



## RESEARCH ARTICLE

### EDUCATIONAL ASSESSMENT OF STUDENTS WITH VISUAL IMPAIRMENT IN GONDAR INTEGRATED PRIMARY SCHOOLS

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#### ABSTRACT

This study aimed at assessing the current practices of educating students with visual impairment in the integrated primary schools of North and South Gondar. It employed qualitative research design. The data were collected using semi-structured interviews and participant- observation methods. Though students with visual impairment have good opportunities to learn and live together with the other students without disabilities; the findings revealed that the teachers have little knowledge, attitude and practice in teaching students with visual impairment in integrated education system. More specifically, teachers were not using their little knowledge of teaching in integrated classrooms. This is basically due to many challenges surrounding the integrated primary schools like scarcity of qualified special needs teachers, lack of commitment and motivation among the teachers and students, scarcity of teaching materials and equipments; and the availability of rigid curriculum. Finally, pertinent conclusions and recommendations were drawn from the findings of the study.

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## INTRODUCTION

Education is an important means through which economically and socially marginalized adults and children can be empowered to change their life chances, and obtain the means to participate more fully in their communities (UNESCO, 2005). The development of the field of special needs education has involved a series of stages during which education systems have explored different ways of responding to children with disabilities and to students who experience difficulties in learning (UNESCO, 2005). There was a debate on how to handle education of children with disabilities among educators and policy makers (Ekelindh and Brule, 2006). In the past efforts have been consisted of specialized program such as separate special institutions for the children served by specialist educators. Although it was well planned, the unfortunate consequences special program may be resulted in social exclusion. In recent years, the appropriateness of such separate system of education has been challenged, both from a human rights perspective (modern form of hiding children) and achieving its goal in serving special children. Next to segregated educational program, special education practices were moved into the mainstream an approach known as

Integration. Integration tended to be considered principally with special educational needs and implied learners changing or becoming ready for accommodation by the mainstream. In this approach the child is domesticated to the normal school system and the school is not expected to welcome the child to address her/his special needs. The main challenge with integration is that mainstreaming had not been accompanied by changes in the organization of the ordinary school, its curriculum, and teaching and learning strategies. This lack of organizational changes has proved to be one of the major barriers to the implementation of inclusive education. Revised thinking has thus led to a re-conceptualization of special needs to inclusive education. This view implies that progress is more likely if we recognized that difficulties experienced by pupils result from the ways in which schools are currently organized and from rigid teaching methods. It has been argued that schools need to be reformed and pedagogy needs to be improved in ways that will lend them to respond positively to pupils' diversity-seeing individual differences not as problems to be fixed, but as opportunities for enriching learning (Ainscow,1995;UNESCO,2005).

Inclusion is seen as a process of addressing and responding to the diversity of needs of all learners through increasing participation in learning, in cultures and communities. It involves changes and modifications in content, approaches, structures, and strategies, with a common vision which covers all children of the appropriate age range and a conviction that

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it is the responsibility of the regular system to educate all children. Inclusion is the process of systematically bringing together all children with or without disabilities regardless of the nature and severity of disability in natural environment where children learn and play". Inclusion means the practice of educating students with special needs in regular classes with needed accommodations and services instead of in special education classes (Erwin, 1993) in (Tirussew 2005).

Inclusion is a movement which directly links to improvements in the educational system as a whole. Inclusion is seen as a process of addressing and responding to the diversity of needs of all learners through increasing participation in learning, cultures and communities, and reducing exclusion with and from education. It involves changes and modifications in content, approaches, structures and strategies, with a common vision which covers all children of the appropriate age range and a conviction that it is the responsibility of the regular system to educate all children (UNESCO, 2005). Research studies have shown consistently the benefits of increasing access to opportunities for social interaction and learning for children with visual impairment. Teaching children in integrated schools carries inherent benefits of participation and learning within an environment of non-segregation, thus promoting the child's educational and social inclusion. However, children with visual impairment require additional support, educational modification and adaptation, e.g. in mobility or tactile awareness, enlarged print, special magnification devices like advanced computers, in addition to accessing the main curriculum in the mainstream sector increases the diversity of needs in the classroom and presents challenges for schools to become more educationally inclusive. Many children who have visual impairment are not currently in school or there are in the regular school without any support. Therefore, more action is needed to identify and provide early educational intervention for children who have visual impairment so as to develop inclusive education systems.

### Statement of the Problem

The real challenge of education is to meet the needs of all children with and without disabilities in the integrated classrooms. Educating children with visual impairment is not an easy process. It requires a lot of struggle and commitment to overcome pedagogical, attitudinal and social barriers. People have to change their established practices and modes of working. It is always simple and easy just to carry on operating in the well-trying procedures. Indeed, practical problems could be encountered to do with bringing attitudinal change and the reorganization of learning system is an important human issue, and change requires effort and time, innovation, and sensitivity (Tirussew, 2005). Educators did not agree on the best placement option and delivery of services concerning all children with disabilities. The trend generally seems moving from special setting to integration and recently to inclusive education (Ekelindh and Brule, 2006). From the socio-cultural perspective, the best place to educate children with any special need including children with visual impairment is that of an inclusive setting. Those who advocate inclusive setting said better achievement in academic performance and social development for children who have visual impairment. In line

with this, in Ethiopia the movement towards placing all children with special needs in the same learning environment with learners without having disability has been described as one of the most important issue in Special Needs Education Program Strategy of the ministry of education (MoE, 2006). The strategy underscored the need to provide education system that is open to all learners regardless of poverty, gender, ethnic background, language, learning difficulties and impairments in the same school (UNESCO, 2007). In addition the Education Sector Development Program-IV gave due attention to the use of inclusive setting to educate all children regardless of their differences (MoE, 2010). As the current practice of Amhara Regional State Education Bureau shows that different primary schools in region had already started to admit children with different special educational needs in the same setting for education purpose.

The schools currently admit and teach other students with children with visual impairment together regardless of their differences. But little has studied about the effectiveness of such move towards placing all learners together specially as to how such education placement really respond to the need of children with visual impairment. Therefore, this research attempted to assess and explore whether the integrated education system for children with visual impairment in the selected primary schools of North and South Gondar administrative zones are responsive for children with visual impairment or not. Bearing this in mind, this study assessed the practice of integrated education system of children with visual impairment in Some Selected Primary Schools of North and South Gondar Administrative Zones.

**To this end, the following basic research questions were answered:**

1. How does the assessment methods employed in the integrated classrooms promote the learning needs of students with visual impairment?
2. How do the instructional strategies used in the integrated classrooms respond to the needs of students with visual impairment?
3. What resources are available for students with visual impairment in the schools?
4. What are the opportunities children with visual impairment gains as a result of learning with their peers in integrated classrooms?
5. What are the major challenges students with visual impairment faces as a result of learning with their peers in integrated classrooms?

