

**ADDIS ABABA UNIVERSITY SCHOOL OF GRADUATE
STUDIES DEPARTMENT OF SPECIAL NEEDS
EDUCATION**

**BRAILLE SKILL COMPETENCE OF STUDENTS WITH
VISUAL IMPAIRMENT AT SEBETA BOARDING
SCHOOL FOR THE BLIND**

By:

ABEYA BIDIKA ABEKU

JUNE, 2014

ADDIS ABABA, ETHIOPIA

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

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Acknowledgements

First of all, I would like to thank Almighty God for all his help.

I would like to extend my sincere gratitude to my advisor, Fantahun Admasu (Ph.D) for his support and constructive criticism.

I am thankful to all my family and specially my wife, Meseret Alemu, for her continuous and unwavering support over the challenging times, and my daughter, Kekuwak, for her patience when I was busy even to talk to her.

I am also grateful to all my colleagues; Reta Kumsa, Gadisa Terefe and Beyene Dechasa for their support in every aspect of the study. My special thanks go to Ayelech Tesemma, who helped me in bringing this study into reality. Finally, I would like to thank the school management, teachers and students of Sebeta School for the Blind, Sebeta Town Education Office and Oromia Education Bureau for providing me with necessary data.

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Acronyms and Abbreviations

CWVI: Children with Visual Impairment

ENAB: Ethiopian National Association of the Blind

FDRE: Federal Democratic Republic of Ethiopia

IEP: individual educational plan

MoE: Ministry of Education

NGOs: Non Governmental Organizations

OEB: Oromia Education Bureau

PWDs: Persons with Disabilities

SNE: Special Needs Education

STEO: Sebeta Town Education Office

STVIs: Students with Visual Impairment

TGE: Transitional Government of Ethiopia

TVIs: Teachers of the Visual Impairment

UNESCO: United Nation Education Science and Cultural Organization

Abstract

The study is aimed to investigate the Braille skill of students in Sebeta School for the Blind. Even if the skill is taught in the school, students are heard as they are inefficient and have no full confidence to read and write in Braille. To deal with the study, basic questions such as how the teaching Braille skill is implemented in the school, whether the teachers have Braille competence, if the students of the school have achieved needed skill and whether there are opportunities help the students to enhance the skill of the students were designed and accompanied by objectives indicated that the students have no needed competence in Braille and also answer the questions. Relevant related literature could also be investigated in advance and qualitative method was designed for the implementation of the study. Interview guide questions, focused group discussion, Braille reading and writing tests and observation guidelines were organized to investigate data. The sources of data were teachers of Sebeta School for the Blind, the school directors, the resource center coordinator, grade four and grade eight students, STEO and OEB and they were totally 23 in number. Except one SNE professional among them, they were from different field of study. The data were discussed under the categories, i.e. the school Braille teaching implementation, the school teachers' Braille competence and the students. The result eventually showed that the Braille skill taught in the school has shortcomings, most of the students and the teachers are inefficient in the skill and though the school has opportunities, they didn't use them. Above all the Braille skill teaching of the school has no legal curriculum used. Taking these in to account, OEB, the school management, teachers and the students are recommended to play their roles to solve the problems. To reduce problems of curriculum and its standard, OEB primarily shoulders the responsibilities. Thus, the bureau should prepare legal curriculum, assign professionals of SNE focal at the bureau level and to the school management as well.

DECLARATION

I declare that this research thesis is my own work. It is submitted in partial fulfillment of the requirements of the Degree of Masters of Art in Special Needs Education. It has not been submitted before for any degree or examination in any university.

Abeya Bidika

Signature

Date

Advisor for Approval

Signature

Date

CHAPTER ONE

INTRODUCTION

1.1. Background of the study

In the history of school development for persons with visual impairments, there was no formal school and also Braille skill until the first school for the blind was founded in 1786 by Valentin Haüy in France. Haüy's interest in languages and their written representations were the important factors contributed to his growing involvement in the education of blind youngsters. He witnessed a humiliating exhibition of an 'orchestra' of blind beggars. Dressed up in ugly gowns, hats and cardboard spectacles without lenses, this group of beggars was caterwauling for the amusement of the public (Lorimer 1996). It was amusing only because it was performed by persons with disabilities who were not expected. Haüy was appalled by this performance and subsequently set out to argue against the contemporary belief that a blind person could not be educated.

In February 1786 l'Institut des Jeunes Aveugles was opened in France, Paris, the very first school which offered a general education to all blind children regardless of their gender, intelligence and class. (Lorimer, 1996)

The most difficult problem Haüy had to solve was to enable his pupils to read. He was not satisfied with the system of wooden blocks he had used when he started the first teaching.

According to Lorimer(1996), after Haüy had started the comprehensive education of blind children successfully, the rest of Europe followed promptly. Soon after the opening of l'Institut des Jeunes Aveugles in Paris, several schools were opened in the UK: Liverpool 1791, Bristol and Edinburgh 1793, London 1799 and Glasgow 1806. As a consequence, there was soon a varied offer of codes which were thought to give the pupils access to literacy.

According to Robert (2006), Braille has been an effective means of communication for people who are blind since 1829 when it was invented in Paris, France by Louis Braille. Louis Braille lost his sight at the age of three as a result of an eye injury. As a young boy at school, he became frustrated with the large and bulky raised letter alphabet used to learn reading and writing skills. Later in his life, a French artillery officer, Charles Barbier de la Serre, gave him the idea of reading by a tactile code. "Ordinary writing is the art of speaking to the eyes; that was discovered by Monsieur Barbier is the art of speaking to the fingers" (translation by Lorimer 2000).

They had to be scanned in circular motion. This was complicated further by the fact that the discriminating features are at the bottom of each cell which made recognition more difficult and slowed down the writing process (Lorimer 2000, Nolan & Kederis 1969). Thus functionally, Barbier's system was a code that had to be deciphered.

Louis Braille, then aged 12, had been present at Barbier's demonstration. Like his fellow pupils, he was extremely interested in this new system and tried to make it more suitable for his own needs. He therefore amended by reducing the size of Barbier's "12 dots system" in to "6 dots" as it is larger than the finger pad and the left-right movement of reading is 'interrupted' by an additional circulatory movement which is necessary to retrieve all information. The second improvement was substituting Barbier's phonetic system with the full alphabet. Braille continued experimenting with Barbier's code at school, discussing improvements with his fellow students (Lorimer 2000).

The result of these amendments, Louis Braille's system of embossed dots, was first published in 1829. It uses a 3x2 matrix in which a maximum of six dots can be embossed. The size of this matrix allows 63 possibilities for creating distinct characters. The basic unit in which these dots are placed is called the braille cell. This cell is small enough to fit under the finger pad in order to be perceived as

one unit in reading. Each cell is approximately 6mm high. The distance between the midpoints of two dots in the same row of a cell is about 1.5mm. The dots are just over a millimeter in diameter. The dots within a braille cell are numbered from one to six. Starting from the top, dots 1 to 3 are in the left column, dots 4 to 6 are in the right column. It could then be the most widely used script by blind people throughout the world.

One of the things make Braille writing different from ink print is that there is no scope for personal variation in braille writing. Handwriting does not exist in braille. Variation in fonts is not possible either, there is just one braille font; different 7 font types such as scaling, boldface, underlining and italics cannot be realised in the same way as print (Millar 1997: 35). Instead, they are indicated by a preceding functional sign.

The invention of Braille therefore could appear with incredible situation in the life of persons with visual impairment as it has liberated a whole class of people from a condition of illiteracy and dependence and has given them the means for self-fulfillment and enrichment (Nemeth, 1988,:316)

On the other hand, it could unexpectedly start to decline in different places. Although there is no consensus on the causes of this decline, a number of factors have been cited. Among them are: the rise in the number of visually impaired children with additional disabilities who are nonreaders (Rex, 1989), disputes on the utility of the Braille code (Thurlow, 1988), the decline in teachers' knowledge of Braille and methods for teaching it (Schroeder, 1989; Stephens, 1989), negative attitudes toward Braille (Holbrook & Koenig, 1992; Rex, 1989), and the greater reliance on speech output and print-magnification technology (Paul, 1993).

Braille was introduced to Ethiopia after about a century since its invention. According to Yibeltal, (2012), despite the difference of sources in how exactly it began, it is not in dispute that the history of braille in Ethiopia instigated in 1924. In 1952, the first residential school for the blind, which could later be transferred

to Sebeta, was opened at the heart of the capital. Following the formation of the first governmental school for the blind, in 1957, a group of ten blind students presented a petition to the prime minister of the time for an official recognition of Braille as a second writing and reading system. Thereafter, the opening of more and more residential schools and commencement of modern education is said to have promoted the use and a literacy of Braille.

Although the former history of Braille in Ethiopia is assessed as the above, regarding the practical importance of Braille in Ethiopia today, Yibeltal added that despite its nearly 90 years of history in Ethiopia, it is frustrating to see that Braille is not yet widely used in daily life of most blind people. The potential users of Braille today include elementary and high school blind students, college and university graduates, sighted special needs education teachers. He also assessed the frequency of their Braille use and found out that there is less practice and attention is given to the skill. The reason for low practice of Braille includes attitude, lack of resource, discomfort about social reaction, inconvenience and illiteracy or poor Braille skill. Moreover, it was depicted that there is an opinion that new technology is coming to replace Braille and do not see the need for Braille. Thus, this tendency of withdrawing from practicing Braille among the blind is due to curiosity about the technology and dissatisfaction with the general Braille service. On the other hand, Wittenstein & Pardee, (1996) found that 89.4 percent of the teachers surveyed in a national sample agreed that technological devices should be used to enhance Braille and not to replace it.

According to Frieman, (2004), although a great deal of technology is available to aid in the literacy of children who have some usable vision, computer voice programs, magnifying devices, audio devices, etc., these children also need a knowledge of Braille in order for them to reach their maximum level of literacy and self-sufficiency.

It was, therefore, essential to undertake study in order to identify the Braille competence of students with visual impairment of Sebeta School for the Blind and proved that they have faced problem; identified their requirements for Braille skill accessibility that can be implemented in the school context; assessed how the skill is taught in the school; and recommended solutions for the problems indicated.

1.2. Statement of the Problem

As it is already mentioned, it is almost a century since Braille is introduced to Ethiopia. Following this, different governmental and nongovernmental boarding schools for the blind could be established and it is obvious that they have been using Braille skills as a means of teaching. Regarding the Braille competence of students with visual impairment, the researcher directly raise Sebeta School for the Blind as it is the first governmental and residential School for the blind established in 1952.

Since it is school for the blind with long history, It is obvious that Braille skill delivery has been the main means of learning and also mandatory. regarding this, Ysseldyke (1992) indicated that by law students who are blind and or who show significant visual impairment are eligible for special education services and of these services, enabling to develop Braille competence is the main one; Moreover, the reality on the ground shows that Braille is the skill that can't be substituted and a means that changes the life of the persons with visual impairment; However, from the researcher's informal observation as well as from some rumors heard, the visually impaired students of Sebeta School for the Blind are poor in writing and reading Braille. The researcher usually gets the students who were students of the school and join Sebeta Special Needs Education Teachers College and could observe some difficulties they have. Thus, there are students who are not able to read and write even when they leave the boarding school completing grade 8 and in this regard, what the school is contributing and how far the significance of the skill is considered and supported with meaningful plan, resources and skilled man

power could be touched and finally, the study indicated the competence of the students in Braille, answered the basic questions raised in the research as well as recommended expected solutions for the challenges of the skill identified.

For effectiveness of the study, the following relevant leading questions were raised:

1. How is teaching Braille skill implemented in Sebeta School for the Blind?
2. Do teachers possess the required skill to teach Braille?
3. Do students acquire and demonstrate Braille skill?
4. Are there opportunities available to enhance the Braille skills at the school?

1.3. Objectives of the study

1.3.1. General objective

The study was conducted mainly to identify if there is Braille competence problem with Sebeta School for the Blind students.

1.3.2. Specific objectives of the study

The specific objectives of the study were to:

1. Describe the implementation of Braille teaching.
2. Indicate the Braille skill of teachers in the school
3. Identify if the need of the students is met up with the skill taught
4. Indicate available opportunities to enhance the Braille skill of the students at the school.

1.4. The significance of the study

This study will help the students with visual impairment in showing the appropriate way of developing Braille competence. Besides this, it will give meaningful direction to the curriculum designers and policy makers when they

work on Braille skill. It can also show the school management the method of overcoming the challenge of the Braille competence identified in the study. Moreover, it may provide important information to other schools for children with visual impairments about Braille education. It will also be an initial study for the other researchers.

1.5. Delimitation and Limitation of the Study

1.5.1. Delimitation of the Study

The study is delimited to this particular school though there are other similar residential schools for the blind like Welayita Sodo School for the Blind, Shashemane School for the Blind, Bako School for the Blind, and Mekele School for the Blind; Moreover, in spite of the presence of some other issues like physical accessibility, problem of mobility, challenges of inclusive education to the Persons With Visual Impairment, shortage of material resources, and attitudinal barriers, the researcher chose this particular topic as all issues may not be manageable at once.

1.5.2. Limitation of the Study

Due to absence of previous researches on the topic, the researcher faced shortage of materials to strengthen the review of literature more. In addition, absence of proofreader before it was printed, shortage of time, shortage of finance to hire reader shortage of Braille paper and Perkins made the study challenging to the researcher.

