

ACCOMMODATING THE NEEDS OF SWVI IN ETHIOPIAN NATIONAL EXAMINATION

ADDIS ABABA UNIVERSITY

COLLEGE OF EDUCATION AND BEHAVIORAL STUDIES

DEPARTMENT OF SPECIAL NEEDS EDUCATION

**ACCOMMODATING THE NEEDS OF STUDENTS WITH VISUAL IMPAIRMENT IN
ETHIOPIAN NATIONAL EXAMINATIONS**

BY:

AMARE GEBRU TEFATSION

JUNE, 2015

ADDIS ABABA UNIVERSITY

ACCOMMODATING THE NEEDS OF SWVI IN ETHIOPIAN NATIONAL EXAMINATION

ADDIS ABABA UNIVERSITY

COLLEGE OF EDUCATION AND BEHAVIORAL STUDIES

DEPARTMENT OF SPECIAL NEEDS EDUCATION

**ACCOMMODATING THE NEEDS OF STUDENTS WITH VISUAL IMPAIREMENT IN
ETHIOPIAN NATIONAL EXAMINATIONS**

By:

AMARE GEBRU TESFATSION

**THIS THESIS IS SUBMITTED TO THE DEPARTMENT OF SPECIAL NEEDS
EDUCATION IN PARTIAL FULFILMENT OF THE REQUIREMENT FOR MA
DEGREE IN SPECIAL NEEDS EDUCATION**

JUNE, 2015

ADDIS ABABA UNIVERSITY

ACCOMMODATING THE NEEDS OF SWVI IN ETHIOPIAN NATIONAL EXAMINATION

ADDIS ABABA UNIVERSITY

COLLEGE OF EDUCATION AND BEHAVIORAL STUDIES

DEPARTMENT OF SPECIAL NEEDS EDUCATION

**ACCOMMODATING THE NEEDS OF STUDENTS WITH VISUAL IMPAIREMENT IN
ETHIOPIAN NATIONAL EXAMINATIONS**

Candidate: Amare Gebru

Advisor: Alemayehu T/mariam(Ph.D)

Approval of the Board of Examiners:

1. _____

Advisor

Signature

Date

2. _____

Internal Examiner

Signature

Date

3. _____

External Examiner

Signature

Date

ACCOMMODATING THE NEEDS OF SWVI IN ETHIOPIAN NATIONAL EXAMINATION

Acknowledgment

My greatest thanks would go first to the Almighty God for enabling me to reach at this stage. My deepest and lovely gratitude goes to my advisor Dr. Alemayehu T/mariam, from whom my long eagerly awaited dream is able to bear a fruit through his intellectual support and scholastic criticism. He has unfailingly guided me throughout my work, sacrificed his invaluable time in reading all the first and the final drafts of my paper. Thus deepest appreciations and heartfelt thanks go to him. I am also indebted to extend my gratitude and heartfelt thanks to the staff members of the Department of Special Needs Education in Addis Ababa University; particularly, for Laureate Prof. Tirussew Teferra, Dr. Alemayehu T/mariam, Dr. Sewalem Tsega, Dr. R.S. Kumar, and Dr. Jana Zehle for equipping me with the necessary knowledge and skill of the discipline.

I want to express my gratitude to my family for supporting my work in various ways. My appreciation also should go to Ato Fikadu Bogale, Ato Fikremariam Regassa, Ato Belay Endashaw, W/ro Wosene W/Michael, Ato Mulugeta Bejitowal for providing professional advice and encouragement. I must also express my gratitude to Ato Araya G/Egziabher, Dr. Zerihun Duressa, Ato Abebe Yehwalawork, Yetnebersh Nigussie and the staff members of ECDD, Ethiopian National Association of the blind, staff members of Examination Development and administration directorate of NEAEA and all my informants who had provided valuable information and encouragement.

ACCOMMODATING THE NEEDS OF SWVI IN ETHIOPIAN NATIONAL EXAMINATION

I also want to express my gratitude for Ato Arega Mamaru for allowing transport service during data collection for the study.

Contents

<i>Acknowledgment</i>	<i>i</i>
<i>Table of contents</i>	<i>v</i>
<i>List of tables and figures</i>	
<i>Abstract</i>	<i>vii</i>

CHAPTER 1

INTRODUCTION	1
1.1 Background of the study	1
1.2 Statement of the Problem	7
1.3 Objective of the study	9
1.3.1 General Objective	9
1.3.2 Specific Objective.....	10
1.4 Significance of the study	9
1.5. Limitation of the Study	10

CHAPTER 2

REVIEW OF THE RELATED LITERATURE	112
2.1 Visual Impairment	10
2.1.1 Definition.....	11
2.1.2 Educational implications of visual impairment.....	12
2.1.3 Prevalence of visual impairment.....	14
2.2. Assessment	17
2.2.1 Assessment Cycle.....	19
2.2.2 Professional Standards Regarding Assessments for Individuals with Disabilities.....	20
2.2.3 The Establishment of National Assessment System in Ethiopia.....	22
2.3. Accommodation of Students with Disabilities in Examinations	24
2.3.1 Accommodation in presentation.....	29
2.3.2 Accommodation in setting.....	30
2.3.3 Accommodation in response	31
2.3.4 Accommodation in timing.....	31
2.4 current and future assistive technology for writing	31

ACCOMMODATING THE NEEDS OF SWVI IN ETHIOPIAN NATIONAL EXAMINATION

2.5.	<i>Legal issues related to accommodation</i>	35
2.6.	<i>Accommodation and the issue of validity</i>	36
2.7.	<i>Examples of assistive technology to achieve equity</i>	37
2.8.	<i>Challenges of using assistive technologies</i>	40
2.9.	<i>Special examination arrangements for SWVI</i>	41
2.10.	<i>Promising practices of accommodation in Africa</i>	43
2.11.	<i>Theoretical frame work</i>	44
CHAPTER 3		
METHODOLOGY OF THE RESEARCH		
3.1	<i>Design of the study</i>	48
3.2	<i>Population of the study</i>	48
3.3	<i>Sampling Techniques</i>	48
3.4	<i>Data collection instruments and administration</i>	51
3.5	<i>Instruments of data analysis</i>	51
CHAPTER 4		
RESULT		
4.1	<i>Demographic Characteristics of the Respondents</i>	52
4.2.	<i>Examination development and administration for students with visual impairment</i>	53
4.2.1	<i>Exam development for students with visual impairment</i>	53
4.2.2	<i>Exam administration for students with visual impairment</i>	59
4.3.	<i>Lived experience of SWVI in Ethiopian national examinations</i>	72
4.4.	<i>Consequences from the experience of SWVI in Ethiopian national examinations</i>	81
CHAPTER 5		
DISCUSSION, CONCLUSIONS AND RECOMMENDATIONS		
5.1	<i>Introduction</i>	83
5.1.1	<i>Discussion</i>	83
CHAPTER 6		
CONCLUSION AND RECOMMENDATIONS		
6.1	<i>Conclusion</i>	94
5.3	<i>Recommendations</i>	97
<i>References</i>		102

ACCOMMODATING THE NEEDS OF SWVI IN ETHIOPIAN NATIONAL EXAMINATION

Appendices	102
1. <i>Demographic characteristics of respondents(table)</i> -----	<i>i</i>
2. <i>Responses of teachers and school administrators</i> -----	<i>ii</i>
3. <i>Questionnaire for blind students</i> -----	<i>iii</i>
4. <i>Questionnaire for blind students(translated in to Amharic)</i> -----	<i>iv</i>
5. <i>Questionnaire for students with low vision</i> -----	<i>v</i>
6. <i>Questionnaire for exam administration experts</i> -----	<i>vi</i>
7. <i>Interview guide and item for officials of NEAEA</i> -----	<i>vii</i>
8. <i>Interview guide and items for disability association leaders</i> -----	<i>viii</i>
9. <i>Interview items for members and leaders of disability associations/org. (translated in to Amharic)</i> -----	<i>ix</i>

ACCOMMODATING THE NEEDS OF SWVI IN ETHIOPIAN NATIONAL EXAMINATION

List of Figures and Tables

		Pages
Figure 1	Assessment cycle	20
Figure 2	Bronfenbrenner's ecological model	45
Table 1	Response of exam development experts	52
Table 2	Responses of exam administration	58
Table 3	Responses of blind students	64

ACCOMMODATING THE NEEDS OF SWVI IN ETHIOPIAN NATIONAL EXAMINATION

List of Acronyms

NEAEA	National Educational Assessment and Examinations Agency
EGSECE	Ethiopian General Secondary Education Certificate Examination
UEE	University Entrance Examination
CWVI	candidates with visual impairment
SWVI	Students With Visual Impairment
PWDs	People with disabilities
AAU	Addis Ababa University
ENAB	Ethiopian National Association for the Blind
NGO'S	Non-governmental organizations
VI	Visual Impairment
ECDD	Ethiopian Center of Disability for Development
HPDO	Help Peoples with Disability Organization
FENAPD	Federation Of Ethiopian National Associations for Peoples with Disabilities.
MOE	Ministry of Education
ACT	American College Testing
WBA	Wusate Berhan Abera
FGD	Focused Group Discussion
IDEA	Individuals with Disability Education Act
APA	American Psychological Association

ACCOMMODATING THE NEEDS OF SWVI IN ETHIOPIAN NATIONAL EXAMINATION

This thesis is dedicated to students with visual impairment who were penalized because of the absence of accommodation in Ethiopian National Examinations

ACCOMMODATING THE NEEDS OF SWVI IN ETHIOPIAN NATIONAL EXAMINATION

Abstract

The purpose of this research is to investigate to what extent Ethiopian National Examinations are accommodating candidates with visual impairment. In this study, blind and low sighted students who are admitted for National examinations, exam development experts, exam administration experts, school teachers and administrators, leaders of single and cross disability organizations(visually impaired persons), officials of National Educational Assessment and Examinations Agency(NEAEA) and the Federal Ministry of Education are participated. The method used in this study was mixed. Questionnaire, interview, focus group discussion, and documentary analysis were used for data collection. The findings of the study indicated that Ethiopian National Examinations were not accommodating candidates with visual impairment. In Ethiopian National Examinations, candidates with visual impairment are examined in a similar standard with the rest “sighted” candidates. According to the findings, attitudinal problems in enforcing the UN convention of Persons with Disabilities, absence of accessible learning materials and school facilities, rigid curriculum, lack of awareness, and absence of technology which is the best equalizer for persons with disabilities, absence in using appropriate accommodation for SWVI are among the major challenges affecting students directly and indirectly in National Examinations. Data from NEAEA has also indicated the achievement of blind students in Ethiopian National Examinations was far behind the “sighted” candidates. In general the research recommends for the overall improvement in assessment of candidates with visual impairment including the use of different accommodation alternatives and technologies during national examination development and administration, allocation of earmarked budget for accessible educational materials and assistive technologies as well as infrastructural arrangements.

Key words: students with visual impairment, national examinations, accommodations, disability, assessment etc

CHAPTER 1

INTRODUCTION

1.1 Background of the study

Examinations are typically used to measure what individual students have achieved after being instructed on a specified curriculum for a specified time. They usually involve formal processes and supervised conditions. Results are generally used to determine whether an individual student graduates from a particular level of the education system or is admitted to an institution at the next level. In order to serve such high-stakes purposes, examinations need to produce results that are valid, reliable, and fair (NEAEA,2006).

The Education and Training Policy (ETP) of the Federal Democratic Republic of Ethiopia has introduced an eight-year primary education and four-year secondary education. Primary education is also divided into first cycle (Grades 1-4) and second cycle (grades 5-8). Secondary education is likewise divided into two cycles: general secondary (grades 9-10) and second cycle secondary or preparatory program (grades 11 and 12). National examinations are increasingly becoming important across many countries as one means of measuring and monitoring the quality of education. They are typically used to measure the performance of individual students, schools and National Education Systems (ETP, 1994).

The parameters to measure the quality of a statewide test includes test validity, test equity, test fairness and test reliability (ETS,2004). According to UN declaration of human rights and subsequent conventions Ethiopia has ratified, every child has a fundamental right to education, and must be given the opportunity to achieve and maintain an acceptable level of learning. Every child has a unique characteristics, interests, abilities and learning needs.

ACCOMMODATING THE NEEDS OF SWVI IN ETHIOPIAN NATIONAL EXAMINATION

Education systems should be designed and educational programs implemented to take into account the wide diversity of these characteristics and needs.

Those with special educational needs must have access to regular schools which should accommodate them within a child-centered pedagogy capable of meeting these needs.

When we see the major issues in assessing students with disabilities, their inclusion raises four particularly important sets of issues:

- Issues of identification and classification;
- Questions about the appropriate use of accommodations;
- The problem of disabilities that are related to measured constructs; and
- Issues pertaining to test design(Koretz,2003).

In order to make the process of accommodating students with disabilities during assessment, the four issues outlined above are described as follows.

Identification and Classification

We use “identification” to refer to the determination that a student has a recognized disability. Although there are several criteria one could use in making this decision, identification usually refers to the decision that a student has a disability under the terms of either the Individuals with Disabilities Education Act (IDEA) or Section 504 of the Rehabilitation Act of 1973. The large majority of identified students is identified under IDEA. In contrast, we use “classification” to refer to the categorization of an identified student’s specific disability or disabilities (Koretz,2003).

ACCOMMODATING THE NEEDS OF SWVI IN ETHIOPIAN NATIONAL EXAMINATION

The Use of Accommodations

Tests are often administered to students with disabilities in nonstandard ways. Although the labeling of these departures from standardization has not been consistent, the current edition of the Standards for Educational and Psychological Testing (American Educational Research Association, American Psychological Association, & National Council on Measurement in Education, 1999) suggests using the term “accommodations” to refer to all of them:

Here accommodation is used as the general term for any action taken in response to a determination that an individual’s disability requires a departure from established testing protocol. Depending on circumstances, such accommodation may include modification of test administration processes or modification of test content (Koretz, 2003).

Disabilities Related to Measured Constructs

For example a student’s inability to read small symbols because of a visual impairment is irrelevant to her/his current understanding of algebra, even though it may have affected her/his success in studying algebra. Therefore, removing the effects of that inability by providing the test in large type or Braille will increase the validity of inferences about her mastery of algebra. Much of the policy debate about the assessment of individuals with disabilities has focused on cases in which the effects of disabilities are not relevant to the construct the test is intended to measure (Koretz, 2003).

Issues Pertaining to Test Design

Increased inclusion of students with disabilities in the assessments used for most students raises a variety of issues pertaining to the design, construction, and evaluation of tests. One issue is the possibility of item or test bias. This concern arises routinely in assessing students with

ACCOMMODATING THE NEEDS OF SWVI IN ETHIOPIAN NATIONAL EXAMINATION

backgrounds that may put them at a disadvantage in responding to a test. A second issue of design is the difficulty of the test(Koretz,2003).

According to Tirusew (1997), methods of assessment of learners with special needs should take in to account their specific disabilities. For instance, a blind learner may need to be tested in Braille or orally, a deaf learner may need to be tested using sign language, a learner with reading disability may need more time during examination.

Data has indicated the enrollment of blind students to be very low compared to the total number of blind persons at national level. Ethiopia constitutes world's highest rates of blindness and low vision about 30.4 % of her total population (Tirusew et al,1995). Their achievement at national examination was also significantly lower when comparison is made with the *sighted* ones.

According to Annual Education statistical abstract of 2012/13 (MOE,2012/13) the total number of visually impaired students enrolled in primary schools was 8698 (Male 5020,Female 3678).The number of blind students enrolled for grade 9 -10 was 585. Those enrolled for grade 11 and 12 were 287. Current report (November,2014), from NEAEA has indicated that the total number of blind candidates admitted to EGSECE in 2012,2013 and 2014 was 189,197 and 197 respectively. In the same years blind candidates admitted for UEE is reported to be 119,146, and 149 respectively.