### Objective of the Study

#### General Objective

The general objective of this study was assessing the integrated education system of students with visual impairment in some selected primary schools of North and South Gondar Administrative Zones.

## Specific Objectives

The major purpose of this study was to investigate the way how students with visual impairments are treated in integrated settings, and the challenges facing them. The empirical investigation was guided by the following specific objectives: This study was aimed at:

- Identifying ways that teachers use to assess learning needs of students with visual impairments in the integrated classrooms;
- Assessing the instructional strategies teachers adapt for students with visual impairments in the integrated classrooms.
- Observing the resources available for students with visual impairment in the integrated classrooms.
- Identifying the opportunities students with visual impairment have in the integrated classrooms.
- Examining the challenges students with visual impairment faces in the integrated classrooms.

## Significance of the Study

The study benefits those who make attempts to provide quality education for all. It helps those individuals who are working and teaching on education of students with visual impairment in integrated schools. By showing how learning of students with visual impairment will be promoted, the school administrators, teachers, educational experts, governmental and nongovernmental organizations will understand the gap or achievements so as to render better services. Students with visual impairment will also benefit from the study if social and environmental barriers are solved. More over the study will have great importance in students with visual impairment achievement and minimizing school dropouts and grade repetition. It also has a contribution in achieving education for all and realization of fundamental human rights. Furthermore, the study can serve as a stepping stone for future studies on the practice of education of deaf students.

## Delimitation

This study has delimited to primary schools of North and South Gondar administrative zone primary schools, students with visual impairment, teachers of students with visual impairment, and school principals. Besides, this study had focused only on the assessment of the integrated education system of students with visual impairment.

## Operational Definition of Terms

**Students with Visual Impairment:** it refers to students who are totally blind and who have partial sight.

## The Concept of Visual Impairment

In this study, visual impairments referred to both blindness and low vision. Visual impairment can be defined legally and educationally. This study adopted educational definition of visual impairment which considers the ability or degree of a person to use visual ability educationally. Educationally, a

student with low vision is the one who has some vision, and therefore can read enlarged prints. On the other side, an educationally blind child is the one with very limited vision and thus relies on reading and writing by using the Braille system or by using audio tapes (Mastropieri & Scruggs, 2010).

## Chapter two

### Review of Related Literature

#### Historical Development of Education for Children with Visual Impairment

History reveals that the knowledge of children with visual impairment (VI) dates back to the ancient world. Records from ancient Egypt confirm that, unlike people with other significant impairments, people with VI were accepted by society. Homer, the famous Greek poet who produced Iliad and Odyssey, the master pieces of literature along all ages, was blind (Smith and Luckasson, 1995). During the middle ages, special case and attention were given to the children with VI by monasteries, resulting from the humanitarian treatment of the early Christian era. In 1178, a home was established for the blind and some trials of instruction were made by the duke of Bavaria. In 1254, a refuge for blind crusaders named the Hotel des Quinzevingts, was established in Paris in the following five hundred years, may other institutions which led to the establishment of the blind schools were built in various parts of western Europe (Baker, 1959). The first school for the blind, the institution for Blind youth, was founded in Paris in 1784 by Valentin Hauy, who conceived as a system of raised letters on the printed page. In 1800's Louis Braille system, a blind Frenchman developed a tactile system of reading and writing to days Braille system (Smith and Luckasson, 1995). In the limited states the first blind schools, the New England Asylum for the Blind, was opened in 1929. It was directed by Samuel Gridley Howe. The New York institute for the Blind and the Pennsylvania institution for the institution of the blind were established around 1832. These 19<sup>th</sup> century institutes were privately owned of well-to-do families (ibid). The first day classes in which the blind children were integrated with sighted one began in Scotland in 1872. In the United States, the first attempts to integrate the blind in to regular classes. Commenced people to allow the blind students to live at home. Hall also developed a mechanical Braille Writer, a small portable machine for taking notes and performing others written tasks. At those times students attended regular classes also received Braille education by special education teachers (ibid).

Smith and Luckasson (1995) also notes that many technological advances have provided great benefits for people with visual impairments. The development of telephone by Alexander Graham Bell and phonograph by Thomas Edison in 1876 and in 1877 respectively has great contribution for the overall betterment of the blind. The invention of radio broadcast in the United States in 1906 gave remarkable access to personal entertainment and information for people with visual impairment. Smith and Luckasson (1995) further pointed out that another important area has been realized is mobility and orientation. Between 1918 and 1925, dog guides were used to

help blind French and German Veterans of World War I. In the United States, dog guides were introduced in 1928 long cans were developed around 1860. Before Richard Hoover after whom the Hoover cane is named developed a mobility and orientation system in 1944. There was no systematic method for teaching individual's how to move freely in their environments.

### Education of Students with Visual Impairment in Ethiopia

Yusuf (1987) stated that before the 20<sup>th</sup> century, the type of education existed in Ethiopia was the church education. Its principal aim was to prepare the young people from the church services. The Typical means of Institution of the educational system was oral presentation. This helped the blind students to equally benefit from the teaching learning activities of the time. According to Ministry of Education and fine Arts materials (1960 E.C) cited in Mengistu (1989) the education of the blind began simultaneously with that of the sighted people. This was possible as the applied teaching method was oral and suited the personal conditions of the blind learners as well. As the result, the blind were able to serve in the church equally with sighted people. Rigby (1970:2) supported the view that "it was possible for blind children to receive this traditional type of education as reading and writing were kept to minimum and instruction was given orally known form of an organized integrated system of education for the blind". Rigby (1970) that 1930's western type of education system was introduced to Ethiopian Government school system. At that time no real attempts were made to include the blind persons in to regular class as and to consider their special demands. Attempts of introducing Braille reading and writing in to the classes were ignored and as the result the education of the blind, which had been given special attention in the traditional education was forced to decline. According to the information stated by MoE (1960) cited in Mengistu (1989), various modern blind schools were opened at different areas of the country starting from the third decade of the 20<sup>th</sup> century. The first school was opened in 1924 in Wellega Zone, DembiDollo, by American Presbyterian Church.

The second school for the blind, which later transferred to Bakko, Entoto Blind School (Addis Ababa) it was established by Swedish Evangelical Mission. Next to this Urael Blind School, today's Sebeta School for the blind was found in 1952 by Emperor Haile Silassie. It was transferred to Sebeta in 1956. The fourth blind school was opened in 1967 by the society for the interior, mission, named the Sudanese interior mission, was the Soddo Blind School. The next school was shashemeni blind school. It was established by Irish Mission in 1980.

### Academic Characteristics of Children with Visual Impairment

Taylor *et al.* (1995) reported that most of the academic activities of Children with Visual Impairment (CWVI) are visual in nature that their achievement is depressed to some extent when compared with the achievement of the sighted peers. Newland (1986:576) quoted by Ysseldyke and Algozzine (1995) had nearly a similar report that "with the

exception of unique problems of input and possible greater demand in processing, the fundamental learning procedures of blind students do not differ from those of non-impaired children. Thus, with effective help and support, children with visual impairment can be successful as their sighted age mates in academic performances."