1.6. Definition of Terms

Visual impairment: refers to students who cannot successfully use vision as a primary and efficient channel for learning but use Braille, or other non-visual media. Throughout this study, visual impairment is to show all students given opportunity to attend in the school using Braille skill as the means of learning instruction.

Braille competence: refers to the ability to use Braille reading and writing, Braille contraction and Nemeth code (Braille Mathematics) efficiently and successfully.

Slate: is a pocket-sized or desktop two-part hinged device. The top part contains rows of rectangular openings corresponding to individual braille cells which guide the stylus while the bottom part has rows of indentations arranged in cells allowing the stylus to emboss dots on paper.

Stylus: refers to a small handle made of wood or plastic with a sharp metal point used to emboss dots in the cells found in Slate.

CHAPTER TWO LITERATURE

2.1. Historical background of Braille

Many realize that the Braille code is a means for blind people to be literate, but few know why it is called the Braille code or what led to its invention and its acceptance today. Many centuries ago, when the versions of alphabet were first used by those with sight, it was accepted that blind people would not be able to take part in the normal life of their community. That acceptance constituted the reason a suitable code for reading and writing was not available until comparatively recently (Lorimer, 2000).

In the early 19th century, the development of Braille was a major breakthrough in the education and consequently in the living prospects of blind people. As a result, in 1878, an international congress about tactile writing systems was held in Paris and the delegates agreed on a general adaption of Braille (Lorimer 1996).

In 1949, the UNESCO started a survey on the world-wide use of Braille with the task of establishing international uniformity. Braille has continued to develop and its usage has been extended to most countries of the world. Even in languages such as Arabic, Chinese or Urdu which have a writing system different from the Roman alphabet, blind people learn to read and write their language using this six dot pattern (UNESCO: 1990).

Today, Braille is used world-wide. Most languages not only have a Braille alphabet, punctuation signs and numeral signs, but also use a language-specific shorthand system and a set of contractions. The main purpose of contracted Braille is to increase reading speed and reduce bulk by introducing abbreviations for high frequency words and letter sequences.

2.2. Pre-conditions in teaching Braille

Before the real teaching Braille skill begins, there are steps to be followed so that the children develop fertile ground to easily understand when they are exposed to the regular class and be successful. According to Pierangelo et al. (2007). Pre-Braille skills are skills designed to increase tactual awareness and perception in individuals who will learn to read and write Braille in the future. Thus, systematic building of skills in toddlers and pre-schoolers will facilitate learning to read and write Braille in the opportunity. Skills to build include: concepts such as same and different, tactual awareness and perception, and fine motor such as exploring objects with hands and using hands cooperatively.

Hence, It is pointed out to Start by teaching the concepts such as: Rough or smooth, soft or hard, small or big, same or different and sorting by different characteristics etc. In fact, the order in which we should teach these concepts isn't so important, but the concept of same or different should be the last concept that we teach. It is also advisable to use these concepts by using things found in classrooms, bedrooms, outside the classes and the things generally found in the real world in our environment and to teach these objects:

Starting by introducing the idea of rough and showing all of the rough items found around. Here, using lots of descriptive words is important. After showing the rough, introducing smooth and talking about how the objects feel slick to the touch and how our fingers glide over the object without getting stuck.

Following the introduction of both smooth and rough, mixing up them and asking to identify the items as either rough or smooth, big or small, soft or hard, shapes and sizes, length and width etc. and continuing until the children be able to

perfectly identify by sorting out mixed items that show their mastery in their tactual skill is suggested. These activities help build a child's auditory, tactual, conceptual, and language skills. The emphasis in this program is on exposure to a variety of common childhood experiences. (Pierangelo et al., 2007).

2.3. Procedures followed to teach Braille skills

As some scholars suggested, all children require early experiences to provide a foundation for understanding what they read. For reading to be meaningful, the child must be able to relate what he or she read to previous experiences (Hall & Rodabaugh, 1979). Without direct experiences, the children may read and write words correctly, but not truly understand what they are reading and writing about (Koenig & Farrenkopf, 1997). The visual impairment may impede incidental learning and opportunities to gain access to naturally occurring experiences in the environment. Visually impaired students need direct, hands on practice with basic concepts (such as size, shape, position, time, classification), as well as, direct exposure to common everyday life activities so that they form a foundation of essential experiences that provide meaning to reading and writing. In short, after their developing these essential experiences is confirmed, they are taken to the real learning of Braille skills, that is , reading and writing.

2.3.1. Teaching Braille Reading

It has long been observed that fluent braille readers typically show smooth, rhythmic, flowing lateral movements in prose reading (Burklen, 1932; Grunewald, 1966; Kusajima, 1970). There has been considerable speculation about the functions of the two hands when both are used, and how these may relate to fluent reading. The hypotheses have varied widely. The first hypothesis under test here was that the two hands in continuous fluent reading actually read two different portions of text simultaneously. (Burklen, 1932), and that such parallel processing provides the main difference in speed between fluent and slow

readers. The other main hypothesis was that although the two hands move together, they function differently. One hand, usually the right, is concerned with gaining a preview of the meaning or 'gist' by a rapid survey of subsequent sentences in advance of the left hand, while the left hand follows behind and is concerned with checking specific features of Braille letters or words (Kusajima, 1970).

The hypotheses have important implications both theoretically and for training two-handed skills, and were therefore tested explicitly.

According to Mangold, P. (1985), the following points should be considered when teaching Braille reading is carried-out:

1. Age of onset of visual impairment or blindness
2. Tactile discrimination – experience/ability
3. Does the student already know how to read contracted vs. uncontracted?
4. Selecting a Braille program

As to her, some skills that needed to be developed by following the above points are: Proper finger position and hand movement, Line spacing – single, double or triple, Interposing (both sides): here, interposing Braille – makes visual reading easier for teachers of visual impairments or TVI's when proof reading if there is relating print page numbers and format to Braille page numbers.

In addition, Proper finger position is necessary for fast, accurate and efficient Braille reading and using the two hands therefore is recommended as on the criterion of reading used in different studies, the right hand should touch a new letter on the previous line at the same time that the left hand has moved to at least one new (not yet touched) letter on the new line (Millar, 1987 a).

In all these activities, it is recommended to use; good quality Braille paper, Single use materials can be produced on regular bond paper and Customized materials-produced using translation programs (Duxbury, Braille 2000 etc.)

Compared to visual reading, touch reading is slower and the techniques used are different. In visual reading, there is an alternation of movement (saccade) and pause. In the pauses, the fixation takes place and information is gathered from the printed text. The perceptual span extends further to the right than to the left: about 15 letters or spaces to the right and three to four to the left of fixation (Ellis 1993:13). In contrast, in touch reading, information is gathered during movement (Hampshire 1981:103)

2.3.2. Teaching Braille Writing

Before we start teaching writing, it is advisable to check the available materials. According to Barraga and Erin (1992), the choice of appropriate equipment and the use of efficient instructional methodology can make a critical difference in success in learning for the child with visual impairment. These choosing writing devices can include: Perkins, Slate and Stylus, Electronic device etc. Before the teaching takes place, there should be the concerns of age of student, finger size/strength, additional physical and intellectual challenges, what technology locally available, whether technical support and repair service etc. are available. It is by considering all these realities that the well skilled teachers deal with their teaching and enable the students develop the skill.

2.3.3. The Braille contraction and its importance

The main point in having contractions in Braille at all is to save space and time. Certainly contracted Braille makes written communications and books a good deal less bulky and cumbersome. Investigations which assess the frequency with which contractions occur in a variety of books and written communication have shown that contractions vary very greatly in the frequency in which they occur,

and consequently how much they contribute to saving space (Lorimer et al., 1982) have shown that some contractions occur only very rarely in a wide variety of Braille books.

There are several different types of contractions. Some words and letter clusters are represented as single characters or single characters preceded by one to three dots. Some are abbreviations, more like short-hand, and preserve important letters (e.g. tm=tomorrow, yrvs=yourselves, BEc= because, Bet=between) in relatively common words. Contracted forms that are abbreviations for some low frequency words (e.g. conceiving= CONcvg) occur infrequently, and almost by definition, therefore, save little space (e.g. Lorimer et al., 1982).

As we shall see, the familiarity of contracted forms and how they are embedded in words has important effects on recognition.

Following the usual convention of representing single character contractions by consecutive capitals, the words represented by the letters of the alphabet look like this to the brail list:

a=A; b=BUT; c=CAN; d=DO; e=EVERY; f=FROM; g=GO; h=HAVE; I=I;
j=JUST ;k=KNOWLEDGE; l=LIKE; m=MORE; n=NOT; p=PEOPLE;
q=QUITE; r=RATHER; s=SO; t=THAT; u=US; v=VERY; w=WILL; x=IT;
y=YOU; z=AS.

Other single patterns, based on the whole Braille cell (called ‘upper contractions’) represent further common function words (AND FOR OF THE WITH) when standing alone, and some represent letter combinations within words, but function as whole words on their own. From the time of their formation, there was common consensus about Braille contractions as they were to be included if they fulfilled the following criteria:

1. No omission of letters except in some words of very common occurrence, and where this omission cannot lead to incorrect spelling

2. To abbreviate by allowing characters to stand for groups of letters
3. Not two meanings for the same sign
4. To assist the memory by allowing the groups of letters to occur in alphabetical order
5. Not to use contractions except in words or groups of letters which occur very frequently
6. Representation of common words by their initials (Armitage, 1870:195 quoted in Lorimer 1996.)

2.4. Effective instruction to develop competence

With the exception of unique problem of visual input and possibly a greater demand in processing, the fundamental learning procedures of blind children do not differ from those of the sighted children. The goal of special education for students with visual impairments is the same as it is for other students with disabilities-facilitation of learning; and this may require teaching students to make use of remaining sensory abilities and or helping them learn to use other abilities to compensate for their disabilities (Lewis & Doorlag 1995). Besides this, Ysseldyke & Algozzine, (1995) said that all students are not alike and the goals and objectives of instruction are not the same for all students.

They also added that schools are becoming increasingly diverse environments that are why instructional planning is such an important part of teaching. The teachers' method of instruction is the key to conduct the teaching-learning process to progress effectively. If the teaching method of instruction is attractive and facilitating one, the intended educational goal will be promoted; if not, the teaching-learning process might be crippled or handicapped at all depending on the method employed. Concerning this idea, Silberman ,(1981) stated that the human race possesses internal or mental heritage drives that can be adjusted in to learning experience both intrinsically and extrinsically of which the former style

of motivation has grounded fate for the learners' eagerness, willingness and competence there by allowing them to participate to wards the subject matter.

Regarding method, Barraga & Erin, (1992) explained the choice of appropriate equipment and use of efficient instructional methodology can make a critical difference in success in learning for children with visual disabilities. Booth & Swann, (1992) therefore explained that effective education, experience and training can significantly reduce the handicaps which may arise from disabilities.

Concerning effective instruction, Ysseldyke & Algozzine, (1995) stated that, in many principles of effective instruction, it can be grouped in to four broad areas such as: planning instruction, managing instruction, delivering instruction and evaluating instruction. Thus, Scholl, (1986) said that the unique needs of individuals must be taken into consideration as one of the plans and execute program of instruction.

To do this, Ysseldyke and Algozzine, (1995) stated that an individualized educational program (IEP) is written statements that describe what teachers and other professionals will do to meet the special learning needs of students who are exceptional.

Regarding the needs, Matie & Curry cited in Shea, (1994) reported that there are three sets of needs that must be addressed if schools are to provide services for learner with visual impairment: needs that can be met by adapting the curriculum, needs that require changes in teaching method but not curriculum or objective and needs that are the direct result of visual impairment that cause a lack of incidental learning.

In addition, Mitchel & Brow, (1991) stated that individual with disability can function effectively with specialized intervention or modification of environment. On the other hand, Ysseldyke and Algozzine, (1995) discussed that students with

special learning needs are being taught in a variety of instructional environments designed to meet their unique learning needs by specially trained teachers who use many of the instructional approaches and activities used with students who are not considered exceptional.

To add another, Clark, (1995) stated that special needs students need more resources require more instruction time, other learning methods or specialized professional knowledge. Lewis & Doorlag, (1995) on their part also said that special education for students with sensory impairments may be provided in special class or resource room in many cases students remain in the general education and receive special instruction material or equipment to supplement or enrich their educational program.

As far as education is concerned, Silberman, (1980) stated the following: True education deals with knowledge that is recognizably worth-while and capable of achieving a voluntary and committed response from the learner, leads to a quality of understanding that encourage the exercise of judgment by the learner and the use of his critical faculties. In a sense, education is society's cultural reproductive system.

2.5. The use of assistive devices

Assistive devices are tools which support teachers to present subject matters or ideas tangibly to entertain learners, they are also known as teaching materials that facilitate the teaching-learning process, supporting this issue, Collahan & Clark, (1988) stated the following. Today teachers still depend on teaching tools to make their teaching effective and interesting; to make things clear, to make instruction real, to specie up the teaching learning process, and to make it possible for pupils to teach themselves.

As it is stated above, the role of teaching aids or tools are so great in maximizing teachers' time to present his or her lesson there by increasing the learners' motivation and gives life to the topic to be learned. In fact, the assistive devices used by the visually impaired people are different in that they are tactual so that the learners can easily touch and understand the message conveyed. In addition, the writing materials, like Slate and Stylus, Perkins or the other kinds of Typewriter, Embossers, etc. should be available as the skill is life skill and irreplaceable means. They are also expected to develop skill of manipulating all the devices.