According to the summary report of 2006 National Examinations (NEAEA,2007),the National mean of grade 12 blind candidates in 6 subjects(English, Scholastic Aptitude, Geography, History, Economics , and Civics) for years 20012-2014 was 283.49,283.49,and 267.45.The average point for years 2004-2006 to be 278.14 out of 700. Conversely for the same

ACCOMMODATING THE NEEDS OF SWVI IN ETHIOPIAN NATIONAL EXAMINATION

years and same subjects mentioned above, the National mean for “sighted” candidates was 297.47, 309.92, and 325.97 respectively with the average of 311.1 out of 700. The report has indicated that the National mean of grade 12 blind candidates of University Entrance Examination was lower by 32.97 National average points compared to “sighted” candidates.

Regarding Ethiopian General Secondary Education Certificate Examinations, Six subjects (Amharic, English, Biology, Geography, History and civics) were taken in to consideration to compare the two parties since blind candidates are not admitted for Mathematics, Physics and Chemistry. The National mean of blind candidates for years 2012-2014 was 34.50, 35.58, and 37 % respectively with the National mean of **35.69**. In contrast, for “sighted” candidates was 48.8, 48.12, and 41.03 % in National means was reported for each year with the average National Mean of 45.98 with the difference of 10.29 national mean in favor of the sighted students (NEAEA, 2014).

This research will be focusing on accommodating the Needs of Students with visual impairment in National Examinations developed and administered by NEAEA by giving particular attention to Sebeta Secondary and Preparatory School where significant number of students/candidates of National Examinations/ with visual impairment are attending their secondary and preparatory education. In Sebeta secondary and preparatory school, the total of 81 students (71 blind and 10 students with low vision) are attending their education. Recently, paper and pencil examination is handled for students with visual impairment (SWVI) under uniform standard (time, number of questions, presentation of examinations, instructions). My reason to choose the topic *Accommodating the needs of students with visual impairment in Ethiopian*

ACCOMMODATING THE NEEDS OF SWVI IN ETHIOPIAN NATIONAL EXAMINATION

National Examinations was due to my experience to blind students' complaints on National examinations in relation to examination questions, shortage of time and the service delivery of human readers.

The research has also revealed the grave problems affecting candidates with visual impairment in National Examinations particularly in EGSECE (Ethiopian General Secondary Education Certificate Examination). The long years testing experiences of National Educational Assessment and examinations Agency in Ethiopia was taken in to account and possible recommendations on the existing and current problems is forwarded at the end.

ACCOMMODATING THE NEEDS OF SWVI IN ETHIOPIAN NATIONAL EXAMINATION

1.2 Statement of the Problem

The job of the educator is to help students achieve their full potential. This educational mandate is no less present during classroom instruction than it is when educators administer tests and evaluate. He also adds that tests, when properly used, help students achieve their full potential (Clarke, 2012).

When designing and administering high-stakes tests, policy-makers and the educational community must guard against unfairly denying educational opportunities to any student in an effort to set higher standards for the general population. Because of this tension between civil rights concerns and the practice of setting high standards, disagreements over the participation in and use of high-stakes tests often implicate due process considerations that require judicial intervention (Clarke, 2012).

When we see the Ethiopian experience, high stake exams at the completion of the Ethiopian General Secondary Education Certificate Examination /EGSECE/ and the University Entrance Examinations /UEE/ are not subjected to judiciary attention for their validity and fairness like in the USA and other countries because of the absence of examination laws. National Examinations are developed and administered in traditional ways, not according to the accepted procedures of standardized achievement tests. There was/is no established system and responsible body to attend issues related to disability in national examinations. The special interest of students with disabilities in education system in general and the assessment of visually impaired candidates in particular were given very less attention together with rudimentary level of test development and administration practices. From my long years teaching experience and

ACCOMMODATING THE NEEDS OF SWVI IN ETHIOPIAN NATIONAL EXAMINATION

attachment of learners with visual impairment, my participation in examination development and administration under the operation of National Educational Assessment and Examinations Agency as well as from my experience and observation of reports, I learnt that students with visual impairment are in difficult conditions in relation to national examinations. SWVI were claiming for additional examination time, efficient human readers and better examination settings.

From my readings of research reports, no research has been conducted about SWVI in relation to Ethiopian national examinations. My intention was to fill the gap in research and to investigate to what extent national examinations are accommodating SWVI. The research also has observed the domestic testing practices and indicated the gap compared to achievement test procedures and the accommodation of SWVI in high stake examinations.

ACCOMMODATING THE NEEDS OF SWVI IN ETHIOPIAN NATIONAL EXAMINATION

1.3. Objective of the study

1.3.1 General Objective

To investigate how Ethiopian National Examinations were accommodated students /candidates with visual impairment.

1.3.2 Specific objectives

1. To investigate how National Educational Assessment and Examinations Agency develops and administers National Examinations for VI students.
2. To investigate the exam taking experiences of VI students in National Examinations
3. To investigate the challenges of VI students in National Examinations
4. To identify the measures taken to accommodate the needs of VI students in National examinations

1.4 Significance of the study

According to Marguerite Clarke, in frame work paper on student assessment system, high stakes examinations have been shown to have a negative impact on students from disadvantaged groups by disproportionately limiting their opportunities to proceed to the next level of the education system or to avail themselves of certain kinds of educational opportunities (Greaney and Kellaghan, 1995; Madaus and Clarke,2001). Because of these equity issues, the uses and outcomes of examinations must be carefully monitored at the system, group, and individual levels, and efforts should be made to reduce or mitigate any unintended negative consequences.

The findings and recommendations of this research will help in filling the gap of research reports about the extent to which national examinations are accommodating students with visual impairment. In addition, the research will inform the current status of national examinations in relation to disability and accommodations.

ACCOMMODATING THE NEEDS OF SWVI IN ETHIOPIAN NATIONAL EXAMINATION

1.5. Limitation of the Study

Scarcity of related local research reports regarding the accommodation of students with visual impairment in Ethiopian National examinations was the limitation of this research.

Operational Definitions

High stake tests	A test used to make important decisions about students.
Achievement Tests	In this study it is to mean classroom tests ,EGSECE and UEE.
National examinations	To indicate Ethiopian General Secondary Education Certificate Examination and University Entrance Examination
Blind	Those individuals cannot see or lost their vision
Low vision	Students who have difficulty for reading normal font texts in examinations.
Accommodation	Any change which is different from established standard to offset students' disability in exam development and administration

CHAPTER TWO

REVIEW OF THE RELATED LITERATURE

This chapter will be focusing on the causes and prevalence of visual impairment, establishment of the National Assessment System in Ethiopia, basic concepts of assessment, test accommodation of students with disabilities particularly in relation to visual impairment, adaptive technologies and best practices of accommodation experiences from around the globe.

2.1. Visual Impairment

2.1.1 Definition

Visual impairment is the functional limitation of the eye or eyes or the vision system. This leads to loss of visual acuity and inability of the person to see objects as clearly as a healthy person, loss of visual field meaning inability of an individual to see as wide an area as the average person without moving the eyes or turning the head, inability to look at light, double vision (Diplopia), visual distortion or distortion of images, visual perceptual difficulties or difficulties of perception, or any combination of the above features. Visual impairment is the functional limitation of the eye or eyes or the vision system. This leads to loss of visual acuity and inability of the person to see objects as clearly as a healthy person, loss of visual field meaning inability of an individual to see as wide an area as the average person without moving the eyes or turning the head. Photophobia – inability to look at light, double vision (Diplopia), visual distortion or distortion of images, visual perceptual difficulties or difficulties of perception, or any combination of the above features. <http://www.news-medical.net/health/What-is-visual-impairment.aspx>

ACCOMMODATING THE NEEDS OF SWVI IN ETHIOPIAN NATIONAL EXAMINATION

The World Health Organization defines low vision as visual acuity of less than 20/60 (6/18), but equal to or better than 20/200 (6/60), or visual field loss to less than 20 degrees, in the better eye with best possible correction. Blindness is defined as visual acuity of less than 20/400 (6/120), or a visual field loss to less than 10 degrees, in the better eye with best possible correction.

Some individuals with low vision can distinguish only light or darkness, or varying patterns and shapes. Many are able to read only with difficulty and may rely on large print materials and optical aids such as magnifying devices, tactile drawings, print enhancers and reading software. (Susan C. & Connie, et al., 2003). It is important to note that these children require the services of the Itinerant Teacher and require an individualized support services plan (ISSP). Children with low vision may require supports such as special seating, large print materials, taped materials, lighting considerations, provision of low vision aids, orientation and mobility (travel training) and other supports or accommodations/adaptations based on the nature and severity of the visual impairment (Student support services, 2001).

2.1.2 Educational implications of visual impairment

As babies, we use our vision to learn to identify people and items in our environment and to entice us to explore that which is beyond arms' reach. Through vision, children learn things about their world: how to ride bikes, bake cakes, make facial expressions to convey their moods and understand how a house is constructed. In everyday life, children use their vision to learn by watching and imitating what they see other people doing. This is known as incidental learning. In school, children often need to see experience charts, science demonstrations, computer screens and chalkboards in addition to being able to read their texts. Children who are unable to easily

ACCOMMODATING THE NEEDS OF SWVI IN ETHIOPIAN NATIONAL EXAMINATION

read, or see all of their class work, must be provided the material through tactile or alternate media if they are to learn to their highest potential. (Student support services, 2001). Although children with visual impairments are able to learn and do most of the things their sighted peers do, sometimes they may need direct teaching to learn many of the things their sighted peers learn incidentally. Visual impairment may affect development of concepts, mobility, orientation to an area, abstract learning, relationships with peers, self esteem, and access to many elements of educational, vocational and recreational living that the sighted world takes for granted. Children with visual impairments often have talents that they will be unable to develop without guidance to help them learn by using different sensory modes. A variety of teaching approaches will serve to enhance their learning and abilities in all areas of their lives. Early intervention with these children is critical (Carney, Engbretson, Scammell & Sheppard, 2003).

Students with visual impairments sometimes have fewer natural learning experiences because they are not able to observe objects and interactions. The areas of learning which are particularly affected are: concept development; interpersonal communication skills; life skills; orientation and mobility skills; and academic development. Development of concepts is the basis of learning. Spatial relationships, time, body awareness and self-awareness are just a few examples of fundamental concepts individuals need to make sense of their world. These concepts may need to be specifically taught to students with visual impairments. Although the main focus will be on academic development, providing a variety of opportunities for personal development can have a profound impact on a student who is visually impaired. Encouraging a positive self-image, appropriate dress, well-developed self-care skills. good interpersonal communication, appropriate behavior, increased independence and productive community living can all be

ACCOMMODATING THE NEEDS OF SWVI IN ETHIOPIAN NATIONAL EXAMINATION

tremendously beneficial in the healthy growth of students with visual impairments. As with all students, relationships are important for students with visual impairments and the classroom can be a wonderful place for development and maturity to flourish. The development of a student with a visual impairment is affected by the type and severity of the visual impairment; the onset of the visual impairment; the nature and degree of intervention; the use of residual vision; personality; the availability of equipment and resources; the presence of other disabilities; family adjustment and acceptance; and cultural attitudes to visual impairment (Carney, Engbretson).

Unlike students without disabilities, students with disabilities experience more stress due to their disabilities. That is because of just being with visual impairment, with physical disability or with hearing loss (Adri & Johanson, 2006). They also stressed, if more accommodations were made, they would have experienced lesser academic stress. Therefore, it would be helping if the concerned body makes some more arrangements and accommodations for students with visual impairment by taking some actions like unloading JAWS and making technologies accessible, allowing them to have extra time for exams, offering mobility and orientation training for new coming SWVIs at the beginning of each year.

2.1.3 Prevalence of visual impairment

According to UN (2002) Over 600 million people, or approximately 10 per cent of the world's population, have a disability of one form or another. Over two thirds of them live in developing countries. Only 2 percent of disabled children in the developing world receive any education or rehabilitation. The link between disability and poverty and social exclusion is direct and strong throughout the world. The estimated number of peoples of visually impaired people in the world

ACCOMMODATING THE NEEDS OF SWVI IN ETHIOPIAN NATIONAL EXAMINATION

is 285 million, 39 million blind and 246 million having low vision. 65% of visually impaired and 82% of blind are 50 years old (WHO, 2010).

In Ethiopia, the presence of diversified pre, peri-and postnatal disabling factors (like the health of prospective mothers, difficulties related to delivery, childhood infectious diseases, lack of proper child management, traditional harmful practices, under-nutrition, malnutrition, civil strife and periodic episodes and secondary preventive services in the country at large has brought a phenomenal increase in the incidence of disability. The problem still remains as a serious challenge to the country (Tirussew, 1993).

The number and status of persons with disabilities in Ethiopia is analyzed and reported by different international and local organizations. The survey on the status of People with Disabilities (PWD) and the influence of the African decade pronouncement in Ethiopia (March 2010), estimated that the number of persons with disabilities in Ethiopia is more than 7.3 million. It is believed that the situation is far worse than average for developing countries. Despite some encouraging effort in recent years, there is little noticeable adjustment in the school system that would help to accommodate the needs of disabled people. Lack of access to employment is the major challenge for disabled people. According to the official information from the 1994 census, 85% person PWD live in rural areas, where there could be no enabling environmental factors from them to contribute to the labor force. Majority of those few who migrate to urban areas make their living as beggars or on the merit of some charity organizations.

According to the observation of International Labor Organization (2013), despite the progress in recent years, there is still doubt on the functionality of the legal and policy

ACCOMMODATING THE NEEDS OF SWVI IN ETHIOPIAN NATIONAL EXAMINATION

environment in settling the stage for giving full recognition to Peoples with Disabilities (PWDs). ILO said “there is a sense that the issues of disability are sidelined from major international development goals such as Millennium Development Goals (MDGs). Given the proportion of disable people and the situation in which they live, it is difficult to imagine meeting the MDGs without improving the lives of PWD. The local policy environment in Ethiopia also reflects similar shortcoming when it comes to delivering the final products. The aspect of service delivery also by far lagging behind from what is ought to be. Ministry of Health (MOH) in many ways has not taken measures in formulating strategies that are tailored to disabled people. The few services that are currently being rendered are mostly sponsored by NGOs and visibly limited to urban areas and places where there is better accessibility (ILO, 2013). ”

Based on the World Report on Disability jointly issued by the World Bank and World Health Organization, there are an estimated 15 million children, adults and elderly persons with disabilities in Ethiopia, representing 17.6 per cent of the population. A vast majority of people with disabilities live in rural areas where access to basic services is limited. In Ethiopia, 95 per cent of all persons with disabilities are estimated to live in poverty. Many depend on family support and begging for their livelihoods (ILO, 2013).

In addition, the national survey conducted by Ministry of Health on blindness, low Vision and trachoma in 2006 has indicated that Ethiopia is believed to have one of the world’s highest rates of blindness and low vision. The major causes of low vision are cataract (42.3%), refractive error (33.4%), trachomatous corneal opacity (7.7%), other corneal opacity (5.9%) and macular degeneration (4.6%) (MOH, 2006). According to the 2005 survey of world Health organization(WHO), 9.2 % of the total population of Africa is estimated to have visual

ACCOMMODATING THE NEEDS OF SWVI IN ETHIOPIAN NATIONAL EXAMINATION

impairment. The major causes of blindness are cataract (49.9%), trachomatous corneal opacity (11.5%), refractive error (7.8%), other corneal opacity (7.8%), glaucoma (5.2%) and macular degeneration (4.8%). According to 2013/14 annual report of MOE only 3.3 % of students with disabilities are attending their primary, secondary and preparatory education in Ethiopia. According to UNICEF (2010), friendly schools are important for making advancements towards a holistic development of children. In this regard the basic reference points were: inclusiveness, safe, healthy and protective environment, academic effectiveness, gender responsiveness and key actor involvement.

Data pertaining to the incidence, prevalence and the situation of persons with disabilities are fragmentary, incomplete and sometimes misleading. According to the report of the Housing and population Census of the Ethiopian Government (CSA, 1998), the number of persons with disabilities constitutes 1.9% of the total population. On the other hand, the 1995 focused-baseline survey of the persons with disabilities in Ethiopia, the first of its type in the country, revealed that the prevalence of disability is about 2.95% (Tirussew, et al., 1995). The finding of this study further revealed that persons with visual impairment (weak sighted and blind) covered 30.4% from the total.