### The Physical learning environment of integrated schools for CWVI

As to the classroom arrangement, Best (1992) explains that the classroom has to give free access which allows the child to move easily in the class. There must be adequately wide gaps between rows of desks. The learners may need access to electric socket in order to use tape recorder and other electronic devices. This dictates the position of the child's desk near a wall. It will be highly helpful if the child is given a chance to explore the classroom area and practice moving through routes when the class is free. The sound in the learning environment needs to be kept to the level that it does not pose obstacle to the effective learning of the child. "Totally blind children will use listening as important sources of information. The source environment therefore needs controlling and the child may be best helped in a position where he/she can hear the teacher very clearly and work with a minimum of distracting sounds" (Best, 1992:71-72).

### Adapted and Modified Material for CWVI

According to Tirussew (2000:91-92) the primary nature of educational programming for the children with VI involves the modification and adaptation of educational materials. In line with this Gearheart, Weishahn and Gearheart (1988) cited in Tirussew (2000) listed and described a brief description of the most commonly used material and equipment is as follows.

1. Braille writer, slate, and stylus. A Braille writer is a six-key machine that is manually operated and types Braille. The slate is metal form with openings the size of the Braille dot; the stylus is a pointed object used to emboss the dots.
2. Cassette tape records –may be used to take notes, formulate compositions, and listen to record texts or record arrangements.
3. Talking calculators, it is an electronic calculator presents results visually and auditory.
4. Closed circuit television, it is a system that enlarges pointed material on a television screen and can be adjusted to either black or white on black.

### The concept of Integration vis-à-vis the Education of Children with Visual impairment

"Integration" in its widest usage entails a process of making whole, of combining different elements into a unit. As used in special needs education, it refers to the education of pupils with special needs in ordinary schools. Integration provides a 'natural' environment where these pupils are along-side their peers and one friend from the isolation that is characteristic of much special schools placement (Hegarty, Pocklington and Lucas, 1988). The principle of educating children with disabilities and non-disabilities is described as "integration" in

Britanie,” Mainstreaming” in the United States of America, and “inclusive education “in Scandinavian countries and Canada. These three terms reflect similar concept, i.e. the participation of children with disabilities in regular education system (Warnock, 1981).

According to Snowdon (1976) integration for students with disabilities means “the absence of segregation, social acceptance being able to treated like everybody else, right to work.... to be educated with one’s un handicapped peers...” (PP, 40).

Sodor (1980) also provides some elaboration on similar concepts. He outlines four different forms of integration: physical, social, functional, and societal integration. The main idea is the reduction of distance between the children with disabilities and non-disability groups. For example, physical integration, which corresponds to locational integration, means the reduction of physical distance between the children with disabilities and non-disabilities by means of facility, organisational and structural integration. Societal integration means the creation of opportunities for children with and without disabilities groups to get to know each other and functional integration means the reduction of functional distance between these two groups by joint utilization of educational resources.

On the other hand Warnock distinguishes three main forms of integration in terms of association: locational, social and functional. Locational integration exists where special unites or classes are set up in ordinary schools or where a special school and ordinary schools share the same site. Social integration is where children attending a special class or unit eat, play and consort with the other children, and possibly share organised out-of-classroom activities and is achieved when locational and social integration lead to ‘joint participation in educational activities....where children with special needs join, part-time or full-time, the regular classes of the school, and make a full contribution to the activity of the school’ (PP.100-101). According to Rogers (1993:1), mainstreaming:

Has generally been used to refer to the selective placement of special educational students in one or more “regular” education classes----[ mainstreaming generally assumes that a student must “earn” his or her opportunity to be mainstreamed through the ability to “Keeping” with the work assigned by the teacher to other students in the class. In general, ‘Integration’ implies the association, but not necessary the identical treatment, of children with and without disabilities in a regular school.

### **Equality and Diversity**

Integration is an educational approach based on equality, grounded in the UDHR (1948). This entails that all students, regardless of any form of differences, should enjoy the provision of the national curriculum and be educated like others (Garner & Davies, 2001). The fact is that; students in inclusive classrooms have different learning needs because of different backgrounds and experiences (Johnsen, 2001). These differences and diversities should be acknowledged, and

attempts should be made to make use of these differences in order to meet their needs through preparing conducive learning and teaching environments (Johnsen, 2001; UNESCO, 1994). This should be done because every student, regardless of how different he or she is, has the right to be educated like other students.

### **Learning diversities and Special Needs**

Nowadays, there is a growing number of students with learning needs in inclusive schools, such as students with physical, sensory, emotional, behavioral and learning difficulties (Stakes & Hornby, 2000). A study conducted in New Brunswick, shows that there is an increased number of students with diverse learning needs and visual impairment enrolled in inclusive classes (NBACL, 2007). It is argued that, learning needs should be respected by teachers through modification and adaptation of the classroom environment, to help students achieve their special educational needs (Johnsen, 2001). Special Educational Needs, are the needs a student with learning difficulties requires to benefit from the education system like other students in an inclusive classroom (Garner & Davies, 2001). A child is said to have special educational needs, if he or she has learning difficulties that prevent him or her to benefit from the lesson, and therefore requires special educational programmes. Special educational services provided by the teacher and other educational stakeholders to cater for the needs of students, is known as Special Needs Education (SNE) (Hegarty, 1993). SNE considers approaches that respect children the way they are as individuals, instead of focusing on shaping them in the way we want them to be, thereby creating categories (Mmbaga, 2002). Meeting special educational needs is a core of Education For All agenda. EFA does not mean just sending all children to school and putting them in the class ready for a lesson. The aim of EFA, in addition to sending these children to school, is to emphasize meeting the educational needs of children, with learning difficulties and differences. Therefore, a teacher in the class should consider of these differences in learning needs and styles among students, and try as much as possible to meet them (Mmbaga, 2002).