2.6. Factors affecting Braille skills

2.6.1. Controversies among scholars

It is obvious that every individual is expected to have accuracy as much as possible in his/her skill of reading and writing. In this regard, studies show that people with visual impairments' improvement in Braille literacy has been focused in U.S. It has always seemed self-evident that the chance for success and to share in the American dream increases in direct proportion to their ability to read and write effectively. However, while their common sense of some has told them that people with visual impairment must master Braille to succeed, supposed common sense has also told many in the field of special education that such skills are not important for the people with visual impairment and that tapes or computers or large print or magnification devices can be just as effective as (or maybe even more effective than) reading and writing Braille.

Regarding the above ideas, Ryles, (1996) suggested that there should be study, not merely applying common sense and using anecdotal experience, but examining empirical data derived from an objective, professional study. The results are not only interesting but enlightening and instructive. As to her, we can

only hope that an entirely new body of knowledge is emerging—data that once and for all can settle the question of the critical need for Braille for all people with visual impairment who cannot read print easily, rapidly, and steadily.

Following controversies on the importance of Braille literacy, there was observable Braille skill declining for example in America and different people used to suggest different causes for its lacking progress (Ryles, 1996). The disagreement of the professionals on the importance of Braille literacy and the other concerned bodies along with the invention of speech software technology could accelerate the decline. Thus, the decline in the number of Braille readers since 1963 (American Printing House for the Blind, 1991) has been widely discussed by professionals and censured by consumer groups (Rex, 1989; Schroeder, 1989; Stephens, 1989).

2.6.2. Actions taken to solve the declining of Braille skills

Pressure from consumers and advocacy groups has led twenty-seven (now twenty-nine) states to pass legislation mandating that children who are legally blind be given the opportunity to learn Braille. These laws have created further controversy in the field (Rex, 1992; Schroeder, 1992). Whereas professional groups such as the Council of Executives of American Schools for the Visually impaired, have called for a renewed emphasis on teaching Braille (Mullen, 1990), others have stressed that Braille is only one educational option (Paul, 1993).

In her study, Ryles showed that the impact of Braille reading skills on the subjects' employment rates was significant—with qualifications. Having a knowledge of Braille, even as a primary reading medium, did not increase a subject's chances of employment, but those who had learned to read Braille as their original reading medium and used it extensively were employed at a significantly higher rate.

Thus the early acquisition and extensive use of Braille reading skills were the two factors that had a strong impact on employment rates. In this society, the ability to read well is highly valued. It is an ability to which school districts devote copious or numerous amounts of funds and resources. Classroom teachers spend countless hours coaxing or persuading children to develop the lifelong habit of reading. They spent substantially more time reading, read more books, and subscribed to more magazines.

Thus, in her study she suggested that teaching Braille as an original primary reading medium to children with visual impairments may encourage them to develop the positive lifelong habit of reading as adults, enhance their later employment opportunities, and thereby increase the possibility of financial independence.

In short, it was indicated that the shortage of qualified teachers, as well as researchers, has contributed heavily to the problems the field now faces. Without qualified teachers, alternative skill, such as Braille, which is specific to individuals with visual impairments, will by necessity be taught so frequently that they will eventually become all but extinct. If omitting Braille reading instruction from the curriculum of visually impaired children is suggested, it may well create a handicap far more debilitating than blindness—chronic unemployment (Ryles, 1996).

2.7. The role of school management and teachers to enhance Braille literacy

It is obvious that there should be a close examination and assessment of the relationship between the organization/school/ and its objectives. According to Flexi & Spungin, (1978), school authorities need to evaluate how many of the developed educational objectives are attained and how many are still unattained. The assessment or the evaluation program has to have a continuous nature. This

needs follow-up of the management team that closely sees the day-to-day operation of a school.

The schools have to be aware of the students' needs, problems, wishes and their total welfare, progress and overall development in addition to their daily academic performance. This is because the fulfillment of the students' overall development is an indirect response to social problems.

Evaluation, when seen in educational context, is an essential part of the teaching-learning process. DuBose & Langley, (1977) pointed out the following values of evaluation in addition to its importance in judging how well teachers and learners are going at school. These are:

1. Helping teachers and learners, as well as other interested groups and individual: to clarify educational goals.
2. Gathering information that indicates the extent to which goals are being realized.
3. Helping teachers and learners to determine whether the teaching and learning activities are actually being used and have been aiding programs towards the desired goals.
4. Gathering information that provides clue to how goals might attain more reading or how the goals themselves should be modified.

As DuBose & Langley, (1977) progress reports; hence, provide students with general picture of how they are doing in attaining educational objectives. On the other hand, reports to the immediate higher officials make them have information on the objectives of the school and the progress the students make towards attainment of educational objectives. This can hopefully be resulted in taking immediate action in case some difficulties encounter the school teaching/learning activities.

The educational needs of student with visual impairment is different from those who are not blind (Spungin,1984).For primary students before starting brailled teaching, it's important to assess their mental development ,readiness or their achievement and help them to develop their tactile activities. Because the appropriate experience for developing perceptual skills to the refined stages of symbol recognition would need to become part of the child's readiness curriculum(Barraga,1992).Such mechanical skills as hand movement ,finger position ,finger dexterity ,wrist flexibility ,light finger touch and tactile perception and discrimination have been identified as precursors to efficient Braille reading,(Mangold,1978).

As idea says teachers who teach children with visual impairment have to describe the following activities:

- All IEPs for children with visual impairment must address the issue of Braille
- Evaluate the child's reading and writing skills in educational needs
- provide instruction in Braille
- Allow the child to use Braille

The decision whether to use Braille with any student cannot be based on factors Efficiency in Braille reading requires through knowledge and recognizes of the symbols therefore training in recognizing Braille symbols as a means of increasing reading speed should be emphasized very strongly by teachers (Mangold, 1978).

2.8. Some techniques suggested developing Braille to lifelong skill

There may be different techniques help to eternalize Braille skills. According to Jfloyd (2005), writing notes and letters in Braille to other teachers of children with visual impairment and asking them to write back, becoming a Braille pen-pal with a child or adult who is just learning Braille so that this will give both the opportunity to practice Braille skills, carrying a small slate and stylus on which to take short notes, and when taking notes in print, using Braille contractions to keep

the short form words and whole cell contractions in mind and automatically write them in Braille. In addition, Practicing by reading Braille books designed for young children, which often have simpler vocabularies and fewer words than materials brailled for adult use, practicing reading these books aloud to a group of children who have never seen Braille in order to share enthusiasm for Braille literacy with them etc. are strongly recommended (Jfloyd, 2005).

As it is clearly mentioned above, getting exposure for practicing the skills enables one to master in a short time and simple way. The exposures mentioned themselves are appropriate disclosures that can with no doubt enhance love to field and particularly to the skills.

CHAPTER THREE

METHODOLOGY

3.1. Design of the Study

Obviously, the main objective of this study was to assess the Braille skill competence of students with visual impairment at Sebeta School for the Blind. In the study, the strength of the students in the skill and the challenges they might have not noticed were clearly described. Therefore, to achieve these objectives, the researcher attempted to employ purely qualitative research.

Using these methods, the researcher conducted study on the Braille teaching implementation. Thus, the Braille skill teaching at Sebeta School for the Blind and whether the students are dealing with an appropriate learning techniques that help to develop competence were elaborated in the paper.

3.2. Population and Sample

Sample participants were selected from different school community(68 students and 35 teachers) i.e. the school director and vice director, four visually impaired Braille user teachers of the school, four other subject teachers of the school, one teacher with no disability but teaches Braille in the school, the school resource center coordinator, four (two male and two females),with the intension of increasing equal participation, students from grade 8 among 37 total number of the students, four students (two male and two female) from grade four among 31 total number, the vice head of Sebeta Town Education Office and one supervisor, one SNE focal person or concerned body from Oromia Education Bureau. The research sampling engaged random sampling and purposive sampling techniques. Random sampling technique was applied to conduct with students with Visual Impairment and purposive sampling technique was employed to represent the Braille subject teacher, two officials from Sebeta Town Education Office, the two school directors, the four teachers with visual impairment, the school resource

center coordinator, the four teachers with no disability, and one SNE focal person from Oromia Education Bureau.

The basic criterion for the sampling was based on the direct and indirect relationship they have with the issue of teaching and learning Braille at the school. These were purposefully selected because there is an assumption that they would have full information to give essential information to the researcher. Hence, sources of data were the intended participants who are 23 in number.

3.3. Data Collection Instruments

The implementation of Braille teaching and competence of the students with visual impairment at Sebeta School for the Blind required the study to be multifaceted necessitating the use of qualitative research methods. Accordingly, four methods of data collection were employed.

3.3.1. Testing the Braille skill competence of the selected students with visual impairment

The data collection instrument prepared for testing was to practically check the reading and writing skills of the students. To deal with the issue, four students from grade 4 and four students from grade 8 were presented with different writing and reading competence.

These tests were based on some lesson contents the students attend in their respective grades like Afan Oromo and English for grade four and Afan Oromo, Amharic and English for grade eight. The words prepared for the Braille reading and writing tests were believed to be from the students' textbooks as the words are familiar to the students and to their standard level. Therefore, 10 words were prepared for reading and 10 more words were selected for writing from Afan Oromo and 20 words for reading and 10 words for writing were from English

textbook for grade four students and 50 words for both reading and writing, whereas, Amharic was included for grade eight students. They were given Braille reading (ten words), and writing (ten words) in Afan Oromo, reading (twenty words), and writing (twenty words) in Amharic and reading (twenty words), writing (twenty words) in English and total 100 words.

In addition, the English part prepared for both grade four and grade eight included grade 2 Braille contraction. Here, for the manageability of the data collected from the test, it was a good opportunity for the researcher as he has the skills.

3.3.2. Interview

Interviews were conducted to one teacher with no disability but teaches Braille in the school, school directors including the vice director, the head and one supervisor of the Town Education Office, Oromia Education Bureau SNE focal person and the school resource center coordinator.

3.3.3. Focused group discussions

The focused group discussions were with four teachers with visual impairment, four teachers who are teaching the other subjects rather than Braille skills, and four students with visual impairments of grade 8.

Some of the questions prepared for interviews and focused group discussions for different respondents were also similar and the same. The questions prepared under both interviews and focused group discussions gave attention to how Braille teaching has been implemented in the school, the Braille competence of the school teachers, the Braille competence of the school students with visual impairment and opportunities the school has to help the students and teachers to improve their Braille competence. By the face-to-face interrogation, participants were expected to express their inner opinions and feelings. Furthermore,

interviews carried-out with the participants could confirm the information obtained through the Braille reading and writing tests.

3.3.4. Observations

To strengthen the evidences found with the rest techniques, the researcher conducted observation by developing checklists and observe grade 4 Braille teaching, Grade 8 English class and the school resource center service.

3.3.4.1. Grade 4 Braille class teaching observation

It was conducted by giving attention to the activities of the teachers, the lesson contents, activities of the students and their attention to the skill, available materials both the teacher and the students use in the classroom with the observation in relation to their contribution to the skill directly.

3.3.4.2. Grade 8 English class observations

This particular subject was chosen as most of the works of the school subjects are given in Afan Oromo and the only subject can give the competence of the students to deal with international Braille skill was supposed to be this particular subject.

Thus, activities of the teacher, activities of the students, indirect attention given to the Braille skill by both the teacher and the students and available materials used in the class were observed.

3.3.4.3. Resource center observation

As the center is one of the areas believed to support the competence of the students, observation was carried-out by giving attention to the efforts of the coordinator to support the students and the teachers, the frequency of the participation of the students and the teachers, the need and the satisfaction in the

service, competence of the coordinator to support them, available materials to be used were clearly observed.

3.4. Data Collection Procedures

Actually, approval to conduct the research was made through discussion with Sebeta School for the Blind director.

Then, all logistic issues such as finalizing data collecting instruments, providing orientation for respondents, deciding specific schedules or dates, time and venue to meet with the respondents were designed. During FGDs, there were note taking and voice recording based on the condition.

Here, the entire instruments for data collection were prepared in English language, but were translated in to the first language (Afan Oromo) of the respondents to grasp the real information essential to the study. Interview guideline questions, observation checklists and focused group discussion question guidelines were prepared ahead before the real research work was launched depending upon the leading question but revised and used according to the real situation of the respondents. Vital and contributing points to the document analysis were also prepared and administered accordingly.

3.5. Methods of data analysis

The data analysis was made through qualitative approach, describing each phenomenon in words. The entire data collected through test documents, interview guide questions, focused group discussions and observation were qualitatively analyzed in respect to different major categories of each leading question such as:

1. How is Braille teaching is being implemented at the school?
2. Do the teachers have appropriate skill to teach Braille?
3. Are students competent in Braille skill?
4. Are there opportunities available to enhance the Braille skills at the school?

This approach was selected for the reason that the study mostly focused on observable Braille skill challenges and successes that can affect educational performance of these particular school students with visual impairment that can more be described in words than in numbers.