2.2. Assessment

An assessment system is a group of policies, structures, practices, and tools for generating and using information on student learning and achievement. Effective assessment systems are those that provide information of sufficient quality and quantity to meet stakeholder information and decision making needs in support of improved education quality and student learning outcomes (Ravela et al., 2009).

ACCOMMODATING THE NEEDS OF SWVI IN ETHIOPIAN NATIONAL EXAMINATION

Assessment, like any other construct in the educational literature has undergone tremendous changes in theory and practice. Shifts in educational paradigms and philosophies entailed changes in the theorization and research modalities. In this particular concept Erwin's (1991) definition is attractive in the sense that it approaches the concept as a process oriented one in which several aspects of assessment are chained together from beginning to an end. Erwin (1991) conceptualized assessment as a "Systematic basis for making inference about the learning and development of students... the process of defining, selecting, designing, collecting, analyzing, interpreting and using information to increase students' learning and development" (p.15). World Bank Educational Strategy (2011/12) document provides a comprehensive definition of assessment.

Assessment is the process of gathering and evaluating information on what students know, understand, and can do. Assessments enable policy makers and other education stakeholders to make informed decisions about what to do next to support the educational process. An assessment system is a group of policies, structures, practices, and tools for generating and using information on student learning and achievement. Assessment systems tend to be made up of three main activities that correspond to three information needs: classroom assessments for providing real-time information to support teaching and learning in individual classrooms; examinations for making high-stakes decisions about individual students at different stages of the education system (e.g., certification or selection of students); and large-scale assessments for monitoring and providing information on overall system performance levels and contributing factors. Several factors drive the value or quality of the information generated by assessment activities. These include factors related to the enabling environment (i.e., policies,

ACCOMMODATING THE NEEDS OF SWVI IN ETHIOPIAN NATIONAL EXAMINATION

leadership, organizations, and human and fiscal resources for assessment); system alignment (i.e., the extent to which assessments are aligned with system learning goals, standards, curricula, textbooks, and other pedagogical resources); and technical quality (i.e., the rigor of assessment instruments, processes, and procedures).

2.2.1. Assessment Cycle

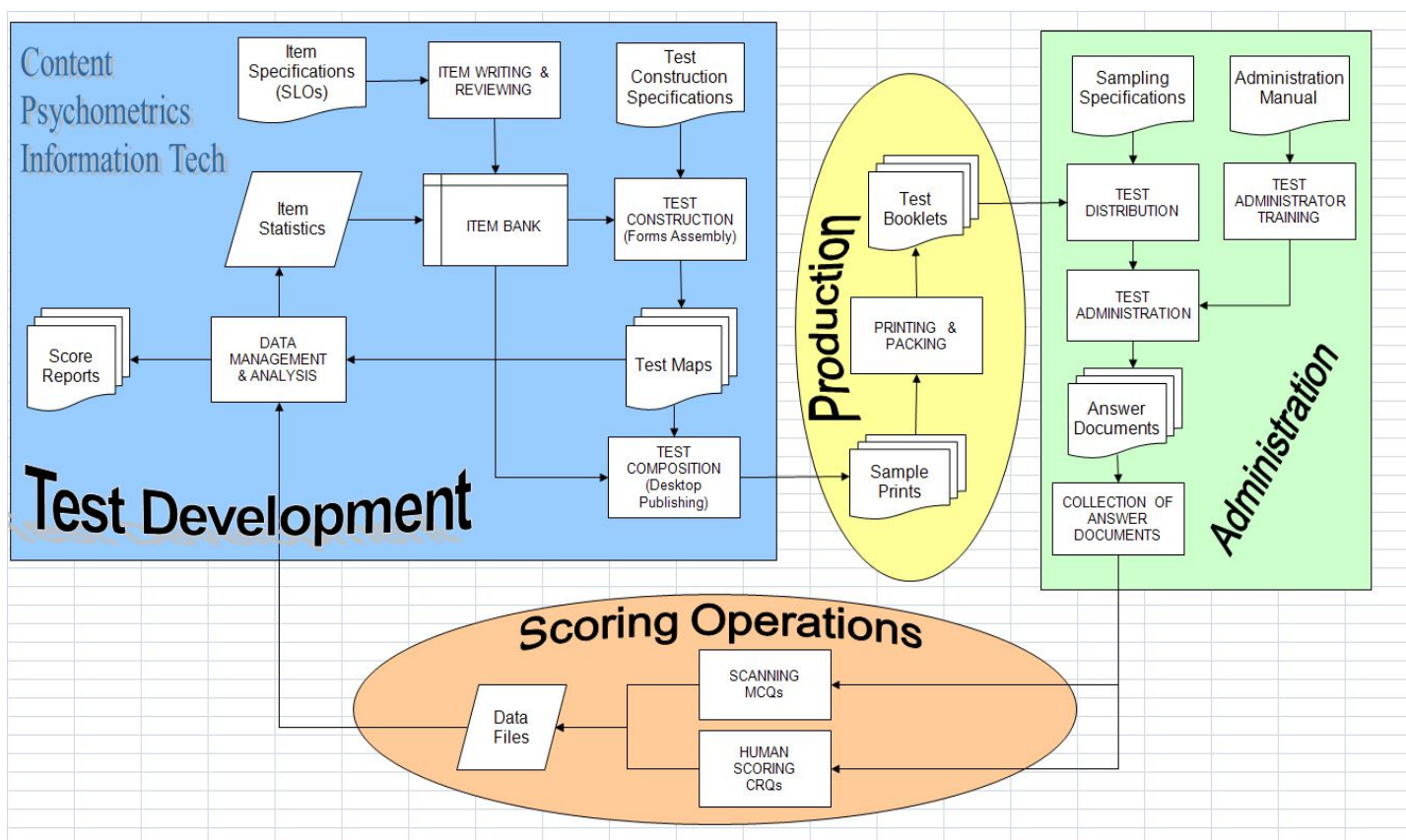


Fig.1 Adapted from American Research Institute(ARI),2014.

ACCOMMODATING THE NEEDS OF SWVI IN ETHIOPIAN NATIONAL EXAMINATION

2.2.2 professional Standards Regarding Assessments for Individuals with Disabilities

Since 1954, the American Educational Research Association, the American Psychological Association and the National Council on Measurement in Education have been responsible for publishing professional standards for educational and psychological testing. The APA Standards seek to "promote the sound and ethical use of tests and to provide a basis for evaluating the quality of testing practices. One of the essential tenets of the APA Standards with regard to high-stakes tests is that no single test should be used to make a -high-stakes decision about a student" (Morrison, 2000). A key question posited by the APA Standards, and underlying both due process and non-discrimination claims, as described above, is whether the test is valid for the purposes for which it is being used for *all* students taking the test.

According to the APA Standards, validity is the "most fundamental consideration in developing and evaluating tests." The process by which tests are designed and administered must ensure that the inferences that are meant to be drawn from the test are based on sound scientific principles." In the context of high-stakes tests, a test and the inferences drawn from it are considered invalid if students have not been taught the material on the test. Said another way, if the content of instruction and material on the test, the test is more likely to be considered valid, reliable and fair. This means that tests may be valid for one group of students—or one kind of inference—and invalid for another. Thus, Standard 13.1 states that "When educational testing programs are mandated by school, district, state, or other authorities, the ways in which test results are intended to be used should be clearly defined. Such a clear definition helps identify

ACCOMMODATING THE NEEDS OF SWVI IN ETHIOPIAN NATIONAL EXAMINATION

both intended and unintended consequences of high-stakes decisions based on test results (Morrison, 2000).

In addition to validity concerns, which apply in all testing situations, the APA Standards also recognize that high-stakes tests involve additional, unique considerations. " When all students of a particular age or in a given grade are required to participate in an assessment, Standard 11.23 recommends that "users [of the test] should identify individuals whose disabilities ... [indicate] the need for special accommodations in test administration and ensure that these accommodations are employed. "The Comment that accompanies this standard notes that appropriate accommodations depend on the nature of the test and the specific needs of the test taker. In addition, Standard 10.8 urges that those responsible for decisions about test use with potential test takers who may need modifications should "(a) possess the information necessary to make an appropriate selection of measures, (b) have current information regarding the availability of modified forms of the test in question, (c) inform individuals, when appropriate, about the existence of modified forms, and (d) make these forms available to test takers when appropriate and feasible" (Morrison, 2000).

Moreover, Standard 10.10 urges that "any test modifications adopted should be appropriate for the individual test taker" and that a "test professional needs to consider reasonably available information about each test taker's experiences, characteristics, and capabilities" that may affect test performance. Like the National Research Council(NRC), the authors of the APA Standards recognize that although "more valid results may be obtained through the use of a test specifically designed for use with individuals with disabilities" (Morrison, 2000).

ACCOMMODATING THE NEEDS OF SWVI IN ETHIOPIAN NATIONAL EXAMINATION

2.2.3 The Establishment of National Assessment System in Ethiopia

According to Ministry of Education (1999), the beginning of National examination in different names to offer various examinations dated to 1950. It includes, Elementary School Promotion Examination, The General Certificate Examination “Ordinary Level” (GCE 0 Level), of the University of London, and experimental phase of the Ethiopian School Leaving Certificate Examinations (ESLCE) were introduced for the first time in to the Ethiopian Education system in 1940s. The responsible body for these examinations was the then Ministry of Education and Fine Arts (ESLCE office hand book, 1985). Later in 1997 NOE (National Organization for Examinations under Ministry of Education (MOE) was established mainly to make the management centralized and to equip the organization with the necessary man power and technology (MOE,1999). According to Tilahun (1994), at the beginning National Examinations were of subjective type but later the format was changed in to Multiple choice because of the increasing number of candidates.

The agency was mandated to prepare and administer National Examinations, conduct National Learning Assessment and also work on student placement for tertiary education (MOE hand book, 1985). The organization was restructured as National Educational Assessment and Examinations Agency (NEAEA) according to the Council of Ministers regulation No 260/2012. National examinations are instruments where successful candidates are selected for advanced studies. They are important ways of quality control within education systems. The prospect of the examination affects student's motivation to achieve, influencing the quality of his/her work;

ACCOMMODATING THE NEEDS OF SWVI IN ETHIOPIAN NATIONAL EXAMINATION

the test paper itself legitimizes the school's course of study and shapes what teachers do in the classroom; and the results form part of parents' evaluation of their children's schooling (Eckstein, 1994 cited in Getnet, 2009).

World Bank (2005) also indicated that the grade 8 examinations were regionalized in 1999 but the results continue to be used for selection to grade 9. The examinations at grade 12 were replaced in 2003 by the College Entrance Examination as the mechanism for selection into post secondary education. The EGSECE was administered for the first time at a National level to regular students who completed grade 10 by the year 2001 on the basis of the new curriculum designed to General secondary education (grades 9 and 10). The General Secondary Education Certificate Examination included 9 exams on academic subjects (i.e., Amharic, English, Mathematics, Biology, Chemistry, Physics, Geography, History, and Civics), 4 exams on regional languages (i.e., Tigrigna, Afan Oromo, Harari and Anguak) and 2 others on Geez and French Language (MOE, 2002). Of course recently in 2013/14, 11 Ethiopian languages: Nuer, wolita, Kafinono, Sidamo, Hadiyisa, Silti, Somali, Gedeofa, Dawuro, Gamo and Gofa were included and administered in their respective regions (NEAEA, 2015).

The most popular broad classification of standardized tests is according to what is measured by tests as follows (Cong, 2014).

1. Aptitude tests (general, multiple and special)
2. Achievement tests (diagnostic, single subject matter, and survey batteries)
3. Interest, personality and attitude inventories

ACCOMMODATING THE NEEDS OF SWVI IN ETHIOPIAN NATIONAL EXAMINATION

Mehrens and Lehmann (1991, p. 290) define standardized tests as “tests that provide methods of obtaining samples of behavior under uniform procedures”. By a uniform procedure it means that (Mehrens & Lehmann, 1991; Payne, 1992):

- The same fixed set of question is administered,
- The same set of directions and time constraints are used
- The scoring procedures are carefully delineated and are uniform.

Governments, international organizations, and other stakeholders are increasingly recognizing the importance of assessment for monitoring and improving student learning and achievement levels and the concomitant need to develop strong systems for student assessment (IEG, 2006; Mc Kinsey & Company, 2007; UNESCO, 2007). This recognition is linked to growing evidence that many of the benefits of education cultural, economic, and social accrue to society only when learning occurs (OECD, 2010). For example, an increase of one standard deviation in scores on international assessments of reading and mathematics achievement levels has been linked to a 2 percent increase in annual growth rates of GDP per capita (Hanushek & Woessmann, 2007 & 2009). Test standardization is a long process and very difficult job. The preparation of standard achievement Test passes through several steps. According to Jawan (2012) the major steps in testing includes Test design and assembly, Item pretesting, Item analysis, Equating, Test quality and Standard setting.

2.3 Accommodation of Students with Disabilities in Examinations

A test accommodation is a change in the way a test is administered or in the way a student responds to test questions. Similar to instructional accommodations, test accommodations are

ACCOMMODATING THE NEEDS OF SWVI IN ETHIOPIAN NATIONAL EXAMINATION

intended to offset the effects of the disability and to provide students with the opportunity to demonstrate knowledge and skills on statewide assessments. According to Educational Testing Service (2004), Testing accommodations (and modifications) are commonly grouped into four categories: presentation, response, timing, and setting. Presentation accommodations provide test takers with an alternative presentation of testing materials, such as Braille, large print, and audiocassettes. Response accommodations give test takers alternative options for responding to the assessment, and include the use of a scribe or computer to record responses on multiple-choice and essay tests. Timing accommodations include extended time, the most widely requested accommodation, as well as frequent breaks and multiple testing sessions. Setting accommodations consist of a private room, screens to block out distractions, and other changes to the test taker's surroundings. Any one of these accommodations may be considered a test modification, depending on the construct the test is measuring (e.g., spelling, composition, grammar, creativity). Most states differentiate between accommodations and modifications, and provide a list of each in their guidelines for testing students with disabilities.

Accommodations include variations in test scheduling, setting, response, and presentation format without which the assessment may not accurately measure the test taker's knowledge or skills. The purpose of accommodation is to provide equity, not advantage. Any requested modification that would substantially alter essential elements of the examination will not be granted. As a general principle, it is desirable to retain as much of the original examination materials and testing environment and make the accommodations specific to the disability or disabilities in question. Currently, all testing organizations that administer admission tests provide accommodations. Most states were slow to include students with disabilities in state

ACCOMMODATING THE NEEDS OF SWVI IN ETHIOPIAN NATIONAL EXAMINATION

assessments. Before the reauthorization of the Individuals with Disabilities Education Act (IDEA) in 1997, states' policies on testing students with disabilities were less clearly defined than they are today, and many students with disabilities were excluded from state assessments.

The Individuals with Disabilities Education Act (IDEA, 1997) states that all students should participate in assessments (Section 300.138a). The law also mandates that decisions regarding testing accommodations be supported by the student's Individualized Education Plan (IEP) (Section 300.342b). Decisions regarding how a student will be assessed (e.g., alternate assessment, general assessment with accommodations) are typically made by the IEP team using guidelines provided by the state department of education and information about the student and the test (ETS, 2004).

The Americans with Disabilities Act ADA (1990) gives civil rights protections to individuals with disabilities that are like those provided to individuals on the basis of race, sex, national origin, and religion. It guarantees equal opportunity for individuals with disabilities in employment, public accommodations, transportation, State and local government services, and telecommunications. Public accommodations such as restaurants, hotels, theaters, doctors' offices, pharmacies, retail stores, museums, libraries, parks, private schools, and day care centers, may not discriminate on the basis of disability, effected on January 26, 1992. Private clubs and religious organizations are exempted.