### **Visual Impairment and its Impact on Learning**

Visual impairment can be defined legally and educationally. Legal definition describes visual impairment by considering the visual acuity of a person. It describes a blind person as the one having visual acuity of 20/200 or less than that, even by using optical devices. This means that; a person with blindness can see an object at 20 feet whereas a sighted person can see at 200 feet. A legal definition considers a person with low vision as having visual acuity of 20/70 meaning that; a person with low vision can see an object at 20 feet whereas a person with normal vision can see at 70 feet (Spungin, 2002). In this study, educational definition (refer section 1.3.2 in chapter one), is relevant because it shows directly the impacts of visual impairments on the learning process of a student. Visual impairment can be congenital, occurring at or shortly after birth or acquired through other means later in life (Sacks & Silberman, 1998). Some of the congenital causes of visual impairments include conditions like retinopathy, glaucoma,

cortical visual impairment, coloboma, optical nerve hypoplasia etc. Visual impairment can also be acquired later in life as a result of cancer, cataract, trauma, accidents, nutrition etc. (Kirk *et al.*, 2011). Before imposing any teaching to students with visual impairments, it is very important that a teacher knows how the loss in vision influence the learning process (Sacks & Silberman, 1998). Visual information is crucial in helping children observe and interpret what happens in the environment. It is also an important prerequisite for conceptual development in a student's learning. Malformation and destruction of this part of the body, brings about a reduced amount of sensory data to the learner, leading to deficit or delay in various skills learned through watching and imitation from others. This impacts language development, reasoning skills, problem solving abilities and abstract thinking. This finally causes great impact on the individual's learning and performance, because a student cannot observe and use visual information to interpret various learning situations happening in the environment (Bishop, 1996; Fraser & Maguvhe, 2008; Webster & Roe, 1998). If visual impairment occurs during early childhood, cognitive and language development is impaired (Bishop, 1996). But if the loss of vision is after five years, below which visual memories cannot be retained, then there will be some visual memories. This visual memory will be very helpful in the learning process through construction and formation of images, and concepts later by relating the new concept and experience acquired earlier in life (Webster & Roe, 1998).

There are basically three ways through which students with visual impairments can get information from the environments. Verbal description is the most important source of information to visually impaired students. However, verbal description provided by others is always incomplete and cannot satisfy the person's needs. Another way is the use tactile stimuli. However, a tactile method is also not effective, because a student needs to feel an object repeatedly in order to grasp the image of the object. Finally, students with visual impairments rely on self-exploration about the world. This way is limited in amount of information that can be accessible to students with visual impairments. All in all, these modalities together cannot effectively compensate visual stimuli, they are there just to reduce the impacts to learning caused by lack of vision (Spungin, 2002). Therefore a teacher teaching students with visual impairments in inclusive classrooms needs to plan teaching based on these assumptions.

### Learning Environment

Generally adaptation of teaching and learning environment is at the core of successful inclusive education. If the environment in which learning occurs is not supportive to students with visual impairments, their learning will automatically be interrupted (Johnsen, 2001). Research shows that the context in which the learning occurs; inflexible curriculum and inappropriate assessment procedures, are some of the factors leading to ineffective learning among students with visual impairments (Fraser & Maguvhe, 2008). Inclusive learning environment should be different from the ordinary learning environment, because an inclusive classroom contains students with different learning needs and abilities (Simon

*et al.*, 2010). For quality learning of students with visual impairments, some features and conditions should be adhered to. These include special services from specialized teachers, teaching and learning resources, as well as assistive devices like braille and magnifying glasses and the use of flexible teaching methods (Webster & Roe, 1998; Simon *et al.*, 2010). Inclusive learning environment, therefore, is an environment that allows and supports the potential learning of all students, regardless of the learning differences and diversities these students possess in the class (Simon *et al.*, 2010). Therefore, there is a need for all educational stakeholders including teachers to consider restructuring of the education system and practices, in order to help these students learn better in inclusive settings (Fraser & Maguvhe, 2008).

### Assessment of Learners' Needs

Assessment of learners refers to the systematic procedures of gathering and identifying relevant educational information about a student. The main aim is to understand the specific needs of the student (McLoughlin & Lewis, 2005). Quality teaching and learning can only be achieved when student's background and prior knowledge, is assessed and known. Assessment of the learning needs of a student, with visual impairment, prior to the beginning of the course of study is important for both the student and the teacher. This is because it allows for an understanding of the student's academic ability, learning styles and learning needs (Spungin, 2002). Parents and peers are therefore important partners in provision of information about the learning of students with visual impairments. This is because parents know the needs and interests of their children better than other people. On top of that they know much about their children's learning problems and therefore can suggest better educational intervention (Johnsen, 2001; Spungin, 2002). Assessment can also be through reading students' academic records (Spungin, 2002). Assessment is important for knowing whether a student will need low vision devices, large prints, magnifiers and lenses, Braille etc.

It is also important to know the learning style, ability and learning pace of the student (Spungin, 2002). Assessment of learners with special educational needs, should aid teachers to plan teaching and meeting individual needs of the student. All these information about students learning should be stipulated and stated in the Individualized Education Plan (IEP) (McLoughlin & Lewis, 2005; Mitchell, 2008; Spungin, 2002). However, in many schools this information, which is important for student's learning, is not gathered in most cases (Johnsen, 2001; Smidt, 2009).

### Adaptive Teaching Methods for Students with Visual Impairments

For a very long time, learning has been considered as a product of teaching. Teachers have been mostly using non-participatory strategies which are not effective in teaching. An effective teaching is more than merely transmission of information from teachers to students, but rather a complex interaction between the two parts (Webster & Roe, 1998). Therefore, a paradigm shift is required from non-participatory, traditional teaching to modern teaching that involves an

interaction between a teacher and a student, where different needs of students are considered (Bowring- Carr & West-Burnham, 1997). However, teaching in inclusive classrooms is not easy, since teaching needs to be more individualized as compared to normal classrooms, where there are little diversities among students (Peters, 2003). Furthermore, it has been pointed out that, the degree of visual abilities varies among the students leading to variation in learning needs and learning strategies for students (Salisbury, 2008). It is this degree of severity that will determine the extent of understanding how the world is organized, and how it can be acted upon (Webster &Roe, 1998). As a result, students with visual impairments require unique ways of addressing their academic problems. Therefore, it is important that teachers understand this desire to be able to predetermine teaching approaches to be used for effective teaching (Salisbury, 2008). The support these teachers should provide to students with visual impairments should base on the use of different sensory stimulations, such as sounds, smells, textures and shapes, to help them build a picture of the world (Webster &Roe, 1998). Research shows that, quality teachers are the ones, who are the best at including students with diverse learning needs (Mastropieri & Scruggs, 2010). Since inclusive education insists on adaptive teaching, a quality teacher should be the one who considers these adaptations for students' learning. Although we talk of these modifications and adaptations of teaching and learning environment, in some instances adaptation is not necessary, meaning that, teaching strategies and other practices applied to sighted students can also be applied to students with visual impairment (Raymond, 1995; Spungin, 2002). The following are several methods teachers use to teach students with visual impairments in inclusive classroom. Some of these methods are used as they are but other methods require adaptations to work better for students with visual impairments.

### **Encouraging Collaborative Learning**

It is believed that in a learning process students differ in capabilities. Students with low ability will learn from their fellow capable peers. Cooperative learning among students of different learning capabilities and learning needs, in an inclusive classroom, has proved to be effective in promoting academic achievement, positive attitude towards the subject, and improving social interaction among students (Johnson & Johnson, 1986; Lypsky & Gartner, 1997; Mastropieri & Scruggs, 2010; Vygotsky, 1978; Wade, 2000). Cooperative group learning involves learners working together in small learning groups. This helps students to help each other to carry out different tasks. It is a good strategy of teaching students with visual impairment, particularly in the mixed ability groups. It is especially important in third world countries where classes are very large (Mitchell, 2008). In these groups, students with visual impairments should be paired with their fellow sighted students who will help them to organize their works, find correct pages and repeat teacher's instructions (UNESCO, 2001).