CHAPTER FOUR

RESULT

This chapter presented all data obtained using interviews, focused group discussions, tests and observation analysis. Results of the study is presented in this section in the following order

4.1. Demographic Characteristics of the Participants

Table 1
Teachers and office participants' personal detail

	Participant	Sex			Educational Qualification			Field of study					Service			
		F	M	Total	B.A	Dip.	Tol.	S.S.	N.S	Lang	S.N.E	Total	3-7	10-32	To.	
1	School															
	Director	1	1	2	1	1	2	2	-	-	-	2	1	1	2	
	Teacher	6	3	9	2	7	9	4	-	4	1	9	4	5	9	
	Resource center co.	-	1	1	-	1	1	1	-	-	-	1	1	-	1	
	STEO	1	1	2	2	-	2	2	-	-	-	2	-	2	2	
2																
	OEB	1	-	1	1	-	1	-	1	-	-	1		1	1	
	Total	15					15	9	1	4	1	15	6	9	15	

Regarding the educational profile of all participants, six of them (four female and one male) were BA, one female BSc, eight of them (five male and four female) were with diploma level, four student (two male and two female) students were grade eight and four (two male and two female) students were grade 4; total 23 respondents in all activities such as interview, focused group discussions, Braille reading and writing tests and observations.

Regarding their field of study, two BA in Educational Plan and Management, one BA in SNE, one BSc in natural Science, one BA in Social Science, one BA in Afan Oromo and three diploma in Social Science, two diploma in HPE, two

diploma in Afan Oromo, two diploma in English, and the rest eight participants are grade four and grade eight students.

4.2. Analysis

The data gathered from different respondents were interpreted in respect to the categories deal with the basic questions. Even if they were presented to different respondents in distributed way during data collection, they are organized in the method they show the four areas of attentions such as: the Braille education at Sebeta School for the Blind, the Braille competence of the school teachers and students, and opportunities they have to promote the Braille skill of the school students with visual impairment.

1. Braille education at Sebeta School for the Blind

Regarding this thematic area, questions were presented to different respondents and the responses of different participants are organized as indicated below.

In respect to the guiding principles OEB and Sebeta School for the Blind have towards Braille and Braille teachers, the school directors responded that regarding Braille skill, live alone to have guideline and principles, their school doesn't get appropriate curriculum, syllabus, teachers guide and student textbook from OEB and even no any constructive follow up and support for the skill. They added that they are not sure that OEB has recognized the importance of the skill to prepare its curriculum. They made clear that teaching the skill of Braille in the school is implemented with the professional support they have been getting from one of the Braille teachers of the school. They said that they are using the manuals and books prepared for each grade by this teacher.

From the trend of the school, the skill has been taught for about 50 years but no document they got regarding the curriculum they were based on. They added that because of this, they have never thought that the curriculum has got problem.

For the same question raised to Oromia Education Bureau SNE focal person, she replied that it is a recent time that she was given the responsibility as an additional duty and because of this, she has no idea about the Braille curriculum and no document she got; However, she said that it is known that the students get the skill in different Special Schools including Sebeta School for the Blind particularly in the school resource center; Further more, she added that the region has no mandate to prepare curriculum yet adapts in its contexts the curriculum prepared at federal level. According to her, no Braille curriculum adapted at federal level to adapt to the region and no request was also raised to the federal government. Regarding the former curriculum of the school, one of the staff members with the visual impairment and with a long experience in the school suggested that the moment the school started its work, four teachers were sent to Israel and trained in Braille and came back with the skill and started teaching Braille in the school. However, still no document shows the detail issue about that curriculum they came back with.

Regarding the grades learn Braille as a subject, time allotment from grade to grade, the number of the student in each class and the teacher's ratio, issues of pre-Braille learning,

The school Braille teacher involved in interview was asked and she responded that students found from grade 1 to grade 4 take Braille as a subject. The skill is given to each grade with three contact hours and she added from her experience she used to teach at another School for the Blind grade 1 to grade 6. But after she was transferred to Sebeta School for the Blind, she could understand that the trend of the school was teaching from grade 1 up-to grade 3 and even improving it to grade 4 itself was with her negotiating with the school management. Regarding the class contact hour, the time allotment given for Braille skill is three contact hour weekly, and the number of the students doesn't exceed maximum 15 in one class makes it manageable.

In connection with the procedures help to teach Braille in the school, finger use technique, object identification, associating name and object, improving finger sensitivity and the related, the Braille teacher explained that the procedure of Braille teaching of the school is determined by the teachers themselves unlike the other subjects. Because, Braille has no any organized curriculum, syllabus, teachers guide and students' textbook. The only thing that the teachers consider when they teach Braille is that there is consensus in the staff among the teachers of the skill that Braille teaching should be completed at grade 4 and also Braille contraction should be mastered when they complete this grade. Bearing this in mind, every teacher adjusts his/her teaching with the pace enables him/her to complete every needed content of the skill.

Regarding the techniques the students should follow to learn the skill, finger use technique is given them immediately as they start grade 1. Things help them to develop their finger sensitivity like rough pieces of wood, sugar, pieces of cloth, bids, sand, cubarism board and bids and abacus are presented to them before they are exposed to the real Braille teaching. She added that these things enable them to identify similar and different things, develop the strength their finger muscles, improve sensing ability and develop good preconditions for Braille learning.

According to the respondent, these techniques were developed in the pre-Braille class from their former experience yet this there is no pre-Braille class in the current education policy. Thus, the students are forced to develop these techniques at the very beginning of grade 1 and then pass to the next step or some times, learn side by side.

Here, she added it takes two to three weeks to some students to develop this pre-condition though there are some who take even years to be able to start the real Braille learning.

For the same question presented to students in the focused group discussions, they replied that from the trend of the school, the moment they join the school for the first time, their seniors show them something about Braille informally and then they said when they are exposed to formal class, some tactual materials first and then, step by step given Slate and Stylus. According to them, when they start to learn real Braille, they start by learning the six dots found in a cell of Slate that represents different letters and then reading and writing techniques are the procedures followed. They added that they complete Braille grade 1 at grade 1 and 2. Then, Braille contraction or Braille grade 2 is started at third grade and completed at fourth grade.

Regarding the role of resource center of the school in Braille teaching activities, the center coordinator was asked and he replied that the center was organized four years ago by one charity organization known as Mediterranean NGO which was originally from Spain and it was also equipped with different tactile materials specially used for the Braille skill beginners. He added that these tactile materials help the students with visual impairment to improve their sensing by touching and identifying different objects with size, roughness or smoothness, Etc. are exercised in the center mostly by new beginners.

In relation to keeping the standard of the Braille skill taught at the school, the school director and the vice director replied that they are not sure whether the skill delivered in the school is standardized or not. What they know is that the teacher is preparing teaching manual and they are using it and no one stopped them recognizing its being not curriculum prepared by legal body. Eventually, they suggested that they don't know what OEB is doing in the area. Here, they admitted that they should have done on getting recognition for the work of the teacher at the school.

The same question and their plan they have for future to enhance the skill was also presented to Sebeta Town Education Office respondents and they replied that as it is already mentioned, the absence of legal curriculum on the Braille skill is

the most challenging one. According to them, a lesson given at the absence of legal curriculum in the first place is not vital and even teaching itself maybe crime. In addition, to make specific, they explained that they have been reporting the absence of Braille curriculum, syllabus, teachers guide and students textbook in the skill to Oromia Education Bureau (OEB) and have not got positive response yet.

They added that their responsibility is mostly giving overall supervision and trying to support with some possible things; However, they said the problem of the school is directly solved by OEB and as to them, their plan is frequently communicating the Bureau to get feedback for the reports regularly submitted to them.

Regarding the Braille teaching materials they have in their school and their ability to use, the Braille teacher who was one of the interviewees responded that there are in the resource center of the school particularly materials used for the beginners and there are some slates and stylus only. She added she can use the Braille materials such as Slate and Stylus, Perkins (Braille Typewriter mostly made in America and South Africa), and Mulburg (Braille Typewriter made in Germany) and thermoform (machine used to photocopy Braille print) In fact, the currently used and available material in the school are only Slate and Stylus. The rest are not functioning as they were broken down and not repaired for use. Some available materials like abacus and cuibarism are only used to develop finger use technique though their use is to teach mathematics. These and the related materials are needed to fully use Braille skill yet these are not taught in the school. On the other hand, the students will have no more chance to learn Braille after they leave the school and this needs great attention.

The stakeholders in Braille teaching in the school according to the teachers teach other subjects in FDG are all the teachers and the students. According to them, Braille is a means that addresses every lesson to the students and if this is so, it is the concern of all though the competence can't be as that of the skill teachers.

For the same idea presented to the teachers with visual impairment of the school, they responded that students, all teachers and the school community as a whole are the stakeholders as all have their own responsibility in creating conducive environment for learning and teaching activities including Braille skill.

On the contrary, they made clear that there is a trend of leaving Braille to Braille teachers and this is problem but every individual should give attention to Braille whatever the subject they teach.

2. Teachers' Braille Competence of Sebeta School for the Blind

Regarding the criteria for competence in the Braille code as one is employed for Sebeta School for the Blind, the respondents from Sebeta Education Office replied this question explaining that in principle, teachers employed to the school should have Braille skill and awareness about PWDs; However, this has not been fully implemented yet. Teachers come with transfer and also employed have been mostly with no Braille skill. According to them, after their arrival, these teachers are encouraged to develop the skill from the experienced staff members.

They added that from their close supervision and regular report they get, STEO has been observing the Braille competence problems of the school students and teachers. For the question raised to check whether they have observation checklist, problems and successes they have got in the skill, professional and material supports they have done to enhance the skill, the respondents from Sebeta Town Education Office replied that they have no special observation checklist to the skill but the general checklist used everywhere is applied though they do have regular report regarding the Braille skill problems the teachers have. According to them, the school is doing on improving the skill by organizing Braille club and CPD programs whereby the teachers are expected to improve their skill.

In their part, they said they haven't given significant support to develop the skill in the school though they have planned to support with school grant at least to capacitate them with something;

The school director and the vice director replied to the same question saying that they don't know how the former staff members were employed but since they started, they know that anyone who is employed to the school as a teacher must be SNE graduate and have the Braille skill. According to them, the rest staff members are also taught the skill in CPD program in order to capacitate them. Here, they strongly stressed that even if it is with different shortcomings, being courageous enough to teach the skill in the school with commitment can be mentioned as a part of successes they have.

Regarding the skill of the teachers employed at the school, the Oromia Education Bureau SNE focal person replied that in different special schools including Sebeta, teachers get diploma from SNE teachers college and also some times who are certified in the skill by Ethiopian National Association of the Blind (ENAB) are supposed to teach the Braille.

The Braille teacher in this regard raised an idea that the most serious challenges as to her are many teachers of the school don't have Braille skill and this has resulted in the failure of the students in the skill. She explained that as the teachers can't use Braille, they can't practically give assignments and give feedback by checking errors of the students in their works. What they are doing is orally giving some activities and again getting feedback orally. During examination, some of them ask someone to help them to correct and some try to use the simple things like true/false, (A, B, C, D) for the sake of objective type correction. In short, they can't check the short notes they give and different assignments and comment if they wrongly spell, miss punctuate Etc.

Thus, they don't directly or indirectly contribute some thing for the development of the skill and it seems the work left only for the Braille teachers of the school.

For the question raised to identify whether they are able to use Braille so that they can help the students, the teachers teach other subjects, in their FDG responded that even if the degree of competence varies from person to person they said, they can use to correct exam. And read some works of the students. They also added that their attitude is positive and they are eager to develop the skill so that they can fully support the students. They made clear that there are different training programs to build their capacity; however, as to them, they are left with a lot of things to improve. They explained that shortage of time to work with CPD, lack of needed commitment and attention are things hamper their efforts. Somehow, they said that they have been trying their best to use the professional support given by Braille teachers of the school as well as trainings coordinated by some external bodies.

Regarding the Braille teachers of the school and the Braille competence they have, the skill of handling any literary Braille code transcription independently, refresher courses or in-service courses they get to be up-to-dated in the skill, the school directors responded that some of the teachers with visual impairment found among the staff and the teacher who developed the Braille teaching manual and textbook are currently teaching Braille in the school. Regarding their competence, they replied that though they are not much sure, they think they are better in the school yet no skill updating trainings are given.

The interviewees added that the finance problem to further give training on the skill, shortage of different materials, the behavior of the students as well as the curriculum issue discussed above are the most challenging issues to proceed to further enhance the skill.

Anyway, they said that they have been using the locally available materials, by asking support of different visitors and donors and also by following the professional supports and comments of their experienced teachers.

3. Braille competence of the school students with visual impairment

Regarding the Braille competence of the school students, questions were raised to different participants and different ideas were obtained and summarized briefly.

Regarding the students' efficiency to use Braille Grade 1, Grade 2 Braille contraction and transcribe mathematics by using the Nemeth Code, skill of handling any literary Braille code transcription independently, the Braille teacher chosen for interview responded that they are trying their best and even there are some students who are extremely clever and can read and write at grade 1. She added that she brings the work of the other students from another class and asks them to read and gets them efficient enough. Here, there are some students who are successful including Braille contraction, whereas, most of them are poor in general and particularly in Braille contraction even at grade 4 whereby learning Braille is completed.

In fact, code of Braille mathematics (Nemeth Code) is something vague almost for all of them. This means, they can't use Braille mathematics as the teachers teach the subject don't have the skill and simply give the students oral activities and claim that they teach mathematics.

To solve the problem, she said that she try to help the teachers to have the skill though she hasn't been much successful yet.

The same question was indirectly raised to the school directors saying the attitude of the school teachers and students towards Braille skill and they replied that the school management is seriously working on awareness creating activities for both teachers and the students to understand the importance of Braille to the Persons With Visual Impairment in that the death of Braille means the death of education of PWVI and therefore protecting the skill from death has positively been worked on by all of them. As to them, different workshops and trainings were given in collaboration with MOE and Finland government. These and the

other similar programs are believed to equip them with the skill and also develop awareness and positive attitudes in them.