According to the Massachusetts department of elementary and secondary education, for students with complex and significant disabilities, an alternate assessment may be administered, for example, in each of the following situations:

- ✓ A student with a severe emotional, behavioral, or other disability is unable to maintain sufficient concentration to participate in standard testing, even with test accommodations.

ACCOMMODATING THE NEEDS OF SWVI IN ETHIOPIAN NATIONAL EXAMINATION

- ✓ A student with a severe health-related disability, neurological disorder, or other complex disability cannot meet the demands of a prolonged test administration.
- ✓ A student with a significant motor, communication, or other disability requires more time than is reasonable or available for testing, even with the allowance of extended time (i.e., the student cannot complete one full test session in a school day).

Actual modifications to the tests may include, for example, testing students with forms normally used for an earlier grade (“out-of-level” or “out-of-grade” testing) or deleting some items from the test. The more common accommodations entail not alterations to the test itself, but rather changes in the presentation or administration of the test or in the student’s mode of response. Examples include providing students with additional time; administering the test in a separate location; breaking the testing time into shorter periods with more breaks; reading either directions or actual test items to students; providing the test in a different format, such as Braille or large type; and allowing students to dictate rather than write their responses (Daniel, 2003).

According to the US office for students with disabilities, Students with visual impairments are constantly challenged by classroom instructional strategies. Although they can easily hear lectures and discussions, it can be difficult for them to access class syllabi, textbooks, overhead projector transparencies, power point presentations, maps, written exams, demonstrations, DVDs, videos and films. A large part of traditional learning is visual; fortunately, many students with visual disabilities have developed strategies to learn. Students that are Blind or Low Vision vary considerably. For example, some have no vision; others are able to see large forms; and still others can see print if magnified. They use a variety of accommodations, equipment, and compensatory strategies based upon their widely varying

ACCOMMODATING THE NEEDS OF SWVI IN ETHIOPIAN NATIONAL EXAMINATION

needs. Many make use of taped textbooks, e-text, and computer screen reading software such as JAWS, extended time for exams or projects, a reader/scribe during exams, large print books, and Brailled materials. For many students, advancements in modern technology have made learning much more accessible. Students that are Blind or Low Vision can utilize enlarged print or screen reading software on the computer. Machines are available to enlarge the print of any printed material, to convert printed material to Braille, or convert printed material into a synthesized voice. Students may also use talking calculators or a tape recorder. You should not modify academic standards for visually impaired students. All students must meet the required level of understanding and performance competencies for the course, although there may need to be modifications in the evaluation or testing method (Daniel, 2003).

Phillips (1994) argues that measurement specialists should consider the impact of modifications on the constructs measured and the test's validity. Once modifications have changed test constructs for some individuals, the users of the test can no longer rely on its ability to determine qualifications for graduation, admission, employment, certification, or licensure. Phillips also argues that, even if an examinee with a disability is incapable of adapting to the standard testing administration, any change to testing conditions should be avoided if the change would (a) alter the skill being measured, (b) preclude the comparability of scores between examinees that received accommodations and those that did not, or (c) allow examinees without disabilities to benefit (if they were granted the same accommodation). This last criterion is debatable; in fact, several researchers have recently argued that accommodations should only be provided if they offer a "differential" boost to students with disabilities (Elliott & McKevitt, 2000; Fuchs & Fuchs, 1999, Pitoniak & Royer, 2001). Differential boost indicates that both

ACCOMMODATING THE NEEDS OF SWVI IN ETHIOPIAN NATIONAL EXAMINATION

students with disabilities and those without disabilities benefit from an accommodation, but those students with disabilities benefit more from the accommodation than students without disabilities (ETS, 2004).

2.3.1. Accommodation in Presentation of tests/examinations

Altering the presentation format of a writing test results in a wide variety of presentations that vary in terms of changes to the construct of the test. None of the states or testing organizations considered visual aids, large-print test format, or Braille test format as a testing modification.

One state listed orientation aides (e.g., providing masks or markers to block out unnecessary information and to help the test takers maintain their place, or highlighting key words in the directions) as modifications; the other states either made no mention of orientation aids or considered them to be accommodations. Eleven states identified allowing a test administrator to paraphrase test content as a modification, one state termed it an accommodation, and eight states did not mention paraphrasing. Paraphrasing of test directions was more likely to be an accommodation (eight states) than a modification (four states). For all ETS and College Board tests, paraphrasing of test content is not allowed, but reducing the number of test items per page and orientation aids are allowable accommodations. Currently, ETS does not have an official policy on paraphrasing test directions, but it is not allowed on College Board tests. American College Testing (ACT) makes no mention of paraphrasing test content or directions (ETS, 2004).

Audio (or signing) presentation includes reading the entire test aloud, signing the test (items and directions), providing an audiocassette of the test material, and allowing the use of screen reader software. The College Board, ACT, and ETS consider audio presentation of written

ACCOMMODATING THE NEEDS OF SWVI IN ETHIOPIAN NATIONAL EXAMINATION

material an allowable accommodation, but ETS and the College Board do not allow for the signing of test content because it may change the meaning of test questions. ETS is considering revising its policy on signing test content, for the writing prompts only, on essay tests. Signing of test directions is an allowable accommodation on College Board tests as well as other ETS-administered tests (ETS, 2004).

Other response accommodations and modifications that were identified in the state guidelines include pointing to answers (7 states defined as an accommodation) and marking answers in test books (17 states defined as an accommodation; 3 states did not specify). For all tests administered by the College Board, ACT, and ETS, pointing to answers and marking answers in the test booklet are allowable accommodations (ETS, 2004).

2.3.2. Accommodation in Setting of tests/examinations

Accommodations included special adaptive tools or furniture, special acoustics or lighting, individual testing, small-group testing, individual enclosure (e.g., study carrel), alternative test site (e.g., home or hospital), preferential seating (e.g., facing the examiner or the front of the room), and using a familiar test administrator. The College Board, ACT, and ETS consider most of these changes to setting to be testing accommodations; on ETS and College Board tests, however, examinees are not allowed to have a familiar test administrator (e.g., family, friend, personal tutor), and ACT does not specify (Cara Cahalan-Laitusis, 2004).

ACCOMMODATING THE NEEDS OF SWVI IN ETHIOPIAN NATIONAL EXAMINATION

Accommodation in Response of tests/examinations

In USA, all of the state guidelines on accommodations mentioned at least one oral response, such as dictating to a scribe, dictating into a tape recorder, or using voice recognition software. The most common oral response was dictating to a scribe. Research on test takers without disabilities indicates that highly experienced computer users tend to write better with a computer than by hand (Owston, Murphy, & Wideman, 1992; Russell & Haney, 1997; Russell & Plati, 2001).

Accommodation in Timing of tests/examinations

Studies indicate that students with disabilities, particularly learning disabilities, receive a differential performance boost from extended testing time when compared to students without disabilities (Alster, 1997; Camara, Copeland, & Rothschild, 1998; Fuchs, Fuchs, Eaton, Hamlett, & Karns, 2000). One study on the Standard Aptitude Test (Centra, 1986) found that students without disabilities received a greater boost during the extended time condition (compared to standard time) than students with learning disabilities (ETS, 2004).

2.4. Current and Future Assistive Technologies for Writing

Assistant technology is defined as technology permits students with visual impairments to access the general curriculum, to increase literacy options and to enhance communication (Virginia Department of Education, 2010). It adds that these devices include, but are not limited to, electronic Braille note takers, colored transparencies, tactile symbols, calendar systems, video magnifiers, screen reader software, screen enlarging software, Braille displays, auditory access to printed materials, and magnification devices (Hasselbring, 2000). Lists the devices to assist

ACCOMMODATING THE NEEDS OF SWVI IN ETHIOPIAN NATIONAL EXAMINATION

Students with Visual Impairments which are Closed-Circuit Television Magnification (CCTV), Computer Screen Magnification, Descriptive N Video Services (DVS), Screen Readers, Optical Character Recognition (OCR), Braille Note takers (Virginia Department of Education, 2010) reveals that students with visual impairments may need accommodations (extended time, specialized instruction, specialized materials, and environmental adaptations) to access the same assignments as their peers. Specialized equipment and materials may also be needed, such as a Braille writer, dark and/or raised line paper, a long cane, an abacus, specialized software for computers, low vision aids, and electronic equipment for auditory access to print material. Snetselaor, 2009 cited in Alemayehu (2011), indicated that reducing the number of items for SWVIs can also be used as accommodation. He said, students should not be penalized if they cannot finish the exam because of the tools he is using. If the examination is to be taped, the reader should state the total number of and type of questions, the value assigned to each item and time limitations. The examination should be read slowly and clearly. According to Allan 2006, cited in Ali Sani (2011), assistive technology for Students with vision impairment is more than educational tool; it is a fundamental work tool.

According to Yeseldyke and Algozine, cited in Archanto (2004), in addition to traditional content taught to their peers, the curriculum of visually impaired children, specifically of the blind, demands disability specific contents which include those related to concept development and communication such as Braille using, listening skills, use of slates stylus, use of abacus for math, hand writing, key boarding etc. The skills may provide access to traditional curriculum.

ICTs can help in making summative assessments easier to administer even when many countries are involved. In managing assessments, the characteristics of information generated

ACCOMMODATING THE NEEDS OF SWVI IN ETHIOPIAN NATIONAL EXAMINATION

by ICTs for decision making, includes the following (Menjo & Boit, 2010; Deepak, 2011);

i. Relevance: Any information that can help in decision making should be able to hold in content and context. Data captured should be relevant to the purposes for which it is to be used, for example in matters such as irregularities in exams, marking, grading, chief examiners reports, registration of candidates among others. This will require a periodic review of requirements to reflect on the changing needs of the community being served.

ii. Up to date: The examination bodies should hold only information that is up to date all the time. The data that should be present in their systems should reflect the daily happenings in matters pertaining to exams. The information kept should reflect the day to day happenings within the examination body. The information should help the public in making decisions real time without physically moving to the head quarters of the examination body which may be miles away.

iii. Timeliness: Data should be captured as quickly as possible after an event or activity and must be available for the intended use within a reasonable time period so that the necessary corrective or preventive action can be carried out. Data must be available instantly to support information needs and to influence service or management decisions of any examination board.

iv. Accuracy: Examination boards should forever have accurate information at real time. This facilitates better decision making by all the education system stakeholders who may include parents, candidates, ministries and even the examination body itself. Information should be free from errors as a small error in an examination can be disastrous to a country or a region at large. The users of information should be informed whenever assumptions or estimates have been used (J.Nderitu, 2014/15).

ACCOMMODATING THE NEEDS OF SWVI IN ETHIOPIAN NATIONAL EXAMINATION

Technological advances have opened new doors to higher education for students with disabilities. These technologies are referred to as assistive technologies and include both commonly used technologies (e.g., word processors, spell check software, and calculators) and technologies that are used exclusively or primarily by students with disabilities (e.g., voice recognition software, screen readers, word prediction, and Braille output technologies). As the numbers of students with disabilities using assistive technologies grow, the requests for assistive technology accommodations will increase (Laitusis, 2004).

On the other hand, recently technological development is playing crucial role in terms of accommodating students with special needs in high stake examinations. According to Steven baker, Georgia is a good example in utilization of Computer Assisted Tests (CAT). CAT is introduced for various reasons such as increasing security by producing student specific tests and to save on production and administration costs. In Georgia, some test items are released in internet after administration. Conversely, in some countries, according to the law, public exams must be published after administration in order to give students and other stake holders the opportunity to scrutinize and discuss the tests, and if needed file appeals against defective or otherwise improper items (Baker, 2014).

In Georgia, the IT department programmed a platform that manages the session of each student based on observed ability, a stopping rule, and storage of the student responses. The platform also controls the exposure time for each item. In absence of the response after two minutes, the item will disappear from the screen and it will be assumed that the student gave a wrong answer. If a student needs less than 2 minutes to answer an item unused time is saved in a time bank and may be used for later items that may need more than two minutes to be answered.

ACCOMMODATING THE NEEDS OF SWVI IN ETHIOPIAN NATIONAL EXAMINATION

The interfaces with radio buttons for choosing options and a ok button for confirming the choice are a self standing module but integrated in the platform (Baker, 2014).

2.5. Legal Issues Surrounding Accommodations

The assessment of students with disabilities has taken on considerable importance with the passage of the ADA which mandated inclusion of students with disabilities. The purpose of Section 504 and ADA as applicable to educational institutions and testing programs was to ensure equal and effective access to education for qualified students with disabilities (Heaney & Pullin, 1998). Similarly, the ADA has the expectations of students and their parents that educational institutions and testing programs will provide the necessary accommodations to assist students in obtaining access to educational programs and completing their degrees. Most admissions testing programs for postsecondary programs provide accommodations in their testing formats for students with disabilities in response to the enactments of Section 504 and ADA. Section 504 mandates that admissions tests administered to students with disabilities must be validated and that scores resulting from such instruments must reflect ability and aptitude rather than any disabilities extraneous to what is assessed (Geisinger, 1994).

The ADA (1990) requires that “when an examination is administered to an individual with a disability...the examination results accurately reflect the individual’s aptitude or achievement level...rather than reflecting the individual’s impaired...skills” Therefore, current social policy and the provisions of Section 504 and the ADA require that students with disabilities be afforded reasonable accommodations so that they might participate fairly in admissions testing (Geisinger, 1994; Geisinger & Carlson, 1995; Department of Justice [DOJ], 1996). However, the word, “reasonable,” is ambiguous and differs depending upon the

ACCOMMODATING THE NEEDS OF SWVI IN ETHIOPIAN NATIONAL EXAMINATION

circumstances of the assessment and the institution administering the assessment. If a requested accommodation appears to violate the integrity of an assessment and interferes with the test's intended purpose, then the accommodation is not legally required and may prove counterproductive (Zuriff, 1996-97). A prime example of the complexity of this situation is with timed tests. For some students with disabilities, tests with strict time limits may violate provisions of the ADA in that the timed tests may measure performance under conditions of the disability and consequently not allow students with disabilities to demonstrate their knowledge and skill (Zuriff, 2000).

The ADA does not require time accommodations if speed of work is part of what is being evaluated by the assessment (Zuriff, 2000). However, in cases where time is not a critical aspect of the assessment, the students may qualify for extended time on the test. "If, as a function of a disabling condition, an examinee's knowledge and skills cannot be fully demonstrated under standardized testing conditions, the obtained score will not accurately reflect the examinee's level of achievement but, rather, the extent of the disability" (Munger & Lloyd, 1991, p.53).

2.6. Accommodations and the issue of Test Validity

Providing appropriate accommodations and ascertaining the consequences of accommodations present significant issues concerning the validity of the inferences made from scores on modified tests (Heaney & Pullin, 1998). Significant questions exist about fairness in testing students with disabilities and the validity of the inferences made from scores on modified versions of admissions tests (Fuchs, Fuchs, Eaton, Hamlett, Binkley, et al., 2000; Heaney & Pullin, 1998; Thurlow & Ysseldyke, 1995). As tests are accommodated, especially if the

ACCOMMODATING THE NEEDS OF SWVI IN ETHIOPIAN NATIONAL EXAMINATION

accommodations are locally determined (as opposed to being determined by test publishers), error may be introduced into the testing process (Geisinger, 1994).

