉ። ህይወት በአይሮፕላን አያትዋን ለማየት መሐዱ ትችላለች። አያትዋን ለማየት ትናፍቃለች።

.....
...

ዋናው ሀሳብ፡

1. የህይወት አያት አርጅተዋል።
2. ህይወት በአይሮፕላን መሐዱ ትወዳለች።
3. ህይወት አያትዋን ለማየት ትፈልጋለች።

10

የዩናስ ቤተሰቦች በጋራ ትልቅ ቤት ውስጥ ይኖራሉ። በቤተሰቡ ውስጥ አምስት ልጆች አሉ። የሴት እና የወንድ አያቶቻቸውም ይኖራሉ። የዩናስ ቤተሰቦች ብዙ ሆነው በጋራ ይኖራሉ።

.....
...

ዋናው ሀሳብ፡

1. ዩናስ እና ቤተሰቡ።
2. ቤቱ በጣም ትንሽ ነው።
3. ሁሉም ቤቶች ትልቅ መሆን አለባቸው።

11

ቤቲ ከትምህርት ቤት ወደ ቤት ስትመለስ ትንሽ ቡችላ አየች። ቡችላዋ በጭቃ ስትጫወት ነበር። ቡችላዋ ቤቲን ቤትዋ ድርስ ተከተለቻት። ቤቲ ቡችላዋን ወሰደች።

.....

ዋናው ሀሳብ፡

1. ቤቲ አዲስ ቡችላ አገኘች።
2. ድመትዋ ቤቲን ተከተለቻት።
3. ቤቲ ውሻዋ ጠፋባት።

12

ትልቅ የጭነት መኪና እነ ሳሚ በር ላይ አዲስ አልጋ ጭኖ ቆመ። ሁለት ሰዎችም ከመኪናው ወረዱ። የመኪናውን በር ከፈቱና የሳሚን አዲስ አልጋ አወረዱ።

.....

ዋናው ሀሳብ፡

1. መኪናው ብዙ አልጋ ይዞ ነበር።
2. ሳሚ አዲስ አልጋ አገኘ።
3. ሳሚ አዲስ ወንበር አገኘ።

13

ሀና ስታድግ ደራሲ መሆን ትፈልጋለች። ብዙ ጊዜ ጥሩ ጥሩ ታሪኮች ትፅፋለች። ሁሉም ሰዎች ሀና የምትጽፋቸውን ታሪኮች ማንበብ ይወዳሉ።

.....

ዋናው ሀሳብ፡

1. ሀና ለሰዎች ታነብላቸዋለች።
2. ሀና እና የምትፅፋቸው ታሪኮች።
3. ሁሉም ሰው መፃፍ ይወዳል።

14

ድብ ብዙ ቦታ ይኖራል። ብዙዎቹ ድቦች ቡናማ ወይም ጥቁር ናቸው። አንዳንዶቹ ድቦች ትንሽ ናቸው። ብዙዎቹ ግን ትልልቅ ናቸው። ድቦች ብዙ ጊዜ ለማዳ አይደሉም።

.....

ዋናው ሀሳብ፡

1. ድቦች መጥፎ እንደሆኑ ለማሳየት።
2. ስለድቦች ለመናገር።
3. ድቦችን እንዴት መያዝ እንደሚቻል ለማሳየት።

15

ሰላም ምግብ ትሰራለች። እቃ አጥባና አዘጋጅታም ታስቀምጣለች። ቤትም ታፀዳና ታሳምራለች።

.....
...

ዋናው ሀሳብ፡

1. ሰላም ዳቦ መጋገር ትወዳለች።
2. ሰላም ብዙ ስራ ትሰራለች።
3. የሰላም እናት ሰላም እንድትረዳት አትፈልግም።

16

ብርሃኑ እና ሮቤል የሚመሳሰሉ ጎደኞሞች ናቸው። መልካቸውም ይመሳሰላል። ሲናገሩም ይመሳሰላሉ። አንዳንዴ ተመሳሳይ ልብስ ይለብሳሉ። ሰዎች ሮቤል ብርሃኑ ይመስላቸዋል ወይም ብርሃኑ ሮቤል ይመስላቸዋል።

.....
...