Regarding the attitudes of the students, they added that the students of the current time are not as active and interested as the former ones and their misbehaving are what need a lot of work to change.

On the other hand, the students participated in FDG were asked what opinions teachers of their school have about key issues in Braille literacy and they responded that there are some teachers with positive attitude undeniably, whereas, most of them have no attention to the skill. They added among the staff teachers, as to them; minimum service in the school is three years and if their attitude is positive, one by any means could have mastered the skill and support the students even with very shorter time. They added from their experience that there are some teachers who ask the name of each student when they collect the paper after they have given exam. And write with pen so that they can easily identify the student; Moreover, they said that if they are told it is already written in Braille, they are angry at them.

The school teachers with visual impairment participated in FDG explained the Braille efficiency of the students as they added that it is challenge to their school to get students at grade 7 and 8 who are supposed to have mastery of the skill but practically are not able to read and write Braille. Though they haven't approved by research, they think the problem of the students may be resulted from being taught by teachers of different subjects who have no proper Braille competence; moreover, lack of interest in the skill could be seen from the students.

To solve the problem, they explained that they have been teaching the teachers who are interested and also when it is compulsory and given in CPD program. In addition, some of them took initiative to design some techniques and teach students in tutorial classes on weekends and also giving awareness to the students as Braille is the only means that can help them to proceed with their education and get success in their life.

Regarding the Braille competence of the school students, one of the teachers teach other subjects and participated in FDG and with a long experience in the school commented that during the former time, the attention given to Braille skill in the school was high and even it was one of the criteria for promotion from grade to grade. According to her, getting pass mark and competence in the reading and writing Braille was compulsory. Since recent time, she said, the interest of the students is to learn computer rather than Braille and in her opinion, computer is undeniably useful but not as useful as Braille to the PWVI. Finally, she suggested that awareness should be given to the students by making clear that computer by no means can replace the use of Braille.

In the similar way, the students involved in FDG ideally agreed with this respondent in that though their exposure to adaptive technology is at an immature level, they suggested that they believe Slate and Stylus is the most useful and the rest technology can be only as supplementary.

For the question raised to them regarding their ability to use grade 2 contractions in their reading and writing as well as transcribe mathematics by using the Nemeth Code, the students participated in the FDG responded that because they learn intensively and supposed to complete at grade 4, they are able to use most of the things though individual difference and attention variation is common

In fact, They added there are a lot of problems hamper their competence and of them, shortage of skill in Braille mathematics, being ignorant of some Braille symbols found on the materials come from abroad, lack of use of punctuation marks and symbols representation, lack of similar support from all teachers and lack of Braille materials were among mentioned.

On the other hand, they made clear that it is with great endeavors that they fill the gaps by asking what they missed from some individuals with visual impairment

and with better competence, by helping each-other forming formal and informal groups and by convincing themselves to be very much committed; however, they said that there are also some who give less attention to the skill most probably because they have no pressure from teachers of different subjects as most of the works are orally done.

Regarding their ability to use Braille contraction and their interest to use, two of them said that they have no confidence in using Braille contraction in reading and writing as well, whereas, the other two said they are able to use and also happy with the skill as it saves paper by shortening the letters and also helps to read faster. Besides this, they said it enables them to read different Braille magazines and books some times imported from abroad as they are commonly written in contraction.

For the question raised to investigate how Oromia Education Bureau and the school assess pupils' progress in Braille skill, the Braille teacher answered that she is not sure whether OEB assesses the skill of the students probably being with the school management but she assesses the students based on the content of the lesson taught. The teacher added that the current management of the school understood that the competence of the students is getting down and down from time to time and therefore given attention specially by improving the supply of teaching materials like Slate and Stylus relatively better than the previous times. She added that even if the Braille skill of the school is facing a lot of challenges, they are trying to solve the skill of the staff teachers by giving in staff training and different workshops prepared by different donors.

The respondent from Oromia Education Bureau in her part explained that the issue is not much recognized by the bureau as no concerned professionals including herself have not been assigned to deal with it; However, she said that there is informal rumor that there is problem in the skill and as to her, it is heard that the teachers nowadays graduate from different colleges lack competence and

this inefficiency of the teachers might have been resulted in efficiency of the students.

On the other hand, the teachers with visual impairment participated in FDG suggested , when we talk about Braille skill, it is important to understand that it is not only reading and writing with Slate and Stylus but there are also different symbols represent different things like music nota, phonetics and the other. Thus, it is relevant to prepare conducive environment and standardized curriculum that allows the people with visual impairment of their school and at large, our country to be with complete skill. If not, Ethiopian students with visual impairment can't read and use some materials sometimes imported from abroad. Besides this, they said that Afan Oromo Braille contraction which is slightly adapted from English and used most probably only in the school should also be standardized.

To further investigate the Braille competence of the school students, the researcher conducted Braille reading and writing tests to four students from grade four and to four grade eight students as well and the result of the tests are summarized below.

A. Grade four Braille reading and writing test

One of the students who was a male and from grade 4 section B was not able to read three words from Afan Oromo among ten given words as he was not able to sound them in the right way. Similarly, he missed five words among ten words given from English. A male student from grade 4 section A on the contrary was not able to read and simply mumbled. He missed also the appropriate direction of the paper when he was trying to read and also he didn't use his two hands.

One of the female students who came from grade 4 section B was able to read all of the words from Afan Oromo except she distorted the sound of one word only; Moreover, she could correctly read the text given her in English with no difficulty. The female student from grade 4 section A was able to use appropriate

use of the reading direction and with her two hands like the other students yet she read only two words correctly among ten words given and took longer time.

Both of the students came from section B were able to check the appropriate direction of the text first before they proceeded to read.

Regarding writing test, the male student from section A tried to write but with full of unnecessary dots and with only three meaningful words from Afan Oromo part and only two words from English.

The male student who was from grade 4 section B could write the list of words given him in Afan Oromo by missing way of writing two words among 10 words and also had punctuation mark problems; However, he wrote as fast as possible and with clear writing and with no unnecessary dots used.

In addition, he wrongly wrote two words among ten given words in English. The problem of punctuation mark is clearly observed here again.

A female student from section A correctly wrote her name and the rest things were simply meaningless dots especially in English yet two words were well done among ten words of the Afan Oromo part.

A female from section B however wrote all words in Afan Oromo yet a little bit distorted the way one word is written. Her works were clear though she didn't use capitalization for the initial letters of all words. She was also as fast as the boy from her section in her writing and wrote all words in English correctly yet she didn't use appropriate punctuation marks similar to her classmate; However, both students were able to use Braille contraction where they were expected to use.

B. Grade eight Braille reading and writing test

To begin with the reading test, one of the girls who came from grade 8 section B wrongly used the direction of the text when she wanted to read and even though she was told the right direction, she couldn't read any word at all from all texts)

Afan Oromo, Amharic and English) and simply moved her fingers on the paper. Even if she was given enough time and also more chance on another day and was encouraged to feel free, she was not able to read indeed.

The other girl who was from grade 8 section A couldn't read Afan Oromo but was able to read only the instructions of Amharic and English texts after a lot of struggle and mumbling. They complained that they have no ability to read and write in Braille contraction though they failed even to read the uncontracted parts of the texts.

One of the boys who came from grade 8 section B was able to read Afan Oromo very well and with good clarity. He tried his best to read also in Amharic well though with different distorted sounds of different words; Moreover, he read the English part meaningfully. He had no problem in reading the parts written in Braille contraction.

The fourth student who came from grade 8 section A also read the three texts almost like the former boy from the other section. Though they were with slow speed, the two boys had almost similar speed and ability and with good competence and better in Afan Oromo and English. Besides this, they are good at reading the Braille contraction.

Regarding writing test, just following the former order, the girl came from grade 8 section B wrote the text given ten words in Afan Oromo by missing the exact spelling of five words and with miss-punctuated way. She also wrote the Amharic part by writing 7 words meaninglessly among the given 20 words and the rest with distorted sounds. Here, she used some extra dots which have no relationship with the text. Even if she didn't use Braille contraction, she could write 9 words from English text among 20 given words. She wrote in contraction the word "name" only.

The other girl who was from grade 8 section A wrote only two correctly from Afan Oromo text by giving no attention to the punctuation marks in all language. She wrote 8 meaningful words in Amharic among 20 words and besides this, she wrote 11 words in English almost meaningfully though she wrote the list of words with no gap just like paragraph writing. She also didn't use any Braille contraction in English. The unwanted extra dots were also commonly seen.

Regarding this writing test, the boy who was from grade 8 section B wrongly spelt three words among ten given words in Afan Oromo, without appropriate indentation, as well as lack of proper capitalization.

On the other hand, he could write ten among 20 words given in Amharic despite their being written in the way he pronounces them when he speaks.

He also wrongly wrote three words among 20 given words in English but with appropriate Braille contractions whenever needed. The punctuation mark problem is common here again.

Lastly, the boy who came from grade 8 section a miss-spelt three words among ten given words in Afan Oromo and with no punctuation mark problems. He missed to write five words among 20 words given in Amharic though most of them were to be wrongly sounded. There were also meaningless dots in the texts.

He also missed the proper way of writing four words among 20 words given in English and unwanted dots were common in his works;

However, he used Braille contractions as good as the boy from section B indeed. The common difficulty they had was problem of using appropriate punctuation marks.

Here, the researcher was interested in testing reading words rather than a paragraph or an extract of a given text just to minimize contextual assumption.

In addition to conducting tests, classroom observation was carried-out in order to approve the evidences found from the respondents. The observation includes grade four Braille teaching class and grade eight English subjects teaching and it was for two rounds in each grade and the observation report could be summarized as follows:

To begin with grade four, and it was in both Sections A whereby 7 male and 7 female, total 14 and from section B, 9 male and 8female total 31 number of students were attending their lesson

Both days in both classes, the teacher started his work by following the usual teaching procedure and asked the students to present their homework. Some students read their works. On the first day observation, they read some examples of “upper Letter Sign.” The teacher listened to the works of the students and gave them feedback orally. Then, he continued with the work of the day by dictating them a short paragraph that has got different words should be written in Braille contraction. He read for them the second time so that the students could analyse the particular words should be written in contraction. Following his reading, the students asked the teacher how some words are spelt so that they can investigate the contraction form of them and some took note when the teacher told them. This was with their own interest not with the pressure of the teacher. The teacher in turn asked them how some words are contracted and he did this again orally.

The students were not given any chance to read from textbook as there was no student’s textbook prepared in Braille on the skill. They were given class work by discussing in group and report the result of their discussion just orally. Though the teacher hasn’t regularly collected the exercise books of the students, he some times has done checking activities but the frequency of checking is very less observed with-in the two round observations. Thus, no correction was given on the writing or reading problems of the students except correcting based on their oral responses.

The students in their parts were answering questions of their assignment by reading from their exercise books, listening teacher when he was teaching and commenting their works, asking questions on their difficulties and some of them were taking note on relevant points they get. The teacher some times has been encouraging them to practice reading from one book taken from library and very old curriculum of a given subject. The attention of the teacher was purely to help them develop Braille contraction.

The teacher had a sort of short note probably he prepared himself, whereas, the students had nothing at hand except Slate and Stylus with 5 students in section A and 7 students in section B. No adequate materials even the textbooks for the appropriate teaching and learning activities of the students.

Regarding grade eight class observation, it was in section A, whereby 11 male and 8 female, total 19 and on the same day, in section B 10 male and 8 female total 37 number of students from both sections were attending class

The teacher started her work by following the usual teaching procedure and asked the students to present their homework. Some students read their works. She didn't collect the works of the students and corrected them but she gave feedback based on the works they read for her. Then, she continued with the work of the day by reading passage from the student's textbook. She read for them two times so that the students can understand the idea of the passage. Following her reading, the students asked the meaning of some difficult words they heard from the reading and some took note when the teacher told them the meaning. This was with their own interest not with the pressure of the teacher. She asked them to answer some comprehension questions and they answered orally.

The students were not given any chance to read from text as there was no student's textbook prepared in Braille. They were given class work by discussing

in group and report the result of their discussion just orally. No attempt was done by the teacher to make the students write in Braille and even the homework they did at home and came with wasn't checked by the teacher. No direct and indirect attention given to reading and writing skills of the students. Thus, no correction given on the writing or reading problems of the students.

The students were answering questions of their assignment by reading from their exercise books, listening teacher when she was reading, asking questions on their difficulties and some of them were taking note on the meanings of the words they ask from the teacher. Here, the teacher had one student's textbook in ink print, whereas, the students had nothing at hand except Slate and Stylus with 3 students in section A, and 5 from section B. No adequate materials even the textbooks for the appropriate teaching and learning activities of the students.

4. Opportunities to enhance the Braille skill at Sebeta School for the Blind

Regarding opportunities they have to develop both Braille reading and writing, the directors responded that having six teachers with visual impairment among 35 staff members, having a well organized resource center for both teachers and students, being nearby Sebeta SNE Teachers College and being frequently visited by different indigenous famous people and foreigners who can contribute something to the school can be mentioned. In addition, being near to OEB is an opportunity to get close follow up and immediate feedback can be among good opportunities mentioned by the directors.

For similar question, the Braille teacher answered saying that the presence of teachers with Visual Impairment among the staff, students being together always to help each-other in team work, the time allotment given for Braille skill because it is three contact hour weekly, and the number of the students as it doesn't exceed maximum 15 in one class makes it manageable and can be of good opportunities if they use.