There is disagreement about which accommodations preserve the meaningfulness of scores for students with disabilities (Fuchs, Fuchs, Eaton, Hamlett, Binkley, et al., 2000). Many accommodations currently used to address the disadvantages inherent in the learning disabled population (e.g., extended time, decoding questions, encoding responses) may actually distort the meaning and interpretation of scores. Scores from tests with nonstandard administrations for students with learning disabilities are more comparable to those of students without learning disabilities but are of questionable validity for their intended purpose, such as assisting college admissions officers to select from among applicants (Zurcher & Bryant, 2001). The Willingham et al. (1988) study demonstrated lower predictive validity of test scores from nonstandard administrations. The authors recommended that (as with all students) multiple data points are needed when making important decisions (e.g., admissions or selection decisions)

2.7. Examples of Alternative Assessment Methods to Achieving Equity

For equity and fairness to be achieved in assessing the learners in the performance of certain desirable skills, alternative assessment methods may be used to determine the extent or degree of achievement of these skills. Such skills among others include concentration, writing, spelling/grammar, numbers and numerical concepts, reading, hearing and listening. If a learner experiences any form of difficulty with these skills, the assessor may adjust through the following:- For learners with Concentration difficulties, Splitting sessions into sub-sessions, giving additional time and using a variety of assessment methods e.g. recording devices for oral testing can be used as alternative assessment. For learners with Writing difficulties, oral

ACCOMMODATING THE NEEDS OF SWVI IN ETHIOPIAN NATIONAL EXAMINATION

assessment, digital recorder, sign language interpreter and giving additional time. For those learners with Spelling/Grammar difficulties, using a computer with spelling and grammar checkers, dictionaries or specialized literacy software and giving alternative assessment methods such as recorded interviews, slide presentation, photographic essays or models, for learners with difficulties in number and numerical concepts, using a calculator, assistive technology/equipment e.g. talking calculator and giving additional time are accommodation alternatives during assessment. For learners with reading difficulties, using magnifying devices e.g. lens to enlarge print or screen readers, Braille examination papers with tactile diagrams or maps, a reader, Oral assessment or recorded questions are used. For those with hearing and listening difficulties, face the learner and speak and speak clearly (if a learner lip-reads), use assistive technology/equipment, using Sign language interpreter and giving additional time/modify time frames can be used to achieve equity (Jumobi ,2014).

Assistive technology devices enable a learning disabled person to live independent lives and develop to their maximum capacities both academically and socially. Learning disabled children have disorders in one or more of the fundamental physiological processes involved in the understanding, speaking and writing of language, which include wrong pronunciation of words, spellings and reading. Assistive technology offers person with Learning Disabilities the tools necessary to be more successful in school, at works and at achieving air of freedom in daily living. Assistive technology is essentially Information, Communication and Technology devices to improve the functionality, capability and achievement of a learning disabled person (Jumobi, 2015).

ACCOMMODATING THE NEEDS OF SWVI IN ETHIOPIAN NATIONAL EXAMINATION

According to Curry (2003), assistive technology refers to “any item, piece of equipment, or product system whether acquired commercially off the shelf modified or customized, that is used to increase, maintain or improve the functional capabilities of a child with disability”.

ICT is a concept that has become globally appreciated. It is generally regarded as the fourth industrial revolution in the world. It has become the gateway to the modern information and communication super -highways, skills and orientation which distinguishes the world order.

Assistive Technology in education can be understood as the application of digital apparatus to all aspects of teaching, learning and assessment. It is the combination of technologies for collecting, storing, processing, communicating and delivery of information related to teaching and learning process. Obanya (2002) posits that the spread and efficiency of ICT is critical to the achievement of educational goals. Some of these assistive technology tools used for assessment of learning disabled persons include but not limited to the following:- The keyboard, Text Reading systems (Text to Voice), Speech Recognition System, Tape Records, Reading Pen, Talking Calculators, Electronic Math worksheet, Color Highlighters, Word Prediction, Spell checkers.

ACCOMMODATING THE NEEDS OF SWVI IN ETHIOPIAN NATIONAL EXAMINATION

2.8. Challenges of using Assistive Technology in Assessment of persons with learning disabilities

Despite the importance of assistive technology devices in assessment of persons with learning disabilities, its usage is bedeviled with some challenges which include but not limited to the following:-

- They are expensive and costly to procure and maintain.
- Most of the teachers are not proficient in the use of these devices, others have poor knowledge of the technology that is suitable and adaptable for the learning disabled persons.
- Epileptic power supply to operate such devices. Most schools that are located in rural areas may not have a ready source of power. In other places, which are connected to the national grid, electricity supply may be erratic.
- Assistive technology for assessment of persons with learning disabilities has not been fully integrated and appreciated in the education curriculum of most countries of the world.

According to Jumobi (2015),

- States and Local governments, Non-Governmental Organizations (NGOs) and public-spirited individuals should assist by purchasing these assistive technology devices and distribute same to schools for the benefit of learning disabled persons.
- Capacity-building workshops, seminar and conferences should be organized for teachers and persons with learning disabilities to expand their horizons and skills.

ACCOMMODATING THE NEEDS OF SWVI IN ETHIOPIAN NATIONAL EXAMINATION

- The use of generating sets, solar powered electricity and inverter should be purchased to power these devices.

To achieve fairness, justice and equity in assessment of persons with learning disability in this millennium, effective and maximum mobilization and utilization of assistive technology should be emphasized. The use of these assistive technologies will revolutionized the process of assessment of persons with learning disability.

2.9 Special Examination Arrangements for SWVI

The use of amanuensis or readers

An amanuensis may either legibly write or word-process at a reasonable speed a candidate's answers to questions. They should ideally know enough about the subject, terminology and vocabulary but shall, if possible, not be an expert. An amanuensis should not normally be one of the student's tutors. If a student has a note taker in class, this person may be considered suitable to act as the amanuensis, provided they are sufficiently independent of the student.

The use of an amanuensis should neither give the student an unfair advantage nor should it disadvantage the student. In certain circumstances additional time may be permitted for the use of an amanuensis. During the examination the student is permitted to use answer books to do essay plans, draw diagrams/charts etc, which are given to the examiners with the complete script.

A student should, wherever possible, have adequate practice in the use of an amanuensis.

ACCOMMODATING THE NEEDS OF SWVI IN ETHIOPIAN NATIONAL EXAMINATION

During the examination an amanuensis/readers:

- must not give factual help to the student or offer any suggestions or advise the student regarding what questions to answer, how to manage the exam time, i.e. suggest when to move on to the next question or the order in which the questions are answered.
- must write or word-process answers exactly as they are dictated.
- may read back what has been recorded to the students and make any corrections as directed by the student.
- must accompany the student if s/he needs to temporarily leave the exam room.
- will not normally be expected to write or type for the full duration of the examination, since the student will be expected to carry out some form of planning and rough work.

<http://www.bbk.ac.uk/mybirkbeck/services/rules/special-exams.pdf>

Students requiring sheltered accommodation are provided special rooms. Those students with enlarged copies of the question paper or those in wheel chairs who normally require additional desk space, students with back problems requiring special seating, students with dyslexia who are distracted by noise or other people, and students who are allocated extra time beyond the time of the main examination hall.

The room may accommodate a small number of students with special needs. Whilst completely separate rooms may be desirable this is rarely feasible because of room shortages and invigilation costs. Students are also advised to bring earplugs.

ACCOMMODATING THE NEEDS OF SWVI IN ETHIOPIAN NATIONAL EXAMINATION

Blind or visually impaired students

Appropriate arrangements would for SWVI depend on the level of the student's eyesight, their eye condition and their technical skills as follows: partially sighted student may be able to use large print examination papers and write in conventional examination booklets. For students with a greater degree of visual impairment closed circuit television may be appropriate. Braille users may prefer examination questions and their answers to be in Braille. Alternatively they may use special computers or audio cassette. Computers with character enhancing or screen reading software as well as amanuensis and/or reader could be used. In addition extended time ranging from 15 to 30 minutes in the hour (in exceptional circumstances more) depending on the level of visual impairment and arrangements in place, sheltered accommodation and large desks are used.

For students with hidden disabilities (i.e. epilepsy, diabetes, respiratory problems or heart conditions) appropriate arrangements may include: supervised breaks sheltered accommodation, extra time, support worker. <http://www.bbk.ac.uk/mybirkbeck/services/rules/special-exams.pdf>

2.10. Promising Practices in Africa

The efforts made by the Examinations Council of Zambia in making assessment fair to all candidates cannot be over emphasized. The council, for instance, provides accommodation and assessment arrangements to allow candidates with Special Educational Needs access the examinations without changing the demands of any given examinations; allows the use of readers and scribes/writers for SEN candidates; allows 25% to 100% extra time to learners with SEN during examinations; provides large print examinations question papers to candidates with

ACCOMMODATING THE NEEDS OF SWVI IN ETHIOPIAN NATIONAL EXAMINATION

low vision; provides modified Braille examination question papers to blind candidates; and allows teachers with competencies in sign language skill to invigilate examinations for Hearing Impairment(HI), as means of laying the playing field in the provision of examinations to candidates. Other than these measures, the council has been consulting with the Ministry of education, Science, Vocational Training, and Early Education (MSVTEE) on how best Special Educational Need learners can be taught and assessed (AEAA, 2014).

As Adoyo (2008), explains, every child has unique characteristics, abilities, and learning needs. Therefore, education systems should be designed and educational assessments implemented, to take into consideration the wide diversity of these characteristics and needs.

2.11. Theoretical Frame Work of the Study

This study is deep rooted with the Ecological System/development in context or human ecology theory. The theory shares the view that all facets of the individual and the environment are important and that development is a complex process in which outcomes are determined through the active interaction of these facets. It is the grasp of this theoretical framework, which leads to the understanding that learning and behavior deficits are not the result of the individual factors or the environmental factors but the interplay to the two factors. The transaction between the individual factors (genotype) and the environmental factors (environ type) acting upon each other in a dynamic and reciprocating manner determine the behavior possessed by the individual (phenotype) (Sameroff & Fiese, 2000). The human development and behavior can't be understood independently of the social, cultural, environmental and historical context in which it occurs (Bronfenbrenner 1997 cited in Seligman & Darling, 1989).

ACCOMMODATING THE NEEDS OF SWVI IN ETHIOPIAN NATIONAL EXAMINATION

The five systems in ecological systems theory

Microsystem : is the complex of relations between the developing person and the environment in the person's immediate setting, i.e., the person's home, school, day care, etc

The mesosystem : is a set of interrelations between two or more settings or micro system in which persons in question are active members. It can include home, extended family, neighborhood, Church, Mosque, School, day care centers etc

Exosystem: the exosystem is an extension of the mesosystem embracing other specific social structures, both formal and informal, that do not contain the developing person but impinge upon or encompass the immediate settings in which that person is found, and there by influence, delimit, or even determine which goes on there (Hornby, 1995). These structures include such social institutions as mass media, welfare services, employment, etc.

Macro system: The macro system is the overarching institutional patterns of the culture or subculture, including the economic, social, educational, legal, and political systems, of which micro, meso, and exo systems are the concrete manifestations (cited in Seligman and Darling, 1989).

The following diagram clearly depicts Bronfenbrenner's ecological systems theory

ACCOMMODATING THE NEEDS OF SWVI IN ETHIOPIAN NATIONAL EXAMINATION

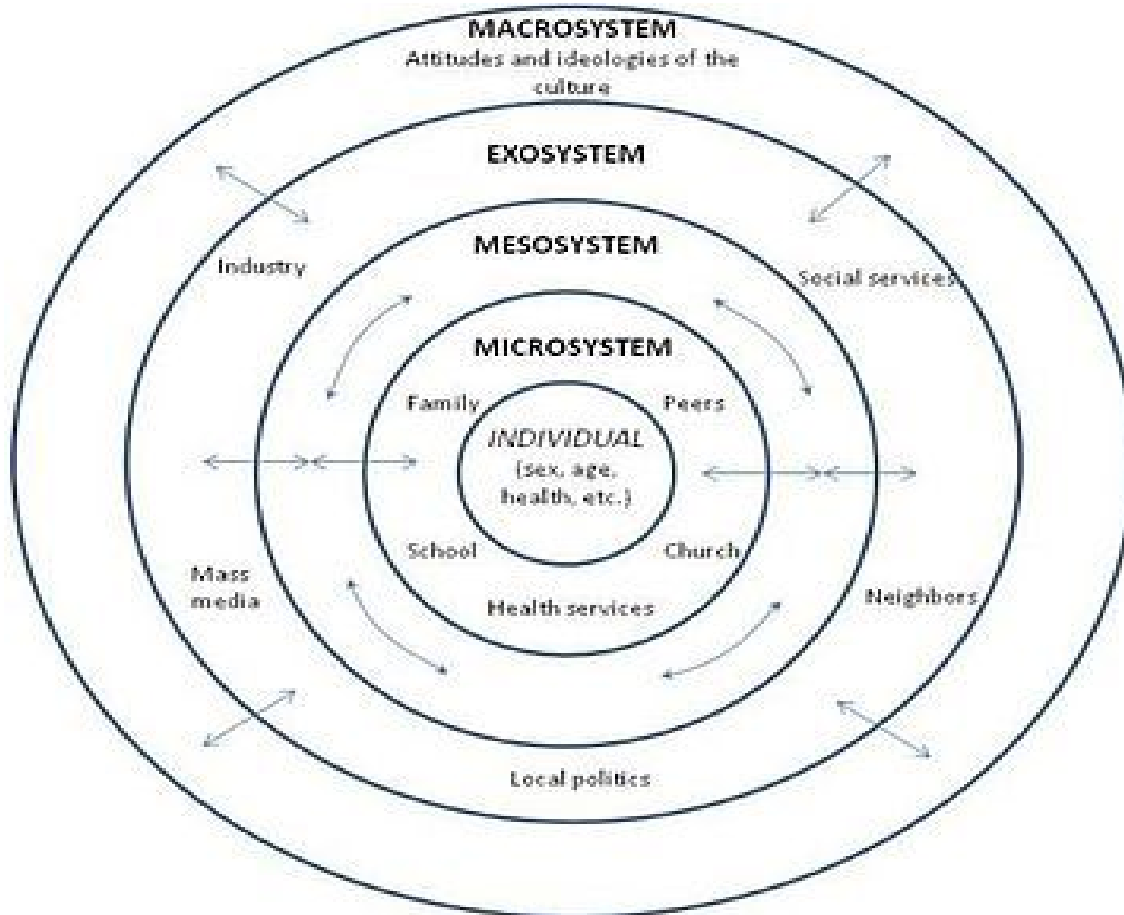


Fig.3 Bronfenbrenner's ecological model

Similarly, students' performance or potential is the result of the interplay between their genotype and environmental factors. Improving the test quality (e.g. validity, reliability, fairness, use of accommodations) and its environment may help students with visual impairment to participate and fully demonstrate their potential in national examinations. Accommodation should be the concern in all levels of the environment. Parents, schools, and the community

ACCOMMODATING THE NEEDS OF SWVI IN ETHIOPIAN NATIONAL EXAMINATION

should give due attention and provide overall support and accommodation to SWVI and PWD at large so that they could exercise full and independent life. Policy makers and administrators should also consider disability issues in every walk of life.

CHAPTER THREE

METHODOLOGY OF THE RESEARCH

3.1 Design of the study

The design chosen was mixed research (descriptive type) because of the presence of both qualitative and quantitative data to be collected and analyzed. In addition, it is also to take the advantage that if it is done well, mixed method can deliver double impact deep questions, and elegant methodological solutions.

3.2 Population of the study

The target population for this study were all Students with visual impairment in Sebeta Secondary and Preparatory school who have already taken Ethiopian General Secondary Education Certificate Examinations(EGSECE). Sources of information for this research were teachers, school administrators, experts of NEAEA working in various positions/test developers and test administrators/, data from analysis of documents, directors of NEAEA and MOE, leaders and members of disability associations and organizations. All Students with visual impairment in the school were included taking the advantage of the small number of target population. My reason to include various respondents in the research was to get data from different stakeholders of national examinations and it also helped to triangulate the data so that validity and reliability can be maintained.

3.3 Sampling Technique

The sampling techniques the researcher employed were Census method of data collection (a complete enumeration of a group of people), convenience and purposive sampling techniques.