### **Using Questions and Answers**

Oral method of giving instructions and receiving responses from the students can also be a good option. A teacher of

students with visual impairment can write down the answers given out orally by a student with visual impairment. Moreover, a tape recorder can be used to record the answers the student is giving. However, through this way, a student cannot review the answers he or she has given for possible correction. Therefore, students with visual impairment and teachers of students with visual impairment should be consulted before the test is taken, in order to find a better way of assessing a student with visual impairment (Spungin, 2002).

### **Adapting Written Texts**

To help students with visual impairment, teaching materials need to be adapted. For example printed text can be adapted through increasing the font size, bolding the text, increasing contrast, adding colour, and adjusting spaces between characters. However, the extent of these adaptations depends solely on the severity of visual defects and the needs of the student concerned (Bishop, 1996; Mastropieri & Scruggs, 2010). Therefore, it is important to consult a specialist teacher on preparation of materials prior to the lesson; because different students use different materials depending on the degree of their visual impairment (Spungin, 2002). Meanwhile, students with low vision should be provided with a copy of notes which are written on the board or presented on a projector. A specialized teacher for students with visual impairment, should help to clarify the lesson to them, and if possible, should teach them before the main teaching session starts (Spungin, 2002). If a teacher is writing on the blackboard or uses visual aids, it is important that he or she uses large writing text on the blackboard or visual aids. In addition a teacher may use colored chalks (UNESCO, 2001).

### **The Use of Audio, Optical and Non-Optical Devices**

Since students with visual impairments rely mainly on verbal information for their learning, audio devices should be incorporated to aid the teaching process. These include things like audio cassettes and compact discs. However, lesson contents with diagrams and tables cannot be well explained in an audio format (Salisbury, 2008). Moreover, a lesson can be tape recorded and given to students with visual impairments for later playback at their convenient time (UNESCO, 2001). Moreover, if a videotape for example has to be shown, it is wise to show it to students with visual impairment so that through a specialized teacher's or a classmate's explanation, they understand all the visual concepts in it before the class watch it. For a film with sub titles, a classmate or teacher can read aloud to the class to help those with visual impairment (Spungin, 2002). Optical devices such as eye glasses, magnifiers and telescopes use lenses to increase a person's residual vision. They are normally prescribed by a medical specialist while non-optical devices do not incorporate a lens and do not need to be prescribed by a specialist. Things like large prints, braille and braille writer, tape recorders, book stands, recorded and talking, books and calculators etc., are examples of non-optical devices (Simon *et al.*, 2010). The role of both optical and non-optical devices is to improve vision and increase functionality of students with visual impairments through the use of other senses. It is the role of a teacher to encourage students with visual impairment to use visual

devices and assistive technologies to help them with vision (Spungin, 2002).

### The Use of Tactile Materials

Teachers must be aware, that students with blindness have deficit in conceptual experiences and understanding due to absence of visual ability, therefore adaptations of teaching materials becomes paramount, if they have to learn all the things other students without visual impairments learn in the class. To help this, therefore, these students should be taught physically using concrete experiences (Bishop, 1996; Pauline, 2008).

Following this proposition, these students should be given an opportunity to explore tactile diagrams. Tactile diagrams are very important to understand images and concepts which are difficult to explain and describe in words. Therefore, they should apparently be used when shapes and patterns are very important to understand the concept but also, when the real objects are not available to help teaching (Salisbury, 2008). Tactile images or diagrams can be drawn on braille papers using a special mat and stylus. This produces a relief image or diagram that can be easily felt (UNESCO, 2001).

### Exploring Through Touch

Perception of the spatial forms of objects and their relative positions, in the absence of vision, must be achieved through touch. Although touch is a very important source of information about the environment for children with impaired vision, there are many limitations to tactile perception. Touch requires children to search out objects, to travel to their locations to discover their characteristics, and for objects to be within reach. Representations of objects through touch will require small fragments of information, acquired serially, to be put together to form an image of the whole.

For the infant with a visual impairment who is not yet mobile, objects have to be found nearby or be supplied in order to be explored. It may be difficult for the child to understand that the object still exists if it rolls away. For the child who sees clearly, checking whether an object still exists, though not immediately in view, is a matter of looking around to find its new location. Without good vision, searching around to test the permanence of an object is much more uncertain. In terms of the conceptual development of infants with visual impairments, much has been made of the difficulties in establishing object permanence, which signals an important shift in understanding about the physical world 'outside oneself, and which is linked to vocabulary growth (Bigelow, 1986, 1990).

In order to understand the nature of the environment that surrounds them, children with visual impairments will have to explore single elements and construct a picture or map of the surroundings by adding together various sensory impressions. For example, asked to give directions on how to get from the playground to the school office, a child with a visual impairment may break the route up into a progression of locations: '...then there's a doorway ...then a ramp...then the

boys' cloakroom...'. This use of landmarks suggests that the route is experienced and represented by the child as separate segments encountered over time, and not as a whole entity.

There is some evidence to suggest that all children, including those with good vision, start out by representing spatial relations in terms of landmarks or a succession of points on a route. Integrated or survey-like spatial maps of whole situations are probably not typical of children's thinking until the age of 3 or 4 years (Spencer *et al*, 1989). Even then, in more complex situations, children (and adults) may rely on landmarks and route sequences to find their way. However, by school age, most sighted children will be capable of constructing an inner map of the environment in order to locate things or find their way about. This kind of direct and effortless awareness of a whole spatial context would be very difficult to achieve through sensory information other than vision.

Vision enables us to construct a coherent sense of the physical environment and our place in it, without struggling to remember. On entering an unfamiliar classroom, a sighted child is able to take in something of the whole at a glance, and perhaps to work out the overall position of the room in relation to other, more familiar, places, such as the library, computer room, dining hall or the secretary's office. Paying closer attention to details, the same child will be able to focus selectively on a classroom charter pinned to the wall, signs that identify work areas, such as a listening centre or the writing corner, or children's work pinned to a display board. For the child with a visual impairment, constructing an inner map of this new classroom presents a problem of synthesising information from the interrogation of small, local details to achieve a functional sense of the whole, which must then be largely memorised. Because children who see clearly do not have to touch objects to be aware of their existence, they can begin to learn much earlier (before they are mobile) about the characteristics of objects and their relative positions in space. Importantly, for many environmental features, direct contact is impossible (sky, stars, moon, smoke) or inadvisable (fire, boiling water). Some objects are too big to be understood by touch (buildings, mountains), some too small (insects, seeds), and some too fragile (soap bubbles, spiders web). Representations of objects or space achieved through sensory modalities other than vision may be less detailed, accurate, precise or continuous, and make greater demands on recall.