The resource center coordinator in his part suggested that He said having the center is an opportunity as fully equipping can gradually be done. The other thing he said is his being the center coordinator with skill being with some other staff members can also be a part of good opportunities. He added that the school is nearby Sebeta SNE Teachers College and if the school can get their professional support, he believes that they will have better improvement in the center to enhance the Braille skill in the near future.

The respondents from Sebeta Town Education Office also shared the ideas of the school directors and the resource center coordinator as well.

The respondent from Oromia Education Bureau mentioned that their currently having at hand the SNE strategic plan prepared by MOE and activities recently started to promote inclusive education with the support of Finland government and some other NGOs may give conducive environment to develop Braille skill in the school and in the region at large.

The students involved in FDG were asked the same question and they responded that their living together is an opportunity as they can help each-other to develop the skill. In addition, they said they heard that some organizations are on the way to promote different works and advertisements in Braille and if this is started, they said it is a good opportunity for the enhancement of the skill.

In addition, the teachers with visual impairment of the school responded that their being among the staff with the skill, starting to get Braille papers in Ethiopia since recent time, and being frequently visited by different people can be mentioned as some opportunities the school has if used.

The teachers teach other subjects also added similar idea saying that having the qualified SNE teacher and the other experienced members with visual impairment among the staff can be some of the good opportunities if they are committed enough to proceed with the skill development.

To check the service of the resource center and its being a part of good opportunity, the researcher directly observed for two times on different days and got the following summarized works indeed. The first day, there was an assistant coordinator of the center, employed by the donor, and unfortunately, there was no the regular coordinator. There were 17 students from different grade levels and all of them were male and no teacher at all. At the second round observation, there was the regular coordinator and there were only 12 students (10 female and 2 female.)

According to the researcher's observation, different activities were carried-out in the center. The coordinator was supporting the students by showing the placements of different materials students want to use based on their questions. He some times was telling the students how to play with different materials used for indoor games by explaining the tactual things used to represent different letters in Braille. No adaptation of different visual materials in to tactual materials except the things already adjusted and put there. He was able to use and demonstrate the materials available in the center and it was meaningful work as he was using techniques that enable the students to touch and feel by their two hands.

Regarding the activities of the students in the center, Some partial sighted students were watching TV and some students were playing indoor games such as dominos and identifying different object models. They were asking the coordinator to explain the things which are not clear from their watching and the other students were asking questions to tell them what the different objects are and the representation of different dots on them. They seem happy with the way the coordinator being with his assistant were treating them. As it is already mentioned, no teacher was there neither to support the students nor to get service in his/her Braille skill.

With regard to available materials, among different needed materials for the full mastery of the skill, there were only few slate and stylus and dolls which of different object models on which dots of Braille were posted. Almost all of the available materials were used for the beginners though the center is the only center used for all of the students in the school.

Most probably, the students who are partial sighted and watching Television were from grade four and above and the rest were the beginners. The materials were not adequate at the absence of different materials such as Braille books, Perkins, Braille Display, Thermoform Machine, and Globe Etc.

In fact, the center seems recreation room rather than resource center as everybody was enjoying and the room is noisy.

CHAPTER FIVE

DISCUSSION

The main objective of this study was to investigate whether the students with visual impairment of Sebeta School for the Blind are competent in reading and writing Braille. As it was depicted in chapter three, the research design was used in qualitative method. The study collected data using interview questions, focused group discussions, reading and writing Braille competence tests, and observation analysis. The collected data were interpreted and analyzed under different categories, i.e. how the Braille skill teaching is implemented in the school, the Braille competence of the school teachers and students, and opportunities indicated by the respondents the school has to further enhance the skill. The results of the study were also discussed in respect to these categories.

5.1. The implementation of Braille teaching in the school

As it is clearly indicated from different respondents in interviews, focused group discussions, Braille reading and writing tests and observations, teaching Braille skill is implemented at Sebeta School for the Blind with different situations. All the information gathered therefore can have the result summary indicated below:

- Even if every respondent could assure that the Braille skill has been given, there is no document about the background fifty years history of the curriculum the school was using. Here, both the school management and Oromia Education Bureau (OEB) who shoulder the most responsibility about the school themselves have never realized about it.
- As there is no legal curriculum which has recognition from the expected body, there is no needed support and supervision that checks there is standardized lesson delivery at the school
- No awareness from the school management and the other concerned government bodies that the absence of the curriculum, appropriate syllabus, textbook and the other related materials affect the skill and makes it incomplete

- Even though Oromia Education Bureau is responsible for all the curriculums, teaching guides and syllabuses of all the subjects taught in all the schools of the region, it is neither organizing means of relevant curriculum adaptation nor pushing MOE to find solution on the Braille skill.
- As the respondents assured the Afan Oromo contraction slightly adapted from English is only known at Sebeta and no standardizing process so that the rest persons with visual impairment of the region can be benefited.
- The manual prepared at the school level with the initiatives of an individual itself hasn't been given recognition by OEB yet.
- The bureau informally knows that the skill has been given at Sebeta School for the Blind and also in different Special units found in different schools of the region but has no idea about the side effect of the absence of pre-Braille, standard procedure and curriculum, the lack of needed materials, and absence of professional focal person with full responsibility at OEB level Etc.

The absence of these all relevant things could be resulted in inadequate teaching procedure and with different limitations.

Regarding the significance of curriculum, scholars suggest that it is with complete solution in that it is the description of what to teach (content) and how to teach (method) individual children (Guralnick, 1997).

At the absence of organized curriculum, syllabus, teacher's guide and student textbook, conducting lesson itself is also what can affect regularity and formality of our work. According to Williams (1991) curriculum as the total of pupil's planned leaning experiences in the school.

5.2. The Braille competence of the school teachers

It is obvious that the competence of the teachers are one of the most significant things for effective teaching and should be given attention in all school activities .Regarding this, all the information investigated with different techniques in chapter four showed that the competence of the teachers at school is under question as they are not practically skilled enough. As it is clearly depicted, the school resource center, the CPD programs organized for the improvement of the skill, the resourceful persons among the staff are not fully exploited by the teachers yet the school management and the Town Education office claimed that these conducive environments are there for the teachers to fill the gaps of the skill they have. Moreover, as it is already indicated under personal information of the respondents in chapter four, among the respondents themselves, only one individual is from field of SNE. Thus, the incompetency of the teachers is shown as:

- They are not able to correct the works of their students with full confidence
- Though they explain that they are eager to improve their skill, it is not practical
- Those who were supposed to have competences themselves are with the ability doesn't go beyond identifying letters and few words
- In the reality, different systems are developed from time to time with the improvement of computerized Braille translating windows and being aware of the newly invented additional things in the skill are relevant. However, no updating course for the regular Braille teachers of the school so that they get timely competence. Moreover, there is no jointly working in the enhancement of the skill among the teachers.

Hornby (1995) on the other hand indicated that special education provision will be most effective where there is a close co-operation between all the agencies concerned and multidisciplinary approach to assessment and curriculum planning.

Regarding the teachers of students with visual impairment, AFB (2006) stated that a teacher of students with visual impairment is a teacher who specialized in working with them. Corn (1986) cited in Barraga and Erin (1992) also explained

that the teacher's training in knowledge and use of teaching devices may be critical factors.

Thus, a teacher of Children with visual impairment should be a certified teacher with special training in visual impairment and individual needs for materials, devices, adaptations and specialized services in the educational setting (Barraga and Erin, 1992).

Here, they are expected to have the skill of using different devices so that they are able to help the students. For instance, they are required to demonstrate their competency in writing Braille with Slate and Stylus. This is further evidence that knowledgeable professionals in the field have determined that using a Slate and Stylus is an essential skill that should be mastered by teachers of blind children and adult to enable them to competently teach this skill to their students (Baltimore, 2000).

5.3. The Braille competence of the school students with visual impairment

In the teaching and learning process, it is vital to expect needed changes on the life of the learners in general and better performance in subjects attended in particular. Here, the students with visual impairment found at Sebeta School for the Blind were therefore investigated whether they have been equipped with needed Braille competence. Regarding this idea, all the evidences discussed in the preceding chapter made clear that the Braille competence at the school needs attention in that there are challenges with them as summarized below:

- Though there are some comparatively competent students with their own efforts by asking supports from senior fellow blind friends, there are many students who can't properly use Braille as they are not supported by needed teaching methods and, materials and competent teachers
- No skill of using Braille contraction by most of them and this could be resulted in problem of using written materials come from abroad as they are mostly written in Braille contraction
- Can't use punctuation marks properly

- No one can use Braille mathematics
- Oral learning is mostly carried-out in the school
- Incompetence of the students is observed in that many teachers are not able to use Braille and help the students
- The students have no skill of using other Braille devices except Slate and Stylus

Inefficiency of the teachers forced students to misbehave and also developed lack of interest to their education. This means, the lack of meaningful support and follow up in the skill from the teachers in the school affected their interest.

The students were presented reading and writing some words during tests and this was just to minimized the contestual guessing could have been used . Regarding this use of assumption in reading, (Schank and Abelson, 1977), or mental models (Johnson-Laird, 1983) by using previous knowledge of the subjects matter as a frame for integrating the information that becomes available during reading. It has been suggested that even simply giving the title of a story prior to reading may facilitate braille reading (Hartley et al., 1987).

According to Barraga and Erin (1992), the choice of appropriate equipment and the use of efficient instructional methodology can make a critical difference in success in learning for the child with visual disabilities. This delineates that how far the success of the students in the skill has been hampered. As to Lewis (1995), Students with visual impairments require adaptation in the structure of instructional procedures although extensive curricular adaptations are typically not needed.

On the contrary, as it is already described in the data analysis, the information were gathered from different sources and all could indicate Available opportunities to develop the Braille skills if the school community and the other top line managers are ready to use and develop the skill. The presence of skilled man power among the staff, the presence of resource center, getting visitors regularly, nearness to Sebeta SNE Teachers College and OEB, students' being

together to help each-other, time allotment, manageability of the number of students assigned to each class, the presence of an experienced and qualified SNE professional can be mentioned. Even if these all are listed as opportunities they have at hand, the researcher got no indicator of readiness to use the available prospects and due to this, the skill is dying and no quality education delivered in the school as the students are mostly exposed to oral learning approach unless some endeavors a few of them are doing.

On the other hand, encouraging oral teaching approach is some thing not supported by educators as it is not believed to be resulted in quality education and according to the Dakar Frame Work for Action (2004) cited in Savolainen et al. (2006), "A quality education is one that satisfies basic learning needs and enriches the lives of learners and their overall experiences of living. It influences what students learn, how well they learn and what benefit they draw from their education."

Booth and Swann (1992) also said that effective education, experience and training can significantly reduce the handicaps which may arise from disabilities. In this regard, it may be difficult to conclude that the teaching approach of the school encourages quality education and fully empowers the students with visual impairment of the school as it is with the drawbacks so far identified.

CHAPTER SIX

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

6.1. Summary

The major objective of this study is to investigate whether the students with visual impairment of Sebeta School for the Blind are competent in reading and writing Braille. For the implementation of the study, the research design was used in qualitative method. In order to proceed with the study, the tools developed were interview question guides, focused group discussion guides, developed reading and writing Braille competence tests, and observation guide analysis. The data were collected qualitatively from the sources of the data using the techniques already mentioned. With regard to the respondents, 8 students from the particularly grade 4 and grade 8, 9 teachers, 1 resource center coordinator and two directors (including the vice), from the school, 2 respondents (the vice head and one supervisor) from Sebeta Town Education Office, one SNE focal person from OEB, and total respondents 23 and the Braille test papers, classroom and resource center observations were sources of the data and they were analyzed qualitatively by narrating organizing them under different categories, i.e. how the Braille skill teaching is implemented in the school, the Braille competence of the school teachers and students, and opportunities the school has to further enhance the skill.

The study stressed even though Braille is taught in Sebeta School for the Blind, there are still a lot of gaps that need to be filled soon. The data presented in this study showed that in spite of attempts done by government to address the need of some PWVIs of the region at the boarding school, there seem to be some missing elements from the side of government and the rest stakeholders.

Thus, this study provided an authentic response on why the students with visual impairment of the school are incompetent in Braille. For instance; the learning environment in terms of available facilities and materials for PWVIs to fully attend the lesson, how teaching the skill is implemented in the school, what the system lacks, the failure of the stakeholders of the teaching/learning process, the lack of needed materials and its consequences, the role of each concerned bodies and their expected commitments Etc. are clearly indicated; Furthermore, it shows the communication gaps that created problem as a result of limited undefined teaching strategies in creating competent students with visual impairment.

6.2. Conclusion

Based on the data that were presented and analyzed in the previous chapter, the following conclusions are drawn.