ACCOMMODATING THE NEEDS OF SWVI IN ETHIOPIAN NATIONAL EXAMINATION

Purposive sampling method was opted because of my knowledge about the individuals for having rich experience which was helpful to my study. Conducting a census often results in enough respondents to have a high degree of statistical confidence. Everyone is invited and it's important to give everyone the opportunity to provide data. I opted to use this technique because of the manageability of the number of target population. Therefore, 71 blind students and 10 students with low vision in grade 11 and 12 were totally taken, teachers and school administrators (91 and 10 respectively) of the school were taken by census method. Purposive sampling technique, the procedure in which a researcher selects the sample based on some appropriate characteristic was also chosen to take a sample of participants. In this regard, 25 experts of exam administration and exam development (17 and 8 respectively), 2 representatives from the National Association for the Blind(ENAB),1 representative from the National Federation of Peoples with Disabilities(FENAPD),1 representative from Help Peoples with Disabilities Organization(HPDO),1 representative from Yemisirach Center for Peoples with Disabilities,7 members of group discussion (all are blind) from Ethiopian Center of Disability for Development(ECDD) , the Director and vice Director of NEAEA, the Director of special needs support and inclusive education directorate of MOE were taken to participate in the research. In addition, 2 blind students from AAU and 2 from TVET institutions were taken as participants of the study using convenience method of data collection. In this research, 214 participants were involved. The reason for the participation of disability associations and organizations leaders was because of their ample experience related to national examinations. Most of them are working on the issues of inclusion and also forwarded important ideas and lived experiences to the research. Similarly, key officials in the MOE were included to

ACCOMMODATING THE NEEDS OF SWVI IN ETHIOPIAN NATIONAL EXAMINATION

understand what is going on at micro level and to identify the gaps in actualization of international instruments already Ethiopia has ratified in relation to accommodation of PWDs in general and SWVI in particular.

3.4 Data collection instruments and administration

Four questionnaires are devised to collect both quantitative and qualitative data from students, teachers and School administrators, test development experts and Test administration experts. Group discussion was also conducted to collect qualitative data from respondents. Questionnaires were structured and unstructured, and interviews were also restricted (structured type) and open (unstructured types) in combination to get the advantages of their strengths. Members of FGD were educated and assumed different positions in the organization, from expert to directorship. The staff was interested in the research and there was warm discussion for two hours in their office. At the end of the focus group discussion, promise was also obtained from Ethiopian Center of Disability for Development to organize a forum for the dissemination of research findings in the presence of stake holders of national educational assessment and examinations agency and Sebeta secondary school when the research is completed. Interview was made for key officials of NEAEA and MOE, leaders and members of disability associations. Documentary analysis was also carried out to collect data from NEAEA archives. Instruments were also piloted before the actual operation. Qualitative data from respondents was recorded and photographs were taken based on the consent of the respondents.

3.5 Instruments of Data Analysis

The quantitative data obtained from different sources was organized and analyzed by using descriptive statistics (percentile and mean). SPSS (Statistical Package for Social Science) was used for data analysis. Qualitative data was analyzed by using thematic technique.

CHAPTER 4 : RESULT

In this chapter, quantitative and qualitative data obtained from questionnaires, interviews, group discussion and documentary analysis are presented, analyzed and interpreted. The participants includes, blind students, students with low vision, test development experts of NEAEA, Exam administration experts of NEAEA, teachers and school administrators, leaders of single and cross disability associations and organizations (ENAB, FENAPD, HPDO, ECDD and Yemisrach Center for Persons with disabilities), and officials of NEAEA and MOE. The data from respondents is also presented in tabular form. Results of quantitative data are triangulated with the qualitative data from participants. Summarized reports from interviews and group discussion is also presented. In this chapter data is presented and results are derived from it in three general categories thematically as follows.

1. Examination development and administration for SWVI.
2. Lived experience of former SWVI in national examinations.
3. Consequences from the experiences of students with visual impairment in national examinations.

The demographic characteristics of participant students was young and 82.2% (see annex 2) of the respondents were concentrated in the age group from 16-20. The number of grade 11 students was slightly greater than that of grade 12. The number of male students exceeds that of female (male 84% and female 16%). The number of grade eleven students exceeds that of grade 12 (55% and 45% respectively). The qualification of the entire number (76%) of examination development and administration experts have BA/BED degree. 92% of the teachers and school

ACCOMMODATING THE NEEDS OF SWVI IN ETHIOPIAN NATIONAL EXAMINATION

administrators have BA/BED degree. 8% of the teachers have MSC degree in various fields of study. Qualification of the entire participants from disability organizations, officials of MOE, and NEAEA was BA/BED degree and above in different fields of study. The mean age of teachers and school administrators, participants from disability organizations, and officials of MOE and NEAEA was 39,49 and 54 respectively.

4.2. Examination development and administration for SWVI

In this part quantitative and qualitative data obtained in relation to national examination development and administration for students with visual impairment will be presented and analyzed. In the first place data in relation to exam development will be treated.

4.2.1. Examination development for SWVI

Table 1 - Responses of exam development experts

No.	Items in questionnaire	Scales											
		Very High	%	High	%	Moderate	%	poor	%	none	%	Total	
1	Your consideration for visually impaired candidates (the Blind, and candidates with Low vision) in item development	4	-	3	14.3	3	42.9	1	-	0	3	42.9	8
2	The level of your attempt to get professional support from Special needs Education professionals in terms of exam development	-	-	-	-	-	-	2	14.3	6	85.7	8	
3	The level of Ethiopian National examinations in accommodating candidates with visual impairment.	-	-	-	-	-	-	2	14.3	6	74.4	8	

ACCOMMODATING THE NEEDS OF SWVI IN ETHIOPIAN NATIONAL EXAMINATION

As it is shown in table 1 above, the first question to examination development experts of NEAEA was about their consideration for visually impaired candidates (the Blind, and candidates with Low vision) in item development. In this regard, 42.9% of the participants replied they are not considering visually impaired candidates in item development. Similar percent(42.9 %) of the participants also replied they are moderate in considering visual impairment during item development.14.3% of the participants replied they are highly considering visual impairment in item development. According to 85.9% of the respondents , national exam development was not considering SWVI. Therefore, NEAEA should provide trainings regarding the mode of test presentation as well as the basics of item development for candidate /students with VI. My documentary analysis also confirmed the real existence of the problem. For example in 2006/14 , nine questions from Economics EUEE are found to have rigorous calculations. The questions were beyond the preparation of blind candidates and finally cancelled as a result of blind students' complaint. Teachers and school administrators also similarly have qualified the real existence of the problem. Of course, the exemption of blind students from natural science and mathematics should not be a solution. According to the data I obtained from the group discussion, our educational system has failed to meet the absolute right of blind students to attend the fields of studies other than social sciences. Therefore, policy makers and MOE should think the inclusion of natural sciences and mathematics to the SWVI with the appropriate curriculum development, material support and training for teachers.

Exam development experts said current global practice indicates examination development is a team work of specialists in different areas such as content area specialists for item writing and reviewing, Psychometricians, statisticians, language editors, Special Needs

ACCOMMODATING THE NEEDS OF SWVI IN ETHIOPIAN NATIONAL EXAMINATION

professionals and others. They added, test item also passes through rigorous procedures and its major components include preparation of specification, Item writing, item reviewing, item piloting, item analysis and Item banking. Experts also has indicated the psychometric properties of items in Ethiopian National Examinations is not known so far because of absence item piloting and analysis. According to exam development experts, the awareness and commitment of decision makers was also limited. According to the words of a senior expert in NEAEA, "the process of exam development in NEAEA can have a double fold negative effect on the performance and achievement of Students with visual impairment."

The second question to examination development experts was about the level of their attempt to get professional support from special needs education professionals in terms of exam development. In this regard, 85.7% of the participants replied none of them has attempted to get professional support from special needs professional in terms of examination development. 14.3% of the participants replied their attempt to get professional support from special needs professionals to be poor. Therefore, the data has indicated that the entire number of examination development experts were not attempting to get professional support from special needs professionals. According to the participants, there was no professionals in Special Needs Education which was officially employed in NEAEA. This indicates the high stake statewide examination is developed by significant number of experts without the knowledge and consideration of students with visual impairment. I also believe that it may have significant repercussion on students' achievement. The 3 year (2004-6) Comparison of examination result of blind and "sighted" students in University Entrance Examination has also shown the difference of 32 in national mean. Therefore, NEAEA should improve its test development in connection

ACCOMMODATING THE NEEDS OF SWVI IN ETHIOPIAN NATIONAL EXAMINATION

with candidates with VI .Of course for all candidates with disabilities. Appropriate trainings and professional support from special needs professionals should be in place.

The third question to examination development experts was about the level of Ethiopian national examinations in accommodating candidates with visual impairment. In this regard, 74.4% of the participants replied Ethiopian National Examinations are not accommodating students with VI. 14.3% of the participants agreed Ethiopian National Examinations was poor in accommodating candidates with visual impairment. The rest 14.4% agreed for moderate level.

The data has indicated that almost 3/4th (74.4%) of the participants have agreed Ethiopian National Examinations are not accommodating candidates with visual impairment. Qualitative data from exam administration experts, members of disability associations and teachers, and SWVI has also indicated the absence of other accommodations except the mere recruitment of human readers which is widely complained among blind candidates for its poor application. According to my observation, exam development experts in two subjects(Geography and Biology) are trying to consider blind students in item development by exempting them from map reading questions and diagrams as stimulus for their items. Of course, there is still observable problems in item development of these subjects. For example the 2014 EGSECE biology examination contained items requiring visual sensation for blind candidates, Tables and numbers that represent a stimulus for blind students may confuse them to answer those items without additional time. It also seems difficult for *human readers* to present those items since paraphrasing is not allowed (see booklet code 033 question numbers 30,39,49,52,70 and 87)

ACCOMMODATING THE NEEDS OF SWVI IN ETHIOPIAN NATIONAL EXAMINATION

According to the current practice explained by examination development experts , as to the exam administration of NEAEA there was no recruitment criteria for readers and no orientation or training has been given to *human readers* who are assigned for reading the national examination for blind students so far. According to the experts of exam administration, the issue of candidates with visual impairment was not included during the yearly consultative meetings organized usually in every December where discussions on previous year reports usually takes place before the actual operation of forthcoming National Examinations. According to the data from my documentary analysis, the issue of accommodating visually impaired candidates is not included in examination manual of the agency. This implies the matter of accommodating candidates with visual impairment/disabilities seems to be overlooked.

Therefore, NEAEA should prioritize the case in the times and years to come. In the first place, comprehensive examination development and administration manual should be produced. Training NEAEA staff and participants of National examination should come before its actualization.

The forth question to examination development experts was to mention the barriers in accommodating candidate with visual impairment in Ethiopian National examinations and to suggest possible solutions. One participant among the senior expert in NEAEA said “ lack of giving due attention to or ignoring the issue of disability which is observable during several conferences, workshops, trainings and meetings and even on annual reports related to education among higher officials in the ministry at large and, authorities and experts at the agency in particular is disappointing and it seems the issue of disability to be “a tiger on the paper .” Issues related to disability are not considered and even included in short and perspective plans of

ACCOMMODATING THE NEEDS OF SWVI IN ETHIOPIAN NATIONAL EXAMINATION

NEAEA . He also stressed, some of them who know the presence of the problem turn a blind eye to the solution. He added, multitude of civic organizations and associations are not putting efforts to safe guard the interest of their members in relation to assessment. Other examination development experts also indicated the absence of data in relation to the candidates with disabilities with the exception of blind students has made the issue of accommodation to be difficult in NEAEA. Lack of awareness on issues related to disability and forms of accommodation among the officials and experts, absence of attention and knowledge among practitioners, item writers, examination developers, economic status of the country and its inadequate infrastructure, lower emphasis to examination development and administration by the agency, absence of special needs professionals in NEAEA, absence of assessment and measurement professionals in decision making positions of NEAEA, lack of appropriate man power for test development and administration are listed and explained as barriers in accommodating candidates with visual impairment.

The fifth question to examination development experts was to explain the short comings in the process of developing Ethiopian National Examinations in line with contemporary procedures of standardized achievement tests/Examination.(That is to mean the involvement of appropriate professionals in item development, piloting of items, Item analysis, item banking etc) In this regard, examination development experts indicated the test development procedure of NEAEA is traditional which is based on the effort of few subject area specialists for the last many years to date.

ACCOMMODATING THE NEEDS OF SWVI IN ETHIOPIAN NATIONAL EXAMINATION

4.2.2. Administration of national examinations for SWVI

In this portion of the paper, both quantitative and qualitative data related to the administration of national examinations is presented and analyzed. Data from respondents is presented in the following table.

Table 2**The response of exam administration experts**

No.	Items in questionnaire	Scales										
		Very High	%	High	%	Moderate	%	poor	%	none	%	total
1	The extent of students' complaints on time allowed for National Examinations	4		3		2		1		0	%	
		11	67.7	6	33.3	-	-	-	-	-	-	17
2	Consideration of EGSECE and UEE Schedules for students with visual impairment in allowing additional time	-	-	-	-	-	-	-	-	17	100	17
3	Consideration of EGSECE and University Entrance Examination Schedules for students with visual impairment in administering few subjects in exam days	-	-	-	-	-	-	-	-	17	100	17
4	The practice of collecting, organizing and using data on candidates with disabilities in National Examinations.	-	-	-	-	-	-	6	33.4	11	66.6	17
5	The experience of accommodating candidates with low vision in NEAEA. (E.g. Preparing exam booklets in large font size, considerations on sitting arrangement and enough light for reading etc during examinations)	-	-	-	-	-	-	-	-	17	100	17
6	The use of Braille and other assistive technologies in administering National Examinations for visually impaired students	-	-	-	-	-	-	-	-	17	100	17
7	The level of your attempt to get professional support from Special needs professionals	-	-	-	-	-	-	2	11.2	15	88.8	17

ACCOMMODATING THE NEEDS OF SWVI IN ETHIOPIAN NATIONAL EXAMINATION

As it is shown in table 2 above, the first question to examination administration experts was about the extent of students' complaints on time allowed for National Examinations. In this regard, 33.3% of the participants agreed that students' compliant on time allowed for National Examination was high. 67.7 % of the participants replied the compliant of students with visual impairment on time allowed is to be very high. The data has indicated that the entire candidates with visual impairment agreed that the complaints of SWVI on the time allowed for National Examinations was high.

Qualitative data obtained from group discussion, SWVI and interviews also has indicated the shortage of examination time for visually impaired candidates.

The second question to examination administration experts was the consideration of EGSECE and UEE Schedules for students with visual impairment in allowing additional time. In this regard, all participants replied the schedule has no consideration for visually impaired candidates in relation to additional time. This was also confirmed by all respondents of the research. Therefore, NEAEA should improve its schedule by considering the needs of SWVI. The researcher also believes that admitting for many subjects in exam days may deteriorate students' performance. Therefore, reducing the number of examinations may create a relaxed condition both in allowing students to revise their materials and do their exams in stable condition. The presence of reasonable gap between examinations also may open opportunity to allow extended time accommodation for SWVI.

The third question was about the consideration of EGSECE and Ethiopian University Entrance Examination Schedules for students with visual impairment in administering few subjects in exam days. In this regard all exam administration experts and all respondents replied

ACCOMMODATING THE NEEDS OF SWVI IN ETHIOPIAN NATIONAL EXAMINATION

there was/is no consideration for SWVI in administering few subjects in exam days. According to National examination schedules, all students should take from a minimum of two to maximum four per every examination day. Number of questions for EGSECE -Geography, History, Biology, Amharic, Chemistry ,English and Civics is usually from 80 to 90 to be completed within 90 minutes. In case of UEE, number of questions is 80,105,100,100,80, for History, Geography, Biology, Civics. Economics and English to be completed within 2 1/2 ,2.00 , 2 ½ , 2.00, 2 ½ , 2.00, 2.00 hours respectively. Quantitative data obtained from SWVI, (90% of the participants) also confirmed the shortage of examination time for SWVI. Therefore, NEAEA should consider reducing the number of examinations to be given in each examination days. Reducing the number of questions in examinations to a reasonable quantity would also help candidates with visual impairment to attempt all items in relaxed condition.