### Extra Time Allowance

Students with visual impairment complete their work very slowly due to the nature of their impairment (Mastropieri & Scruggs, 2010), Therefore, extra time allowance is extremely important for them to process visual information, and complete their written assignments (Salisbury, 2008). For example, students with low vision take longer time to read a text than students with normal vision. Also reading and writing in braille as well as getting information from tactile sources for students with blindness consumes a lot of time. At the same time, students with blindness need much time to integrate information coming through hearing (Best, 1992; Mastropieri & Scruggs, 2010). Generally, it is acceptable to add half of the

time for students with low vision, and twice as much for students with blindness (Spungin, 2002). Many external examinations recognize this requirement and, therefore, give them allowance of up to 100% additional time for students with visual impairments (Salisbury, 2008).

### Summary

Ethiopia is a signatory of many of the international declarations, conventions and policies of which insist on the theme "Education for All". However, its implementation to achieve EFA goal as the way towards integrated education is far from reality due to many challenges facing the education system in the country. Some of these challenges include lack of effective plans for implementing the policies, lack of enough qualified teachers to teach in integrated classrooms, insufficient funds and teaching materials, and negative attitude and lack of awareness among the community members. Therefore, if Ethiopia is a country really needs to achieve quality integrated education for all students with special needs and visual impairments in particular, there is no shortcut. The government has to either introduce effective specific policies on inclusion or lay down strategies and programs based on the existing policies for implementation, monitoring and evaluation of integrated practices in the country.

## Chapter Three

### RESEARCH DESIGN AND METHOD

This chapter describes in detail the procedures and methods that were used in collecting and analyzing data from the field. Several aspects are discussed here. These include, research approach, a design of the study (mixed design), methods of data collection i.e. questionnaire, Interview and observation. Other aspects are research site, population sampling, characteristics and the size of the sample as well as data analysis process. Furthermore, issues of ethical considerations and steps taken to achieve them are presented, followed by limitations and delimitations of the study.

#### Research Design

In this study both quantitative and qualitative research approach had employed. Both research approaches was preferred to better understanding of the research problem by converging both qualitative and quantitative data. In the study the social communication style of students with visual impairment, the overall interaction in the schools, instructional strategies used and the opportunities and challenges students faced will explored using questionnaire, interview and observation.

#### Participants and Sampling

Elementary schools which have children with visual impairment had participated in the research. In the study non probability sampling technique and purposive sampling method was used. Among one to eighth grades found in the primary schools only four classes that are 5-8 grade students had selected purposely using purposive sampling. Moreover all

teachers of students with visual impairment s and school directors were selected purposively to participate in the study. The reason for focusing only at grade 5 to 8 among 1 to 8 grades is that, these students have more experiences and knowledge in their education life. It is also believed that they can understand the questionnaire and the interview and able to respond better than lower grades. In addition to this in each selected schools integration is allowed in from grade five.

#### Data Collection Instruments

In order to obtain the necessary data for the study; questionnaire, interview and observation was employed. After thorough reading and revision of different materials on the education of children with visual impairment the instruments had developed by the researchers. It was then evaluated by peers and instructors from the department of Special Needs and Inclusive Education. Finally improvements had made based up on the comments that was obtained. The questionnaire had open ended and close ended items.

#### Questionnaire

The questionnaire was administered for teachers of students with visual impairment. The main theme of the questionnaire was developed by the researcher based on the objectives of the study and review of related literature. The questionnaire was close ended and open ended questionnaires. The items had assessed the resources, assessment methods, instructional strategies employed and the opportunities and challenges of these students in the schools.

#### Observation

The classroom observation had focused on the involvement of students with visual impairment in the teaching and learning process, resources, assessment methods, and instructional strategies employed.

#### Interview

Interview guide questions were prepared separately for school directors and students with visual impairment. Interview guide questions were constructed to enrich the data obtained from questionnaire and observations.

#### Administration

First training was given to assistant data collectors on how to handle and administer questionnaires. Interviews and observations were employed by the researchers. In addition, participants were informed about the secrecy of their responses. Then, using questionnaire, interviews and observations, data were collected and administered for each item to those respondents and record their responses.

#### Data Analysis Mechanism

To analyze the qualitative data, thematic analysis technique was employed. In doing so, the following tasks were carried out step-by-step. Initially, the researcher had organized and

prepared the data for analysis. This involved, transcribing interviews, typing up field observations or sorting and arranging the data into different types depending on the sources of information from (school directors and students with visual impairment). The next task was reading through all the data so as to obtain a general sense of information. The third step was coding- the process of organizing the material into segments of text before bringing meaning to information (Miles & Huberman, 1984; as cited in Creswell, 2009). At the next step, the researcher had used the coding process, and generated categories or themes for analysis. These themes have appeared as a major finding in this study. Then, the generated themes were discussed and interpreted simultaneously. As far as the quantitative data concerned, data obtained through questionnaire was analyzed using percentage.

### Ethical Considerations

Ethical consideration is part of the research works, and cannot be avoided (Bryman, 2004). Observation of research ethics helps to protect the rights of the research participants, develop a sense of trust with them, and promote the integrity of the research (Israel & Hay, 2006). As the way of observing ethics in research, several attempts were taken. Firstly, I filled a form to inquire permission from the selected primary schools. The letter I got from the selected schools was a sign of recognizing my project and approving me to continue with the project. Secondly, I sought permission from the relevant directors in the schools. As a University employee, a Research clearance from the department was sought. This helped me to obtain permission from the District officers to go to a specific school where data were collected. According to Creswell (2009) and Kombo & Tromp (2006), it is mandatory that research participants get informed before they are approached for data collection. To comply with this, the respondents were informed before data collection through the use of consent letters. Consent letters contained important information about this particular research, and the importance of their participation in the study. The aim was to seek their consent, ensure voluntary participation and provision of information, as well as giving them free room to withdraw from the research participation any time they wished to (Creswell, 2009; Kombo & Tromp, 2006).

Creswell (2009) and Kombo & Tromp (2006) insist on anonymity and confidentiality in research study. In this study, the names of the schools and participants in the entire study are kept anonymous.

### Chapter Four

## DISCUSSION, CONCLUSION AND RECOMMENDATION

This chapter presents analyses and discusses the data collected from the field. The study's aim was to investigate the integrated education system of students with visual impairment in some selected primary schools of North and South Gondar Administrative Zones and the challenges facing them. The study was guided by five research objectives. The first was identifying ways that teachers use to assess learning needs of

students with visual impairments in the integrated classrooms. The second was assessing the instructional strategies teachers adapt for students with visual impairments in the integrated classrooms. The third was observing the resources available for students with visual impairment in the integrated classrooms. Finally, identifying the opportunities and challenges of students with visual impairment in the integrated classrooms were the main objectives of this research. Data were collected using questionnaire, interview and observation methods. Observation method was used to collect data for study field. It was important to use observation method for this question in order to have plenty of information on the adaptive methods, a key aspect of this study.