ዋናው ሀሳብ፡

1) ብርሃኑ እና ሮቤል በብዙ ይመሳሰላሉ።
2) ብርሃኑ ከሮቤል በእድሜ ይበልጣል።
3) ብርሃኑ ከሮቤል በውፍረት ይበልጣል።

17

አንተነህ ነፍሳትን ይዞ በብርጭቆ ያስቀምጣቸዋል። ብርጭቆው ቀዳዳ አለው። ምግብና ውሀ በቀዳዳው ያስገባላቸዋል። አንተነህ አስር የነፍሳት መያዣ ብርጭቆ አለው።

.....
...

ዋናው ሀሳብ፡

1. ነፍሳት ሁሌ ጥሩ ናቸው።
2. አንተነህ ነፍሳት አይወድም።
3. አንተነህ በብርጭቆ ነፍሳት ይይዛል።

18

ዝሆን በምድር ላይ በጣም ትልቁ እንስሳ ነው። ትልቅ ጆሮ፤ ትልቅ ኩንቢ፤ ትልልቅ እግርና እጅም አለው።

.....
...

ዋናው ሀሳብ፡

1. ዝሆን ጥሩ ለማዳ እንስሳ ነው።
2. ዝሆን ትልቅ እንስሳ ነው።
3. ዝሆን ቅጠላ ቅጠል ይበላል።

19 ኤደን መዝሙር ትወዳለች። በራዲዩ መዝሙር ስተሰማ ደስ ይላታል። የራስዋንም መዝሙር ስትጫወት ደስ ይላታል። መደነስም ትወዳለች። .... ዋናው ሀሳብ፡ 1. መዝሙር መጫወት ያዝናናል። 2. ኤደን መዝሙር በጣም ትወዳለች። 3. ሁሉም ሰው መዝፈን አለበት።	20 ብዙ ሰዎች እንዳይረፍድባቸው በጠዋት ወደ ስራ ይሄዳሉ። አንዳንዶቹ በእግር ይሄዳሉ። አንዳንዶቹ በመኪና ይሄዳሉ። ሌሎቹ በአውቶብስ ይሄዳሉ። ስራ ቦታቸው ላይ በሰዐት ለመገኘት ሁሉም ይጣደፋሉ። .... ዋናው ሀሳብ፡ 1. ሰዎች ስራ ቦታቸው ላይ ለመገኘት በጠዋት ይሐዳሉ። 2. አንዳንድ ሰዎች ከስራ ይዘገያሉ። 3. በእግር ወደ ስራ መሄድ ጥሩ ነው።

Answers for Finding Main Idea Reading Comprehension test

1. **2**
2. **3**
3. **2**
4. **1**
5. **2**
6. **2**
7. **3**
8. **3**
9. **3**
10. **1**
11. **1**
12. **2**
13. **2**
14. **2**
15. **2**
16. **1**
17. **3**
18. **2**
19. **2**
20. **1**

Appendix- 3

Semi- structured Interview schedule

A. Interview Guide Questions for teachers

1. How do you rate the word identification skills of your deaf students compared to their reading comprehension skill?
2. How do you teach word identification skills of your deaf students?
3. What strategies do you use to improve the student's word identification skill?
4. How do you perceive the reading comprehension skills of your deaf students compared to hearing students of same grade level?
5. Are they with an average range of ability? If not, why deaf students have poor reading comprehension skills?
6. How do you teach reading for your deaf students?
7. What strategies do you use to improve the student's reading comprehension skill?
8. Is there any difference you observed between boys and girls with word identification and reading comprehension skills of deaf students in your class? If so, why do you think this happens? If not, why?
9. What practical problems you often experience in teaching reading skills for deaf students in your class?
10. What other things you need to share with me regarding your students?

Appendix 4

Observation check list

This checklist was utilized by the researcher to observe decoding and reading comprehension of pre- lingual deaf grade 5 students. The observation took place during the actual classroom teaching learning process.

- Date of observation _____
- Time of observation _____

N	Specific indicators	Not at all		Quite well		Not sure	
		Day 1	Day 2	Day 1	Day 2	Day 1	Day 2
1	Identifying actual words from pseudo words						
2	Passage reading						
3	Participation in reading activities						
4	Knowledge of word meanings						
5	Finding the main idea of a passage						

Declaration

I, the undersigned declare that this thesis is my original work, has not been presented for a degree in any other university and that all sources of materials used in this thesis have been dully acknowledged.

Name: Hanna Afework

Signature _____

Date _____

This thesis has been submitted for examination with my approval as a university advisor

Name _____

Signature _____

Date _____