The fourth question to examination administration experts was about the practice of collecting, organizing and using data on SWD for National Examinations. In this regard, 66.6% of the participants replied NEAEA is not organizing and using data on SWD for national examinations. The rest 33.4% of the participants replied, NEAEA to be poor in organizing and using data on SWD in national examinations. Data from my interview to the key official of NEAEA also has indicated the gap in collecting, organizing and using data on candidates with disabilities except blind candidates who have relatively good data about their enrollment. Data of my documentary analysis has also indicated the absence of data organized for future use and planning except their number, grade and sex of blind candidates. No report have been generated, reported and discussed about their achievement so far except for this research. Therefore, NEAEA should work with MOE in collecting data in types of disabilities and number

ACCOMMODATING THE NEEDS OF SWVI IN ETHIOPIAN NATIONAL EXAMINATION

of students in each disability. The system of screening should be established across all schools to identify students with disabilities and support system should be established. Referral and medical attention of students with VI should be in place to reduce the number of blind students/candidates. NEAEA should collect data and also plan about their accommodation in national examinations.

The fifth question to examination administration professionals was about the experience of accommodating candidates with low vision in NEAEA. In this regard, all participants replied there was no experience of accommodating students with low vision in NEAEA so far. Data from my interview to the officials of NEAEA also confirmed there was no attempt to treat the case of candidates with low vision so far because of the gap in knowledge and practice in accommodating candidates with disabilities. Therefore, NEAEA should work towards accommodating candidates with low vision. Data should be collected regarding candidates with low vision based on the reports from schools. Of course the practice of screening students with disabilities should also be established. Providing magnifying lenses and preparing examination booklet in reasonable font size may help students with low vision.

The six question to the participants was about the use of Braille and other user friendly technologies in administering National Examinations for visually impaired students. In this regard, all examination administration experts and respondents of this study replied none of the assistive technologies and Braille are used for accommodating visually impaired candidates so far. According to my observation, the only and only service rendered by NEAEA for blind students was human reader. Therefore, NEAEA should accommodate candidates by allowing the use of different alternatives according to their needs. In this regard, allowing extended time,

ACCOMMODATING THE NEEDS OF SWVI IN ETHIOPIAN NATIONAL EXAMINATION

Braille, audio recordings, projectors, computers etc would help candidates to exercise their full potentials.

The seventh question to examination administration experts was about the level of their attempt to get professional support from Special needs professionals. In this regard, 88.8% of the participants replied the level of their attempt to get professional support from Special Needs professionals was none. 11.1 % of the participants replied they have poor attempt to get professional support from Special Needs Education professionals. The data has indicated that the entire number (88.8%) of the participants were not attempting to get professional support from special needs education professionals. This is also true to examination development experts ,85.7%. As a participant observer, I have also learnt the organizational structure of NEAEA has no place for special needs professionals. Even from my interview with officials of NEAEA, it seems to be unclear for them about the employment and contribution of special needs professionals. Therefore, NEAEA should improve its organizational structure and employ special needs professionals to improve the test development and administration practice which is labeled by many professionals in the area as “traditional” with regard to disability issues in particular and achievement test development procedures in general. The directorate of special needs education support and inclusive education in MOE should also work jointly with NEAEA and fill the attitudinal gap to the level required so as to curb the existing situation.

The eighth question to exam administration experts was to list the accommodations provided by NEAEA for visually impaired candidates of National Examinations? The only thing mentioned by experts and all participants of the study was about the recruitment of human readers and their service during national examinations. According to the data from group

ACCOMMODATING THE NEEDS OF SWVI IN ETHIOPIAN NATIONAL EXAMINATION

discussion of the former blind students of the national examinations, most blind readers were inefficient in providing the service and also suggested alternative accommodations like Braille and audio recordings for blind candidates in national examinations. Teachers, school administrators and Students also qualified what has been suggested by members of group discussion(all participants were blind). Therefore, NEAEA should establish a system that would make examination accessible to SWVI by using different alternatives of accommodation like Braille, audio recordings, computers and assistive technologies.

The ninth question to exam administration experts(open ended question) was to describe the major problems in NEAEA regarding the accommodation of candidates with visual impairment in National examinations. Lack of awareness on different conventions ratified by the country like United Nations Convention on the Rights of Peoples with Disabilities(UNCRPD) and local policy frame works on disability, absence of regulations to enforce the convention and policy frameworks and absence of responsible body in the organization(department) to attend the issue of disability were mentioned.

ACCOMMODATING THE NEEDS OF SWVI IN ETHIOPIAN NATIONAL EXAMINATION

Table 3

The response of SWVI (blind students)

No.	Items in questionnaire	Scales									
		Very High	%	High	%	Moderate	%	Poor	%	None	%
1	The level of their psychological readiness during National Examinations	4		3		2		1		0	%
		3	4.7	5	7.8	45	71.9	7	12.5	-	-
2	The skill of blind students in and Braille literacy.	7	12.5	20	31	21	27	15	29	-	-
3	The level of students' skill in using computer.	1	1.6	-	-	20	31.3	23	37.5	17	28.1
4	The practice of Sebeta secondary school in accommodating visually impaired students during classroom examinations.	1	2	2	4.7	27	42.2	30	46.9	1	1.6
5	The clarity of human readers' voice during National Examinations.	3	4.7	10	15.6	35	54.7	15	23.4	1	1.6
6	The appropriateness of your human readers' speed during National Examinations.	1	1.6	3	4.7	2	3	56	89	1	1.6
7	The Personal qualities of human readers in national examinations (Politeness ,punctuality, industriousness etc)	4	6.3	15	25	11	18.8	30	48.4	-	-
8	The Strength /discipline/of readers in protecting Examinations from destruction/Cheating .	8	12.5	21	34.4	24	39.1	8	12.5	-	-
9	About the convenience of exam rooms during National Examination? E.g. silence, cleanness, ventilation etc	1	1.6	9	14.1	18	28.1	30	46.9	5	7.8
10	the extent to which the school is preparing blind students with visual impairment for National Examinations	-	-	5	7.8	6	9.4	49	78.1	2	3.1
11	The level of educational materials provided by the school by considering the disability of SWVI.	1	1.6	-	-	9	14.1	38	60.9	14	21.9

ACCOMMODATING THE NEEDS OF SWVI IN ETHIOPIAN NATIONAL EXAMINATION

As it is shown in table 3 above(table 2), data was collected from blind students regarding the national exam administration.

The first question to blind students was about the level of their psychological readiness during National Examinations. In this regard, 12.5 % of the respondents said their psychological readiness for National examinations was poor, 71.9% of the respondents agreed their readiness was moderate, 7.8% of the respondents agreed to be high and 4.7% of them said they had very good psychological readiness during their National examinations. The data indicated that blind candidates of the national examination have entirely moderate psychological readiness for national examinations. This might be because of frustrating nature of high stake examinations or limitations from parent and school support for SWVI. Therefore ,schools, parents and even NEAEA should encourage and build the psychological readiness of blind candidates for National examination using different alternatives like advices in different media and during orientation programs . In addition, accommodating blind candidates in instruction, assessments and national examinations may also support their psychological readiness.

The second question to the participants was about the skill of blind students in Braille literacy. In this regard, 29.5% of the students replied they were poor in Braille literacy. 27% of the participants replied they are moderate, 31 % for high and 12.5 % students agreed their Braille reading and writing skill was very high. In this regard, about 83.2% of the respondents replied they have skills from moderate to very high levels in Braille literacy. Therefore MOE, its stakeholders and the school should focus on encouraging and expanding specific disability skills for SWVI.

ACCOMMODATING THE NEEDS OF SWVI IN ETHIOPIAN NATIONAL EXAMINATION

The third question to the respondents was about the level of students' skill in using computer. In this regard, 18 students (28.1 %) of the respondents replied they can't use computers. 24 students (37.5%) of the respondents said they are poor, 20 students (31.3%) moderate and 1 student (1.6 %) of the respondents replied they have very high skill in computer. The data has indicated that 97 % of the participants are either at poor or moderate level in computer skill. Qualitative data from teachers and school administrators also confirmed the computer literacy among many visually impaired students is said to be low. Therefore, training students in basic computer skills has paramount importance in educating blind students and open a window to utilize the growing technology which is the best equalizer.

The fourth question to the respondents was about the practice of the school in accommodating visually impaired students during classroom examinations. In this regard, 1.6% of the participants replied schools have no experience of accommodating blind students in classroom examinations, 30 students(46.9%) replied for low ,27students (42.2%) replied for moderate level, 4.7 % for high and 2% for very high. The data indicated that 90.7 % (58 students) replied the school have either low or moderate practice in accommodating blind students in classroom examinations. Data from teachers and school administrators also confirmed the former data and 70.3% of the respondents agreed the practice of accommodating students with visual impairment in the school is to be low. According to the observation of the researcher, the enrollment and participation of visually impaired students in government vocational schools of Addis Ababa was almost nearer to Zero. Only one student was attending his class in Entoto technical and vocational institute in department of music(evening program).

ACCOMMODATING THE NEEDS OF SWVI IN ETHIOPIAN NATIONAL EXAMINATION

According to the sources from the school and the student, three blind students were registered this year(2015/2007) for the first time after ups and downs because the school officials were not ready to accept blind students. The students also indicated the short comings of National examinations in accommodating visually impaired students in similar condition to the blind students of Sebeta Secondary and Preparatory School. According to the student, the exam development and administration of national examination is not considering visually impaired students. Absence of Braille and other assistive materials, insufficient time allowed for examinations, inefficient readers and inappropriate settings were mentioned by the student. Therefore, MOE should pay attention regarding the accommodation of blind students in classroom assessments. In this regard, Providing on job training for teachers in classroom management and attaching the issue of accommodation in instruction and assessment should be given due attention by the Ministry. Opening the doors of all vocational schools and encouraging students with visual impairment should be among the priorities of the Ministry and all its stakeholders in actualizing inclusive education and accommodative assessment.

The fifth question to the participants was about the clarity of human readers' voice during National Examinations. In this regard, 23.4 % (15 students) of the participants replied for their human readers clarity of voice to be poor, 54.7 % (35 students) said moderate,15.6% (10 students) high and 4.7 % very high. The data indicated that more than half of the participants, (54.7%), agreed the clarity of human readers' voice to be moderate. Therefore NEAEA should give orientation to human readers on how to read and provide better service for blind candidates of National examinations.

ACCOMMODATING THE NEEDS OF SWVI IN ETHIOPIAN NATIONAL EXAMINATION

The sixth question to the blind participants was about the appropriateness of human readers' speed during National Examinations. In this regard, 1.6% of the participants agreed the speed of human readers during national examinations was not totally appropriate. 3.1% agreed for moderate, 89.% agreed that the appropriateness of human readers speed was poor, 4.7% of the participants replied for high and 1.6% for very high. The data has indicated that the appropriateness of human readers' speed was poor (89.%). Therefore, NEAEA should prepare selection criteria (on the basis of merit) for human readers and give appropriate orientation for recruitment of human readers, examination center chiefs and supervisors.

The seventh question to the participants was about the Personal qualities of human readers in national examinations (Politeness ,punctuality, industriousness etc). In this regard, 48.4% of the participants agreed human readers are not Polite ,punctual and industrious . 18. 8% agreed for the Personal qualities of readers to be moderate, 25% for high and 6.3% for very high. In this regard, about half (48.4%) of the participants agreed that the personal qualities of *human readers* were not totally appropriate. Mr. Abework (pseudo name), one of the leader of disability organization observed the problem of using human reader from two directions according to his experience. The first thing he mentioned was about the questionability of exam validity due to the chance it opens for *human readers* to assist the candidates in doing exams. The second problem he indicated was the image born from this experience as if blind candidates were being assisted by their *human readers* during National examinations which he called " pandemic" attitudinal problem among university lecturers usually reflected by giving lower or pass mark for blind students by undermining their potentials. Abework said, "NEAEA should stop using

ACCOMMODATING THE NEEDS OF SWVI IN ETHIOPIAN NATIONAL EXAMINATION

human readers because of its double disadvantages and also replace it by other alternatives such as Braille and audio recordings”.

The eighth question to the participants was about the Strength /discipline/of readers in protecting Examinations from destruction/Cheating. In this regard,12.5 % of the participants agreed the integrity of readers in protracting the exam from malpractices to be poor. 39.1% of the participants agreed for moderate,34.4% of the participants agreed for high and 12.5% agreed for very high. The data has indicated 73% of the participants agreed human readers who are helping blind students in providing reading service are either high or moderate in protecting National Examinations from destruction.

The ninth question to the participants was about the convenience of exam rooms during National Examination? E.g. silence, cleanness, ventilation etc

In this regard,7.8% of the participants agreed that the examination rooms were absolutely poor,46.9% (30 students) agreed the condition(setting) of examination rooms for national examination of blind candidates was poor. 28.1% (18 students) agreed for presence of moderate examination setting ,14.1% of participants agreed for high, and 1.6 for very high convenience of examination setting. The data indicated that most blind participants (46.9%) of the study agreed the convenience of examination rooms during National examination was poor. Therefore, the school and its community should work to improve the situation of examination halls.

The tenth question to the participants was about the extent to which the school is preparing blind students with visual impairment for National Examinations. In this regard, 3.1% of the participants agreed their school is not preparing students for National Examinations.78.1%

ACCOMMODATING THE NEEDS OF SWVI IN ETHIOPIAN NATIONAL EXAMINATION

of the participants agreed the school was poor in preparing blind candidates for National Examinations. 9.4% of the participants agreed for moderate, and 7.8 % of the participants agreed the schools is highly preparing blind candidates for National Examinations. Therefore, schools should give counseling service to avoid students' frustration and prepare model examinations with similar standards to the National Examinations (number of questions, exam setting, and time) to increase the exam taking skills of students.

The eleventh question to the participants was about the level of educational materials provided by the school by considering the disability of SWVI. In this regard ,21.9% of the participants agreed the level of educational materials provided by the school to be none. 60.9% of the participants said poor,14.1.% said moderate, 1.6% of the participants said the level of educational materials provided by the school to be very high. The data has indicated that the educational materials provided by the school for blind students to be poor. Teachers and school administrators indicated the schools' long years practice of using Braille and its resource room equipped with different educational materials prepared in Braille is a promising one even though their number, type and up datedness is in question. Therefore, the school and its stakeholders like MOE should give attention to provide the necessary educational materials for SWVI.

About the readability of national examination booklets, 55.6% of the participant students with low vision replied their level/font size/ to be poor. 44.6% of the participants agreed the readability of Ethiopian National examinations to the students is moderate. Data has indicated that most of the students with low vision are not comfortable with the readability of national examinations. Therefore, two alternatives could be taken as a solution according to the researcher. NEAEA should collect data on the number of students with low vision and enlarge

ACCOMMODATING THE NEEDS OF SWVI IN ETHIOPIAN NATIONAL EXAMINATION

the font size of national examination booklets. A caution should be taken regarding the clarity of diagrams, tables and other stimulants in the examination. Parents and the schools should also support students in providing magnifying lenses.

4.3 Lived experience of the former SWVI in national examinations

In this portion of the paper, lived experiences of former SWVI who were successful in their academic journey and already assumed different positions from senior expert to executive directorship of cross and single disability organizations and associations will share their experiences of national examinations . Authorities of MOE and NEAEA also have a say on examination development, administration and the practice of accommodating students with visual impairment.

**All the names and letters used in this section are pseudo names and representations*

Former students from disability association and organization have shared their lived experience related to national examination and the difficulties they face because of the absence of due consideration for their disabilities. Mr.Abework, who is a blind, and leader of a disability organization shared almost similar experiences with the participant blind students. Abework remembered how he was disappointed because of inefficient *human reader* when he was admitted for National Examinations. In this regard, members of Ethiopian National Association for the Blind(ENAB), “yemisrach handicraft training and rehabilitation center for people with disabilities, Federation of Ethiopian National Associations of Persons with Disabilities(FENAPD),and Help Peoples with Disabilities Organization(HPDO),ECDD have shared their experiences.