### Identification of Students' Learning Needs

It was important to know how teachers assess the needs of students with visual impairments so as to apply appropriate adapted and modified teaching. Therefore, it was important to gather information from these teachers on how they assess learning needs and learning styles, of the students with visual impairments in their classes in order to plan and implement teaching properly. In answering this question, most teachers (90%) mentioned three main ways they use to assess students with learning needs, which are; contacting a student to know his/ her background, using previous records and observing student's performance in the class.

The first one was direct contact with a student to know their learning problems. This was mentioned by almost all teachers. The director of school "D" said that:

*I normally ask students about their life **background and learning problems** regularly when I notice some learning difficulties in them. I also share with my fellow teachers on the students' problems and find solution together.*

Another way was also mentioned by the school director of "DB". This school director pointed out that to **use students' previous academic records** to assess students' learning and performance abilities.

### Discussion

An assessment of student's learning needs, before the start of the course of study, is very important. Assessment is important because students have different cognition, learning needs and learning styles, due to different experiences, background and the way these children have been interacting with other members of the society (Vygotsky, 1978). Assessment will help a teacher to know the learning ability, learning styles and learning needs of the student, in order to plan teaching accordingly. Whether a student needs discussion groups, questions and answers strategies, large prints, magnifiers and lenses, Braille etc., should be known before the process of teaching starts. These should also be shown in the Individualized Education Plan (IEP) for further implementation (Spungin, 2002). Teachers seemed to consider this importance; that is why they talked about ways they use to identify the needs of students. 90% of the teachers have stated that communication with the students directly to discover their

backgrounds and learning problems is a key instrument while assessing their learning needs. This is also emphasized by Johnsen (2001) who points out that a student is the most important source of information, about his or her learning needs, through regular communication to discover their interests and priorities, as well as their preferred learning styles. School directors **D** and **DB** stressed on **previous academic records and participation in the class**, as ways of assessing the learning needs of the students. They said that through student's previous and current performance in the class, a teacher can be able to identify what a student needs in order to learn better. Also, a teacher can use activeness of a student in the classroom in answering questions, and participation in various classroom activities. Spungin (2002) stressed that, reading academic records, can help a teacher to know educational needs of the student. Johnsen (2001) supports this, and comments on the importance of formal and informal assessment of learner's performances in the class to identify the needs of the students.

The purpose of assessing students' learning needs is to help a teacher plan teaching and prepare conducive teaching learning environment that is relevant to the assessed needs (Best, 1992). However, 10% of the school teachers **reported** that **lack of knowledge** on how to identify the learning needs of students with visual impairments in integrated classrooms among teachers is the main problem. This seems true considering the statement from the school director of **D**, who confirmed by saying that some teachers has no the appropriate skill and knowledge of identifying the needs of these students. This supports the findings of the study done in Tanzania by Lewis & Little (2007), which revealed that there is a lack of awareness among teachers on the knowledge of integrated education (Lewis & Little, 2007). Furthermore, the study conducted in similar district, also in Tanzania, found that, teachers teach without considering individual needs of students. Teachers were teaching as if all students in the class were sighted using talk and chalk methods (Mmbaga, 2002). Through this way, it is obvious that, students with visual impairment were the mostly affected. Furthermore, **65%** of teacher mentioned the **large number of students in the class** as the major setback to their failure to meet students' learning needs. They stated that many classes have a minimum of 50 students. It has always been emphasized that teaching in integrated classrooms, and meeting the educational needs of students, is always difficult and challenging. This is because teaching in integrated classroom intends to identify individual needs of the students and meeting them accordingly (Peters, 2003). The lack of knowledge among teachers and large number of students in integrated classrooms may suggest planning and implementation of a teaching process that does not meet the needs of all students in integrated classrooms. Due to the nature of their disability, it is likely that students with visual impairments are mostly affected.

### Adaptive Teaching Methods

Through the interview, school directors of **D** and **DB** admitted that it is difficult to use a single method of teaching because like other students, students with visual impairments learn differently, and have different learning needs. So teachers

claimed to use different methods depending on the situation. 50 % of Teachers in both North and South Gondar narrated that:

**It is difficult to use a single method** for teaching because they learn differently; Single method does not satisfy the needs of all.

Supporting this issue, students of the integrated primary school gave the following statement:

**Teachers mostly use many methods.** For example, if they know that we have experience of the topic, they use questions. After some answers they elaborate then continue teaching. Other times they use group discussions or lecturing methods depending on the nature of the topic.

On the other hand some students stated that, they mentioned several methods teachers use to teach students with visual impairments in the class (these methods are discussed below). This is an indication that, they have the same belief that, students with visual impairments need different methods of teaching. Furthermore, the classroom observation showed the researchers as some teachers switching from one method to the other in a single lesson. However, these methods were mostly common to all students. For instance, a teacher could change from question and answer to a lecture method without considering students with visual impairments current status.

### Discussion

Responses given by 80% of teachers shown that, teachers are aware of an integrated classroom possess a variety of students with diverse learning needs, and therefore they should adapt teaching and use different methods in order to meet the needs of every student in the class (NBACL, 2007). However, teaching students with visual impairments in integrated classroom is not easy; it is a challenge since teaching needs to be more specific aiming at meeting the needs of each student (Peters, 2003). It was observed from the teachers, that teaching and meeting the needs of students with visual impairments in integrated classroom, is very difficult, since most of the time teachers were using methods common to all students. Though, this argument is raised, Raymond (1995) argues that it is not always that the specific needs of these students can be met by the use of specialized teaching, instead they can be met by using strategies that are common to all students, regardless of their learning differences. It can be said that, this is the reason for the observed situation, for teachers using common strategies to teach all students. Still, when lack of participation and involvement of students with visual impairments is considered, one can maintain the argument that; lack of knowledge of teaching in inclusive classrooms was the reason for using common methods.

Studies done in Temeke and Same districts, in Tanzania prove that teachers do not have enough knowledge of teaching in inclusive classrooms (Lewis & Little, 2007; Miles, 2003; Mmbaga, 2002). However, lack of knowledge among teachers seems to be a global problem, since the study done in Turkey and Spain, also showed lack of knowledge among teachers

who are teaching students with visual impairments (Kesiktas & Akcamete, 2011; Simon *et al.*, 2010). At this juncture, there are two major reasons that can be convincing, to believe that, teachers were teaching that way because of the lack of knowledge of teaching students with visual impairments. One of the reasons is that, the answers given by teachers during the interview session and the nature of their teaching which was not aiming at meeting the needs of students with visual impairments. Another reason is that, lack of knowledge among teachers of teaching students with special needs and with visual impairment in particular is a global issue. Many studies documented the lack of knowledge among teachers. Therefore, one can be easily convinced that, teachers were teaching that way because of the lack of knowledge and not otherwise. The following are different methods mentioned by teachers to be used in teaching students with visual impairments in inclusive classrooms.