As it is indicated in the discussions part of the research, the current Braille teaching activity implemented at Sebeta School for the Blind is not in the way meets the skill need of the students of the school in that it lacks the following relevant points:

1. Though the school is with a long history in teaching Children with Visual Impairment, there is no document shows the background of the Braille curriculum development in the school and still no any guideline recognized by a legal concerned body
2. The consequence of the absence of the legal curriculum and the related issues such as syllabus, teachers guide and student textbook, are not recognized by the school management and the rest top line management
3. The students are taught with “school based” curriculum which lacked relevance in that the students failed to use the materials imported from abroad and communication gap is created

4. During the employment of the teachers of the school, their Braille competence is given less attention and due to this, they are not fully supporting the students,
5. The students particularly who depend on the help of their teachers are left with no skill even at the time of their completing grade eight and the reason for the inefficiency of the students, the skill incompetence of the school teachers contributed much.
6. The shortage of the skill ability around the management of the school and lack of the right profession could be resulted in inability even to determine on what situation the skill is found in the school. This is indicated in that they assume that they filled gap of skill using different training programs and CPD, where as, the reality on the ground shows that the skill they have is very insignificant to support the students. On the other hand, it is possible to analyse from the history of Braille that during the 1950s and 1960s, the prevailing theory of education for visually impaired students was that, with certain basic skills and adequate support of the regular teacher in the adaptation of curriculum, blind and visually impaired students could (and would) meet the same academic standards expected of sighted students. The basic skills that required direct intervention by the specialist teacher were braille reading, use of the braillewriter and the slate and stylus, and typing (Hatlen, 1981).
7. Lack of appropriate Braille devices made the students with no full skill of manipulating all kinds of materials even in case they get the devices one day either with special support, or with their own expence,
8. Even if the school has not properly used the potential of the manpower found in the staff, it was obviously pointed out in the

study that there are very resourceful persons in the school though they are less in number

9. As different improvements are gradually invented on the Braille skill due to technology, the Braille teachers who are found at the school and few in number are not getting updating course so that they can be aware of different Braille symbols used by Braille Embossers, music nota, Braille mathematics and phonetics Etc.
10. Having at hand the SNE strategic plan was stressed as a good opportunity by OEB. However, it seems only for an escaping mechanism as it is with no effect on this area,

The information found from the OEB respondent shows that the Bureau is playing no significant role on SNE yet they have been referring the duty to some NGOs, shows their being irresponsible to give equal opportunity to all part and parcel of the society. On the other hand, educational training policy of Ethiopia conformed that “special education and training will be provided for people with special needs (TGE, 1994, p. 17). Aside from what has been stated in educational policy, the Ethiopian constitution under Article 41, declared that “Every Ethiopian national has the right to the equal access to publicly funded social services” (FDRE, 1995, p. 15). Moreover, under Article 90, it is stated as follows: “to the extent the country’s resources permit, policies shall aim to provide all Ethiopian access to public health and education” (FDRE, 1995, p. 13).

6.3. RECOMMENDATION

The way teachers, the school management, the town education office, the Bureau and the students perceive the implementation of Braille skill and the prevailing conditions with-in the school set up may hinder or enhance its promotion. Therefore, effective measures need to be taken to tackle the prevailing problems that work against the Braille competence of the school students.

Depending upon the scope of the problem and areas of emphasis for taking actions, measures to be taken can be carried-out at several levels.

6.3.1. Measures to be taken by the Oromia Education Bureau

- There must be clearly organized and recognized Braille curriculum to provide Braille skill to children with visual impairment of the school and the region at large.
- Educational policies and teachers' training programs also need to be progressively updated to realize Braille as a part and a parcel of education of the country.
- The bureau is suggested to play a part in creating awareness to the concerned body about the lack of the curriculum of the skill and its consequences to the visually impaired part of the society through its accessible organizational networks. This would help to presume immediate activities towards the preparation of the curriculum along with the supply of the needed Braille devices.
- To keep its standard, the OEB and MOE need to work together and get experiences and professional supports of the other countries.
- Assigning professional as SNE focal person and regular supervision and evaluation should be carried-out.
- The OEB and STEO should discuss together and assign SNE professionals for fruitful work to the management and also teaching tasks at Sebeta School for the Blind.

According to the 1995 UNESCO's report, "There is little or no preschool provision for children with educational needs in Ethiopia" (p105). Hence, the government should encourage the preschool provision of Braille skill for children with visual-impairment at a sufficient level so that they can get pre-Braille services. This may help as foundation for successful Braille competence.

6.3.2. The school management

- To reduce competency problems between teachers and the school students and enhance the recognition of Braille, having the skill should be compulsory when one is employed to the school.
- Joint Activities is recommended to be wisely structured (by the school) to facilitate the enhancement of the skill.
- The school management should organize different trainings and certify based on the real competence developed.
- The school should appreciate the endeavors the school individually do and give incentive so that the rest can be motivated to reach to their full potential.
- The school had better reassure that there is respect to the skill and self-help initiation between and among teachers.
 - The school teachers
- The Braille teachers of the school should give close follow-up and continuous assessment of the competence of the school students.
- There should be collaboration among the staff teachers on sharing experiences and arrange ongoing skill support to the students.
- All Braille devices available in the resource center and the other broken-down should be in use to help the students acquire certain skills that would be helpful in their future life.
- The teachers, especially those with the visual impairment, are recommended to share the students about their own personal values and the contributions of Braille competence to their life potentiality to make them develop a positive self-image in their interaction with the educated community.
- To reduce the skill problems, all teachers and even the school community should take Braille skill trainings given to teachers and students by those teachers who are already trained and experienced enough.

- There is great degree of variation of skill competence among the students of the school. Therefore, the school teachers need to work closely with the students and each-other to minimize the skill gap using different techniques and team works.

6.3.4. The students

- Students should be oriented about the nature of Braille skill and the potentiality to be cultivated with the help of the skill so that they can have better understanding to promote the skill.
- They should appreciate individual differences and be ready to learn from each-other.
- They should know that Braille is the skill enables them to use materials in any country as it is the skill with international acceptance and they had better work hard to have clear reading and writing competence.
- They should develop the skill of using Braille contraction and punctuation marks properly.

In short, the study raised the Braille competence of the school students with visual impairment and found out the drawbacks it has by now. The researcher also recommended solutions based on the findings in order to save the skill from death. However, what attention the Braille skill has and how it is being implemented at the regional and national level is not investigated yet. Thus, it is recommended to be proceeded by any interested researcher to further dig out the challenges of Braille skill in Ethiopia so that more solutions can be recommended to show direction to the curriculum designers and the implementers as well.

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Appendix A

Instruments of data collection in English

Addis Ababa University

Department: Special Needs Education

This study will be conducted at Sebeta School for the blind. The main objective of the research is to identify if there is problem of Braille competence with the school students and recommend solution. Very specifically, it will deal with the Braille competence of the teachers and the students and the opportunity they have to further improve the skill.

You are chosen for this interview believing that you are one of the persons have close relation with the school teaching/learning activities.

Bearing in mind these points, you are kindly requested to give your honest opinion on each one of the items. The information from respondents will be kept confidential and will not affect any body in any way.

Therefore, your frank and sincere responses will be highly appreciated and are the guarantee for the validity, reliability and quality of the research.

Thank you in advance!

Section 1. Interview guide questions

1.1. Interview guide questions to the school directors

Personal Information

Sex_____

A. Educational qualification_____

B. Field of study_____

C. Service in years to work with the school_____.

1. What guiding principles do Oromia Education Bureau and the school have towards Braille and Braille teachers?

(Curriculum, Braille syllabus, books, material distribution, supervision...)

2. What have you been doing to keep the standard of Braille taught in your school?

3. What are the criteria for competence in the Braille code as one is employed for teaching activities at your school?

4. What opinions do teachers and students of your school have about key issues in Braille literacy?

5. Who teach Braille in the school and what Braille competence do they have?

(Do they have skill of handling any literary Braille code transcription independently, do they get refresher courses or in-service courses to make them up-to-dated in the skill, either at regular intervals, or when the teacher feels it is necessary...)

6. What opportunities do you have to develop both Braille reading and writing?

7. If you have any other opinion to add, you are welcome.

Thank you!

1.2. Interview guide questions to the Braille teacher of the school

Personal Information

- A. Sex_____
- B. Educational qualification_____
- C. Field of study_____
- D. Service in years to work with the school_____.

1. Which grades learn Braille as a subject?

(What about: time allotment from grade to grade, the number of the student in each class and the teacher's ratio, issues of pre-Braille learning...?)

2. What procedures are followed to teach Braille in your school?

In which procedure is that finger use technique, object identification, associating name and object, improving finger sensitivity..... are developed)

3. What are the Braille teaching materials you have in your school and can you use all of them?

4. Are the students efficient enough to use Braille Grade 1, Grade 2 Braille contraction and transcribe mathematics by using the Nemeth Code? (Do they have skill of handling any literary Braille code transcription independently...?)

5. How do Oromia Education Bureau and the school assess pupils' progress in Braille?

6. What opportunities do you have to develop both Braille reading and writing?

7. If you have any other opinion to add, you are welcome.

Thank you!

1.3. Interview guide questions to the school resource center coordinator

Personal Information

- A. Sex_____
- B. Educational qualification_____
- C. Field of study_____
- D. Service in years at schools for children with visual impairment

1. Question: when was the resource center organized? Who organized it and how?
2. Is it well organized?
3. Question: what is your duty to support the students and also the teachers to enhance their Braille skill?
4. Question: what kinds of Braille materials are available in the center and their uses?
5. Question: are you skilled enough in manipulating different Braille teaching devices?
6. Question: how is the schedule of the center to give services to the school teachers and the students?
7. Question: what opportunities do you have to develop both Braille reading and writing?
8. Question: if you have any other opinion to add, you are welcome.

Thank you

1.4. Interview guide questions to Sebeta Town Education Office head and supervisor

Personal Information

- A. Sex_____
- B. Educational qualification_____
- C. Field of study_____
- D. Service in years to work with the school_____

1. Question: what are the criteria for competence in the Braille code as one is employed as a teacher for Sebeta School for the Blind?

2. Question: from your close supervision and regular report you get, what do you observe regarding the Braille competence of the school students and teachers?

(If you have observation checklist, problems and successes you have got in the skill, professional and material supports you have done to enhance the skill...)

3. Question: as a higher line manager, what is your plan for future to further enhance the Braille competence of the school students and teachers?

4. Question: what opportunities do you have to develop both Braille reading and writing in the school?

5. Question: If you have any other opinion to add, you are welcome.

Thank you!

1.5. Interview guide questions to Oromia Education Bureau (OEB) SNE focal person

Personal Information

- A. Sex_____
- B. Educational qualification_____
- C. Field of study_____
- D. Service in years to work with the school_____

1. Question: what guiding principles do Oromia Education Bureau and Sebeta School for the Blind school have towards Braille and Braille teachers?

(Curriculum, Braille syllabus, books, material distribution, supervision...)

2.Question: what are the criteria for competence in the Braille code as one is employed for primary school level teaching activities?

3. Question: what particular guidelines (if any) are being followed by Oromia Education Bureau and Sebeta School for the Blind school to produce their own Braille materials for use by the pupils they support?

4. Question: how do Oromia Education Bureau and the school assess pupils' progress in Braille?

5. Question: what opportunities do you have to develop both Braille reading and writing?

6. Question: if you have any other opinion to add, you are welcome.

Thank you!

Section 2. Focused group discussions

2.1. Focused group discussion guide questions for grade eight students

Personal Information of the participants

- A. Sex_____
- B. Educational qualification_____
- C. Field of study_____
- D. Service in years to work with the school_____

1. Question: what procedures are followed to teach Braille in your school?

(From your experience)
2. Question: are you able to use grade 2 contraction in your reading and writing as well as transcribe mathematics by using the Nemeth Code?
3. Question: are you interested in using Braille contraction? (if yes, why, and if no, why not?)
4. Question: what opinions do teachers and students of your school have about key issues in Braille literacy?
5. Question: what opportunities do you have to develop both Braille reading and writing?
6. Question: if you have any other opinion to add, you are welcome.

Thank you!

2.2. Focused group discussion guide questions for the school visually impaired teachers

Personal Information of the participants

- A. Sex_____
- B. Educational qualification_____
- C. Field of study_____
- D. Service in years to work with the school_____

1. Question: who are the stakeholders in Braille teaching in your school?
2. Question: what is your attitude towards teaching and using Braille?

(Do you use it in different places such as on different workshops, meetings ... to take notes?)

3. Question: what opportunities do you have to develop both Braille reading and writing?

4 Question: as to you, what commitment do you think is expected from one visually impaired student to master the skill?

- 5 Question: if you have any other opinion to add, you are welcome.

Thank you!

2.3. Focused group discussion guide questions for the school teachers teach other subjects other than Braille.

Personal Information of the participants

- A. Sex_____
- B. Educational qualification_____
- C. Field of study_____
- D. Service in years to work with the school_____

- 1. Question: who are the stakeholders in Braille teaching in your school?
- 2. Question: what is your attitude towards teaching and using Braille?
- 3. Question: are you able to use Braille so that you can help the students?
- 4. Question: what opportunities do you have to develop both Braille reading and writing?
- 5. Question: if you have any other opinion to add, you are welcome.

Thank you!

Section 3. Testing Braille reading and writing competence of some students of the school

3.1. Testing four students from grade four

3.1.3. Testing Braille reading in English

Dear students, read the following listed words for you carefully.

1. Beginning
2. Middle
3. End
4. Light
5. What
6. Shorter
7. Three
8. Brother
9. Four
10. Seven
11. Seeds
12. Rainmaker
13. Environment
14. Always
15. Worried
16. Worth
17. Should
18. Before
19. Blowing
20. Zebr

3.1.4. Testing Braille writing in English

Dear students, write the following dictated words in Braille.

1. Bedroom
2. About
3. Them
4. Teeth
5. Rubber
6. Shopkeeper
7. Town
8. House
9. Married
10. Fetching

3.2. Testing the reading and writing Braille skills of four students from grade eight

3.2.5. Testing reading Braille in English

Dear students, read the following words carefully.

1. Listening
2. Speaking
3. Different
4. Participated
5. Which
6. Mention
7. Enabled
8. Equipment
9. Famous
10. Grabbing
11. Could

12. Early
13. Question
14. City
15. International
16. Beautiful
17. Unless
18. Comparison
19. After
20. Therapy

3.2.6. Testing Braille writing in English

Dear students, write the following dictated words for you carefully. Don't forget to use Braille contractions and punctuations if you get among the lists.

1. Greatest
2. Miserable
3. Drown
4. Yesterday
5. Disadvantage
6. Cement
7. Production
8. Earn
9. Mother
10. Weaving
11. Become
12. Labour
13. Triggered
14. Commissioning
15. Although
16. Conjunction
17. Complain
18. Name

- 19. Careful
- 20. Suffered

Section 4. Class observation checklist

4.1 Grade 4 Braille teaching observation

- Date and time of observation_____
- Particular class observed_____
- Teacher observed _____
- Number of the students_____

4.1.1. Activities carried-out by teacher _____

- Assignment checked (by reading from paper written in Braille),
- Class work given and checked by reading the work of students

- Some feedbacks given on writing problems of students_____
- Attentions given to types of Braille Grade (Grade 1 Braille, Grade 2 /contractions...) _____
- Giving chances to students to read and answer questions, or read some texts_____
- Giving short note_____
- Attention of the teacher to Braille skill directly _____
- Evaluation carried-out to check how far the students recognized_____..

4.1.2. Activities of the students

- Answering questions by reading from their own exercise books, or textbooks_____
- Taking short note_____
- Clearly discussing on different dots specially in Braille Grade 2 and different codes of punctuation marks... _____
- Asking questions on their difficulties_____...

4.1.3. Available materials

- Materials used by the teacher_____
- Materials used by the students_____
- Adequacy of the materials_____...

4.2. Grade 8 English subject class Observation

- Date and time of observation_____
- Particular class observed_____
- Teacher observed _____
- Number of the students_____

4.2.1. Activities carried-out by teacher _____

- Assignment checked (by reading from paper written in Braille),
- Class work given and checked by reading the work of students

- Some feedbacks given on writing problems of students_____

- Giving chances to students to read and answer questions, or read some texts_____

- Giving short note_____

- Attention of the teacher to Braille skill indirectly _____...

4.2.2. Activities of the students

- Answering questions by reading from their own exercise books_____

- Reading passage from their textbooks_____

- Taking short note_____

- Asking questions on their difficulties_____

4.2.3. Available materials

- Materials used by the teacher_____
- Materials used by the students_____
- Adequacy of the materials_____

4.3. Resource center observation

- Date and time of observation_____
- Number of teachers found to help their students in the center_____
- Number of students found for support_____

4.3.1. Activities of the coordinator

- Supports done to the students and teachers_____
- Meaningful demonstration of different tactual materials_____
- Adaptation of different visual things in to tactual_____
- Ability to manipulate all available materials_____
- Techniques and materials used to help the students and facilitate for the teachers_____...

4.3.2. Activities of the students and the teachers

- Asking for further clarity_____
- Attempts done to grasp expected ideas_____
- Satisfaction of both teachers and students in the support given_____...

4.3.3. Available materials

List of needed Braille materials if available:

List	Available
Slate and Stylus	
Tactile graph	
Braille map	
Perkins/Braille Typewriters_____	
Brailion paper	
Braille paper	
Thermoform	
Embossers	
Scanners	
Braille Display	
Some more materials	
Adequacy of the available materials	

Appendix B

Data Collection Tools in Afan Oromo

Gaaffii qomaa

1. Adeemsi hojii Biirtoon Barnootaaf Manni barumsaa kun barnoota Bireeliif barsiisota isaa ilaalchisee qabu mal fakkaata?

(Kaaribulamii barnotichaa, siilabasii barnootichaa, kitaabilee barannoo, rabsaa meeshaalee barnootaa, hordoffiif to’annoo...)

2. Sirni barnootichaa kan sadarkaa isaa eeggate akka ta’uuf maal hojjachaa jirtu?

3. Namni tokko yammuu mana barnootichaatti barsiisaa ta’ee ramadamu ulaagaaleen guutamuu qaban keessattuu gara oogummaa Bireeliitiin maal fakkaata?

4. Barsiisonniif barattoonni mana barumsaa keessanii barumsa oogummaa Bireelii irraatti yaadniif ilaalchi isaan qaban maal fakkaata?

5. Mana barnootichaa keessatti namoonni oogummaa Bireelii barsiisan namoota akkamiitii, ga’umsi isaaniihoo?

(Dandeettii koodiiwwan Bireellii hundaa addaan baasanii beekuuf of danda’anii ittiin hojjachuu irratti, akka oogummaa isaanii guddifatani kan yeroo wajjin deemu godhataniif leenjiin hojii irraa yeroo dheeraaf gabaabaa gaaffii barsiisotaatiin yokaas itti yaadamee kan kennamu...)

6. Oogummaa dubbisaaf barreessuu Bireelii guddifachuuf carraalee akkamii immoo qabdu?

7. Dhimma kana irratti yaada addaa dabaltan yoo qabaattan?

Galatoomaa.

Gaaffii qomaa Barisoota Breelliif

1. Barnoota Bireelii akka barnoota tokkootti kan baratan dareewwan kami?
(Qoodamsi bay'ina daree, lakkoofsa barattootaa daree gara gareettif lakkoofsa barsiisotaa, dhimmi dursa Breellii...)
2. Barnoota bireelii yammuu barsiistan, falaa barannoof ademsa akkamii fayyadamtu?
Adeemsa akkamii keessatti: mala fayyadama harkaan , meeshaalee qaqqabannaan adda baafachuu, maqaaf meeshaalee wal simsiisuu, miira qubaa ofii dadamaqsuuf itti fayyadamuuf qopheessuu... essatti shaakalu?
3. Meeshaalee Bireelii kan akkamii qabdu, oogumaa itti fayyadama isanii hoo qabduu?
4. Barattoonni dandeettii Bireelii (grade I, Grade II, gabajee Breelii,) kan herregaa kkf of danda'anii ni fayyadamuu?
5. Biiron Barnoota Oromiyaatiif manni barumsichaa dandeetti barattoonni Bireelii irratti qaban akkamiin madaalu?
6. Oogummaa Bireelii gabisuuf carraalee gaarii maal qabdu?
7. Yaada dabaltan yoo qabaattan?
Galatoomaa!

Gaaffii Qomaa qindeessaa kutaa Leecalloof

Gaaffii qomaa.

1. Kutaan leecalloo kun yoom dhaabbate, akkamitti, eenyutus dhaabe?
(Haala barbaachisuunis qindaa'eeraa?)
2. Ga'een hojii keessaniif itti gaafatamummaan isin wiirtuu kana keessatti qabdan maali?
3. Meeshaalee Bireelii kan akkamii kutaa leecalloo kana keessaa qabdu, faayidaaleen isaanii hoo?
4. Oogumaa itti fayyadama meeshaalee Bireelii kutaa kana keesa jiranii qabduu?
5. Haalli itti fayyadama yeroon barsiisonniif barattoonni tajaajila itti argatan akkami?
6. Oogummaa Bireelii barreessuuf dubbisuu gabisuuf carraalee gaarii maal qabdu?
7. Yaada dabaltan yoo qabaattan?

Galatoomaa!

Gaaffii Qomaa wajira Barnootaa Magaala sabbataaf

1. Namni tokko barsiisaa ta'ee mana barumsaa kanaatti yammuu qacaramu ulaagaleen ittiin oogummaan Bireelii isaa ittiin ilaalamu maal fakkaata?
2. Akkaataa hordoffii keessaniif gabaasa idilee argattaniin oogumaan barattooniif barsiisonni mana barumsichaa Bireelii irratti qaban akkami? (yoo cheekliistii hordoffii qabaattan, rakkooleef milkaa'inni isaan qaban, deggersi oogummaaf meeshaalee kan gootaniif yoo jiraate...)
3. Akka qaama olaanaa mana kana oogganuutti oogummaa dubbisuuf barreessuu Bireelii mana barumsaa kana keessatti daran cimsuuf karoora mal qagdu?
4. Oogummaa Bireelii barreessuuf dubbisuu gabisuuf carraalee gaarii maal qabdu?
5. Yaada dabaltan yoo qabaattan?
Galatoomaa!

Gaaffii qomaa. BBO

1. Adeemsi hojii Biiron Barnootaaf Manni barumsaa kun barnoota Bireeliif barsiisota isaa ilaalchisee qabu maal fakkaata?
(Kaaribulamii barnotichaa, siilabasii barnootichaa, kitaabilee barannoo, rabsaa meeshaalee barnootaa, hordoffiif to'annoo...)
2. Namni tokko barsiisaa ta'ee mana barumsaa kanaatti yammuu qacaramu, ulaagaleen ittiin oogummaan Bireelii isaa ittiin ilaalamu maal fakkaata?
3. Harkeewwan garaagaraaf meeshaalee oogummaa kana deggeran qindeessanii ittiin barattootas ta'e kanneen biro fayyaduu kan itti danda'an qajeelfanni waaltinaa'e jiraa?
4. Manni barumsichaaf Biiron Barnoota Oromiyaa ga'umsa barattoonnis ta'an barsiisonni Bireelii irratti qaban akkamiin madaala?

5. Oogummaa Bireelii barreessuuf dubbisuu gabisuuf carraalee gaarii maal qabdu?

6. Yaada dabaltan yoo qabaattan?

Galatoomaa!

Gaaffii Marii garee Barattootaa

1. Muuxannoo qabdan irraa, adeemsi baruuf barsiisuu Bireelii mana barumsaa keessanii maal fakkaata?

2. Gabaajee Bireelii fayyadamuun of dandeessanii ittiin dubbisuu, barreessuuf errega Bireeliin hojjachuu ni dandeessu?

3. Gabaajee Bireeliitti ni gammadduu?

4. Dhimma oogummaa Bireelii gabbifachuu irratti barattoonniif barsiisonni mana barumsaa keessanii yaada maal qabu?

5. Dubbisuuf barreessuu Bireelii fooyyeffachuuf carraa gaarii maal qabdu?

6. Yaada biraa yoo qabaattan?

Galatoomaa!

Gaaffii Marii Garee Barsiisota Qaro-dhabeeyyii waliin

1. Barnoota oogummaa Bireelii mana barumsaa kessanitti kennamu keessatti dhimmamtoonni eenyufaa?

2. Bireelii fayyadamuuf barsiisuu irratti ilaalcha maalii qabduu? (Workshoopiif walga'ii garaagaraa irratti yaadannuu ni fudhattuu... Fayyadamaaf barsiisa Bireelii irratti hoo?)

3. Dubbisuuf barreessuu Bireelii fooyyeffachuuf carraa gaarii maal qabdu?

4. Akka ilaalcha keessaniitti qaro dhabeessi tokko haalaan Bireelii fayyadamuuf kutannoo akkamii isa barbaachisa?

5. Yaada biraa yoo qabaattan?

Galatoomaa!

3.1.1. Testing reading Braille in Afan Oromo

Jaallatamoo barattootaa, jechoota asiin gaditti isiiniif tarreeffaman hubannaan dubbisaa.

1. Sanyii
2. Dhukkubsataa
3. Ta'e
4. Dhiphisuu
5. Qoricha
6. Hiriyyaashee
7. Gammachuu
8. Dhiyeessi
9. Eebbisee
10. Hawaasa

3.1.2. Testing writing Braille in Afan Oromo

Jaallatamoo barattootaa, jechoota asiin gaditti isiniif dubbifaman, xiyyeeffannaan barressaa.

1. Dhiqate
2. Godhame
3. Tooftaa
4. Gurraacha
5. Meeshaa
6. Omishne
7. Eenyu
8. Jaarmiyaa

9. Dhaga'amuu
10. Geggeffama

3.1.3. Testing Braille reading in English

Dear students, read the following listed words for you carefully.

1. Beginning
2. Middle
3. End
4. Light
5. What
6. Shorter
7. Three
8. Brother
9. Four
10. Seven
11. Seeds
12. Rainmaker
13. Environment
14. Always
15. Worried
16. Worth
17. Should
18. Before
19. Blowing
20. Zebra

3.1.4. Testing Braille writing in English

Dear students, write the following dictated words in Braille.

1. Bedroom
2. About

Appendix C

3.2.3. Testing Braille reading in Amharic

ወደ ተመሪዎች የ መጠተሉትን ቃላት በጥንቃቄ አንብቡ

1. ተቀጠፈ
2. ወየ በ
3. አወገዘ
4. ደለደለ
5. ጉምጉምታ
6. ፍጥነት
7. ማጥናት
8. መግንዘብ
9. አጻጻፍ
10. ደክመት
11. ወላጆቹን
12. ጠረጠረ
13. እንቁላል
14. ግጦሽ
15. ፋጩት
16. ጮኸ
17. ብድህ
18. ሕፃን
19. አረጋዊ
20. ጸለግ

3.2.4. Testing Braille writing in Amharic

የሚከተሉትን ቃላት አዳምገኛሁ በትክክል ጻፉ

1. አደት
2. ምህር
3. ትጋት
4. የጨጠትን
5. ጥላቻ
6. መጽሀፍ
7. ክምችት
8. ፍርፋሪ
9. ስህተት
10. መካከለኛ
11. ተነቃቃሪ
12. ተፍረጠረጠ
13. ገጽታዎች
14. ሥነ-ምግባር
15. ተክሎች
16. አጸደቃቸው
17. ዘላንነት
18. ተሰርቶዋል
19. ተከናወነ
20. መሰላሰብ