### Teaching Resources

100% of the teachers claimed about the usage of teaching materials. They said that using resource materials for students with visual impairments are very important. The challenge is the absence of teaching materials and lack of knowledge to adapt them for students with visual impairment, if they happen to be available. The school director of "D" stated that: Most teachers use teaching materials but they are rarely available. They are very important to be used especially in integrated classrooms.

When the school director of school "DB" was asked he stated that teachers have efforts to modify these teaching materials, when they are available, the answer given was similar with what the school director of D said. They said that teachers do not adapt them, because they do not have knowledge of adapting them.

The school director of D narrated:

*Frankly speaking, most (90%) of teachers cannot adapt teaching materials because they do not know how to modify them to specific needs of students in the class. I think this is the task of special needs teachers.*

Insisting on adapting teaching resources, with the focus to the use of models, school director D stated:

*Using models for students with visual impairments would have been better to help them understand different concepts in the class but preparation of these models is difficult.*

Not only school director D but also the school director of DB also added that:

*Teachers' subject is good if there could be enough materials like touching maps. This makes them to rely their learning through imaginations. To overcome the problem of teaching materials, school director D stated to take initiatives, through exerting pressure on the department to provide them with teaching materials, and arranging academic tours to help students with visual impairment explore the natural environment and learn better. Classroom observation showed that; all teachers did not possess any other teaching material except the lesson notes and lesson plans. In addition, all*

teachers had some text books in their hands which they did not use in the class.

### Discussion

Answers from teachers and classroom observation suggest that teachers see the importance of teaching materials in the class for students, not only for the students with visual impairments but all students in general. This is consistent with the proposition put forward by studies done in the country. The findings of these studies propose that, integrated education for students with visual impairments becomes successfully implemented if appropriate teaching materials are available (ICC, 2008; Mboya *et al.*, 2008; Mmbaga, 2002; URT, 2008). Furthermore, the findings from this study, and other studies in the country, are consistent with the global view of this contention. Pauline (2003) claims that, the use and adaptations of teaching materials to suit the needs of students with visual impairments in integrated classroom, is very important. For instance, the use and adaptation of printed text through enlargement, increasing the font sizes, bolding the printed materials, increasing contrast, is very important for students with low vision (Bishop, 1996; Mastropieri & Scruggs, 2010). If a videotape has to be shown, it is wise to show it to students with visual impairment so that through a specialized teacher's or a classmate's explanation, they understand all the visual concepts in it before the class watch it. For a film with sub titles, a classmate or teacher can read aloud to the class to help those with visual impairment (Spungin, 2002).

Moreover, the school directors said that; they are not using teaching materials, because **teaching materials are not available**. These findings agree with the opinions that relevant teaching materials, to students with visual impairments, are not readily available due to lack of enough funds (Mboya *et al.*, 2008; URT, 2008). This situation is said to affect mostly the developing countries including Ethiopia and, therefore, hindering inclusive practices in these countries (Zindi, 1997). Apart from lack of these teaching materials, 90% of the teachers acknowledged that, they **lack the knowledge and skills** of adapting these teaching materials to become relevant to the needs of students with visual impairments (Lewis & Little, 2007; Miles, 2003; Simon *et al.*, 2010). These reasons also maybe suggestive to why classroom observation showed no teacher entering the class with teaching materials. Considering their importance, the lack of teaching materials to teach students with visual impairments in integrated classrooms, suggests a big gap between the needs of students with visual impairments, and what is actually achieved by these teachers in the integrated classrooms. This situation makes the quality of education to these students to be questionable.

*I look at student's participation in the class, and performance in different exams and assignments. If the performance is not good, I call and talk to him or her immediately.*

On the other hand, teacher D acknowledged the importance of assessing learning needs of students with visual impairment, but he said, has no way of doing this assessment. Challenges to assessment of students' needs were mentioned. For example,

teacher C admitted that still there is lack of proper ways of assessing the students with special needs in inclusive classrooms, because of the **lack of knowledge** of identifying their special needs. In addition to lack of knowledge of assessing their needs, it was also stated that large numbers of students in the class limit the possibility of, not only assessing their learning needs and learning styles, but also appropriate teaching to meet the needs of students with visual impairments. Teacher A said that: *Even though the focus is on students with visual impairments, there are many students and probably all of them have different special needs and learning styles which need to be met. For example, the style used by one student is not similar to the style used by another student, because students are not the same. But the large number of these students in our classes is a problem. The number of students in one of my classes is 56. Other classes have more students.*

Teacher A elaborated further by saying that:  
*The large number of students makes me as a teacher to fail to meet the specific needs of every student in the class.*

### Conclusion

Based on the finding of the study the following conclusions were drawn. Even if there are different ways of assessment methods of students with visual impairment, the integrated primary school teachers used three main methods of assessment. These are contacting a student to know his/ her background, using previous records and observing student's performance in the class. Teachers have problems of knowledge and skill in the identification of the learning needs of students with visual impairments in the integrated classrooms. Teachers also faced a problem to fulfill the needs of students with visual impairment because of the presence of large number of students with in a classroom. Teachers used different teaching and learning methods to teach students with visual impairment. This includes, questions, group discussions, pair discussion, questioning and answering and lecturing methods depending on the nature of the topic. More over through the teaching experiences of schools, most teachers used different teaching materials for students with visual impairment. But the challenge here is the absence of teaching materials and lack of knowledge of teachers to adapt these teaching materials. Even though, some schools seems becoming important model in educating students with visual impairment in integrated classes, the following main challenges were observed. These are lack of knowledge in identifying the exceptional needs of students with visual impairment, large numbers of diversified students are placed with in a class and the learning needs and learning styles of students with visual impairments are not identified. This research didn't include several elements which might be included in the education of students with visual impairment. The study only focused on the educational practices, opportunities and challenges of students with visual impairment especially in the integrated primary schools of North and South Gondar Administrative Zones.

### Recommendations

Based on the findings and conclusion, the researchers suggested the following recommendations.

- The schools need to assess the unique needs of students with visual impairment before the start of the classes.
- Teachers should consider the difference between students with visual impairment and students without any sort of impairment.
- Special training for teachers should be arranged on how to adapt teaching materials, how to use teaching methodologies and how to identify the learning needs of students with visual impairments.
- The schools should put standard number of students with in a class to provide appropriate educational services for all students and to increase the participation of students with visual impairment in the classroom and outside to the classroom.
- The schools should provide sufficient amount of teaching resources which has a direct and indirect benefit to students with visual impairment.
- The schools should work on how to improve students with visual impairment participation and overall achievements.
- The schools need to put a plan to move from integrated education to inclusive education by welcoming all students with special needs and by creating a friendly social, economical and educational environment.
- Further research should be carried out on aspects of the education of students with visual impairment not covered on this research.

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