ACCOMMODATING THE NEEDS OF SWVI IN ETHIOPIAN NATIONAL EXAMINATION

Mr. Am, an old blind man of 69 from *Yemisirach* center has indicated that in the first place students with visual impairment requires special attention and support during instruction. For example teachers should express different concepts clearly so that blind students can visualize and create understanding. Repeating some ideas, providing notes and different learning materials may also help them. He also indicated that writing in bold on the black board may help students with low vision. The use of different accommodations can significantly improve their achievement according to Mr. Am. He also added, preparing National Examinations by considering disability and supporting these populations by using different accommodation methods during exam administration is also mandatory. He said ,ENAB is providing Braille training for school teachers and other people who are in need of Braille skills.

Mr. Abework, a leader of a disability organization(blind) also added, Education and training should be accessible for peoples with disabilities. Abework emphasized ,as a signatory of UN convention of peoples with disabilities, Ethiopia should accommodate peoples with disabilities in every walk of life since its implementation on the ground is lagging behind.

Abwork also explained, the problems of using human reader from two directions. The first thing he mentioned is about the questionability of exam validity due to the chance it opened for readers to assist the candidates in doing the exam. The second problem he indicated was the image born from this experience as if blind candidates are being assisted by their readers during National examinations which is pandemic attitudinal problem among university lecturers usually reflected by giving lower or pass mark for bland students and undermining their potentials. Finally Abework recommended the replacement of human reader by other alternatives like

ACCOMMODATING THE NEEDS OF SWVI IN ETHIOPIAN NATIONAL EXAMINATION

Braille and audio recordings. He underlined, the issue of accommodating SWD both in instruction and examination should be given attention by the ministry and its stake holders.

Mr. Ab and Mr. Su from Ethiopian National Association for the blind (ENAB) also qualified the idea of my former interviewees. They indicated that ENAB is jointly working with the Ministry of Education & Regional states like Amhara and Tigray in preparing Braille text books for secondary school students. Leaders of ENAB also disclosed their plan to train Braille for blind teachers. Miss.Sh. from Federation of Ethiopian National Association of Persons with Disabilities, also confirmed what is already mentioned by disability association leaders above.

In addition, they also emphasized the provision of refreshment and in service short trainings for teachers and concerned professionals in Education sector. Trainings should focus on classroom management of inclusive class, training on Braille and computer skills (for both teachers and students) and assessing students with disabilities. According to the members of the group discussion, similarly professionals in National exam development and administration should update their skill and knowledge to the current global experiences in assessment of candidates with disabilities.

Etegeyitu, a distinguished blind disability activist, also explained about the exam setting of blind students. She said,

“Blind students in National Examinations were examined in corridors where people move, talk, and sometimes shout. They are also exposed for sunlight, rainfall or dust. This practice may have direct impact on students’ achievement. She explained how the absence of established system regarding the accommodation of candidates with visual impairment is affecting students’ future”.

ACCOMMODATING THE NEEDS OF SWVI IN ETHIOPIAN NATIONAL EXAMINATION

Mr. ALE also indicated the presence of chained bureaucracy in NEAEA which is not responsive to the demands of candidates with VI for some improvements. Mr. Ale. also explained blind students' exemption from Mathematics, Physics and Chemistry which is part and parcel of core curriculum is another disadvantage in their life experience and their professional competency.

Etegeyitu added,

“Many educated blind people were cancelled from scholarships because of their alienation from computational sciences and related skills. Blinds students who were attended their higher education in Ethiopia are forced to fill their gap in computational skills by their personal effort. She added, lack of computational skills is hindering their professional excellence and has put them in disadvantage. She said, this phenomena is the major failure of our Educational system in relation to students with visual impairment”.

Members of the discussion also indicated their lived experience about unfair test items (for having rigorous calculations and other problems), time constraint for blind candidates, de-emphasis of the needs of candidates with low vision, absence of alternative methods of accommodation such as digital recorders and different technologies like Braille during exam administration. In addition they also pointed problems related to human readers who were assigned for blind candidates. In this regard, they presented their own personal experiences. Etegeyitu remembered her reader during national examination who was not happy when he was asked to repeat questions. Other problems raised by the members of FGD were inefficiency in reading, inappropriate speed and uncomfortable voice of readers during their service. They also indicated many blind candidates of National Examination cannot cover all items presented in the exam because of time constraint.

Mr.AM. from Yemisirach Handicraft Training and rehabilitation center also emphasized on Braille training and the responsibility of schools to prepare SWVI for National Examinations. He also indicated the advent of computer technology recently has dual impact on Braille.

ACCOMMODATING THE NEEDS OF SWVI IN ETHIOPIAN NATIONAL EXAMINATION

According to Mr. AM, many students opted to use specialized software (Joss) instead of Braille. Conversely, computer has also eased the utilization of Braille by translating in to text and speech forms. He indicated Braille literacy trainings should be expanded outside Addis Ababa and some boarding schools to the majority of blinds in rural Ethiopia side by side with other accommodation alternatives like basic computer skills. Mr.AM. said, “blind candidates in Ethiopian National Examinations are totally at the mercy of their readers”. He added, “there was no guarantee whether the exam is read appropriately and the answer is blacken or printed on the answer sheet correctly”. Mr.S and Mr. AB. from Ethiopian National Association for the Blind, W/ro Sh. from FENAPD, also forwarded similar views with the former interviewees. They also added, students who are capable of reading and writing Braille should be examined by Braille in National Examinations. They also indicated that NEAEA should take the necessary steps to improve the assessment of students with visual impairment. They also said, students with VI suffered from lack of accessible text books(in Braille and other format), insufficient support from teachers, attitudinal problems from their own family and the society as if they are inferior to other students. They indicated, inaccessible supplies and infrastructure in schools s are also another obstacles. Mr. S also indicated that blind teachers in some places are not provided appropriate curriculum materials. He said the situation is worse for those students with VI trying to join technical and vocational institutions.

About the role of their associations in preparing students with Visual impairment for National Examinations, Mr.Abework from HPDO explained,

ACCOMMODATING THE NEEDS OF SWVI IN ETHIOPIAN NATIONAL EXAMINATION

“Disability movement politics in Ethiopia is very complicated. Both single disability organization like ENAB and Cross Disability organizations like HPDO are fragmented, unorganized, confined in urban areas, financially weak, poor in expertise and professionals and even some of them are areas of conflict for building private cult and personal benefits. Therefore, associations are lacking common voice and forum to influence the society and put pressure on government for the implementation of UN convention ratified by the House of Peoples Representatives of FDRE. What has been done in Education sector so far is insignificant regarding disability. I would like to thank the FDRE Ministry of Education for employing the largest portion of educated blind people. The life of peoples with disabilities in Ethiopia is characterized by desperate poverty, stigmatization and economic marginalization. Therefore, the issue of rights is overemphasized because of these pressures. He also mentioned some accomplishments of his organization like Braille training for teachers and translation of text books into Braille format.

Mr. SU. and AB. also indicated the role played by ENAB in preparing SWVI for education. They said, regarding national examinations what has been done so far is almost none. They indicated, associations are playing some important roles in education and life of PWD. According to the participants, ENAB is participating in blindness prevention programs with Orbit International in southern Nations Nationalities and Peoples region, and provision of revolving fund for members of the association so that they can support their family. In addition, their participation in legislative issues of our country was helpful to shape the future of PWD.

Participant members of disability association also indicated that NEAEA is reluctant in using different accommodation alternatives other than the human reader. They also under scored

ACCOMMODATING THE NEEDS OF SWVI IN ETHIOPIAN NATIONAL EXAMINATION

MOE and NEAEA should be practical in realizing the UN convention on the Rights of Persons with Disabilities. They said, “education and assessment should be accessible and accommodating to the peoples will disabilities”. Mr. Abework from Help Peoples with Disabilities(HPWD) indicated that some restrictive criteria for recruitment of teachers and entry criteria for trainees’ of TVET should be improved because of their discriminatory nature. The entry criteria for TVET students and the recruitment criteria for teachers indicates trainees and teachers should be “physically and mentally healthy” (see ETP page 20:3,4,1).He said, “the document is not clear about the involvement of people with disabilities though in practice it is good(vice versa)”.

Participant members and leaders of associations and organizations working in disability areas unanimously indicated the presence of good political atmosphere and policy frameworks as an opportunity for accommodating SWVI in National Examinations. According to my interviewees, the major achievements includes article 41/5 of FDRE constitution, Ethiopia’s observance of United Nations Convention on the Rights of Peoples with Disabilities in 2010, promulgation of proclamation number 568/2008 on the right to employment of persons with disabilities, Health policy of FDRE, the building proclamation No. 624/2009 and the education and training policy (1994) were mentioned. They also indicated the existence of wider gap in implementation of these policy frame works among which the accommodation of students with visual impairment in instruction and assessment to be one of the areas requiring concerted effort of the government and the society in resolving attitudinal and practical barriers.

ACCOMMODATING THE NEEDS OF SWVI IN ETHIOPIAN NATIONAL EXAMINATION

Mr.A, one of the key official in NEAEA, also indicated the absence of clear and comprehensive strategic plan concerning candidates of national examinations with disabilities. He added, the agency should include the issue in clear and detailed manner for implementation in the times and years to come. He also mentioned about different practices like employing human readers for blind candidates and implementing the affirmative action endorsed by the government for placement of students with disabilities in higher Education institutions. He also explained, the unsuccessful attempt of his organization and ENAB on preparation of National Examinations by Braille some years ago. He also indicated the disagreement between NEAEA and ENAB as a cause for the agency not to start preparing national examination using Braille. According to Mr.A, the major difference raised from ENAB was that many blind candidates were not ready to take National Examination by Braille because of the gaps in Braille literacy of many candidates. Mr. Z ,another official of NEAEA, has also indicated that his organization is committed to include the accommodation of students with disabilities in National Examinations in the years and times to come.

In addition, Mr. A said, “the level of test preparation and administration is traditional compared to the procedures of standardized achievement tests”. He also added ,NEAEA is realizing the employment of professionals in Special Needs Education. He stressed, establishing a kind of unit or department to attend issues related to disability in NEAEA. According to Mr.A, no manual has been developed on exam preparation and administration in NEAEA so far. He added, the assessment tools of NEAEA are not appropriately assessing SWVI because of the gaps in Exam development and administration. He also indicated, NEAEA is taking different measures to increase the quality of assessment tools recently. Mr.Z also added ,the

ACCOMMODATING THE NEEDS OF SWVI IN ETHIOPIAN NATIONAL EXAMINATION

accommodation of students with disabilities should start from item writing and should also go through item piloting, analysis and item banking. Mr.Z also indicated that currently NEAEA is trying to improve its testing practice and this improvements will also hoped to benefit all candidate of National Examinations including candidates with VI. Both officials of NEAEA said “Ethiopian National Examinations are not accommodating the needs of candidates with visual impairment to the level expected”. This idea was also qualified By Mr. M, one of the key officials in MOE.

In addition, the officials of MOE and NEAEA indicated ,lack of due attention and commitment, absence of clear organizational policy and legal framework, and the gap in experience of assessing students with disabilities are some of the challenges of the ministry. They said, “this is causing dissatisfaction on our National Examinations from the side of students with disabilities because of our failure to use various alternative methods of accommodation”.

According to the officials of NEAEA and MOE, the agency should take practical steps to host different experiences on accommodation of candidates with disabilities in National Examinations as fast as possible.

ACCOMMODATING THE NEEDS OF SWVI IN ETHIOPIAN NATIONAL EXAMINATION

4.4 Consequences from the experiences of SWVI in national examinations

Both the quantitative and qualitative data has indicated that SWVI in Ethiopian national examinations were encountering several challenges resulting in different consequences. The consequences were summarized as follows.

- ❖ Frustration and gap in psychological readiness was created among SWVI during national examinations.
- ❖ Because of shortage of time allowed for national examinations, SWVI have difficulties to complete some questions(Items) during the national examinations.
- ❖ Inappropriateness in skills (clear pronunciation and voice ,speed) of human readers to deliver quality service for blind students has reduced the satisfaction of SWVI.
- ❖ Poor personal qualities (politeness, punctuality, industriousness was etc) of human readers and their influence on administration of national examinations was one of the major reasons of students' complaint.
- ❖ Inappropriate examination settings or rooms (cleanness, silence, ventilation) has reduced students' comfort by destructing their attention during national examinations. Some blind students sit for their national examinations in corridors where people move and shout, and under trees where they were exposed to noise, sunlight rays, and wind and rain.
- ❖ Poor schedule of national examinations for SWVI which is manifested as a result of the uniform administration of examinations without considering disability(taking 2-4 examinations in one day) is another reason of dissatisfaction and frustration.

ACCOMMODATING THE NEEDS OF SWVI IN ETHIOPIAN NATIONAL EXAMINATION

- ❖ Presence of some inappropriate examination questions that require visual sensation and extended time.(rigorous calculation, complex tables etc) was another consequence of poor (*traditional*) practice of examination development.
- ❖ The font size of national examinations booklets was difficult to read for students with low vision and is was another cause of dissatisfaction among SWVI.
- ❖ Absence in provision and utilization of assistive devices, technologies and alternative accommodations has affected the examination taking skills of SWVI.

CHAPTER 5

DISCUSSION, CONCLUSIONS AND RECOMMENDATIONS

The study was guided by the main research objectives listed in chapter one with the main objective being to study the topic **accommodating students with visual impairment in Ethiopian National Examinations**. Issues related to the study and theoretical frame works considered were seen in chapter two. The central theory considered was Bronfenberenner's ecological system theory. This section also includes the major findings of the research before the discussion part.

This chapter will cover

Discussion on the findings under the following topics:

- ❖ Bronfenberenner's ecological theory
- ❖ Test development and administration of national examinations for students with visual impairment(disabilities)
- ❖ Disparity of result in national examinations between sighted and blind students in National examinations
- ❖ **Accommodation and technology for assessment of students with disabilities.**

The major findings the study revealed are very low level practice in accommodating students with visual impairment in exam development and administration of national examinations, disparity of result in national examinations, inconvenient school environment for learning and classroom assessment of SWVI in Sebeta Secondary and Preparatory School,

ACCOMMODATING THE NEEDS OF SWVI IN ETHIOPIAN NATIONAL EXAMINATION

failure of the educational system in providing parts of core curriculum (mathematics, physics and Chemistry) to blind students and the gap created in their professional competency, the gap in implementing and enforcing the UN Conventions of Persons with Disabilities and other related policy frameworks ratified by the country, and problems related to awareness and use of accommodation alternatives and modern technology, which is the best equalizer for visually impaired students.

Bronfenbrenner's Ecological Systems theory

The central theory of this research, Bronfenbrenner's Ecological Systems theory looks at a child's development within the context of the system of relationships that form his or her environment. Bronfenbrenner's theory defines complex "layers" of environment, each having an effect on a child's development. Bronfenbrenner calls these bi-directional influences, and he shows how they occur among all levels of environment. The interaction of structures within a layer and interactions of structures between layers is key to this theory. SWVI have a number of environmental influences starting from micro level to the wider macro level. Creating conducive learning, assessment and living environment for SWVI (PWD in general) at large should be the responsibility of the society and the government. As part of the community, people with all forms of disabilities should be part of the solution and should exert maximum effort for the realization of international instruments ratified by the country, FDRE constitution and local policies.

ACCOMMODATING THE NEEDS OF SWVI IN ETHIOPIAN NATIONAL EXAMINATION

Test development and administration of national examinations for students with visual impairment(disabilities)

As a part of education, any assessment should consider the needs of students with disabilities. Examinations for SWVI should be appropriate in their mode of presentation, should be supported by accommodations, should have appropriate time for SWDs to complete the test, and should be administered in proper places(settings). In Ethiopian national examinations, similar standards were used for students with disabilities and without disabilities during test administration (i.e. equal time, similar instructions, equal number of questions and similar setting). As a result, most of the blind students/candidate of national examinations were unable to complete some questions in their examinations because of shortage of time. The practice has caused anxiety and frustration for national examinations among SWVI. According to Snetsclaor,2009,cited in Alemayehu,2011), *the student with disabilities should not be penalized if he/she cannot finish the exam because of the tools employed(he is using)*.

Students' disability can potentially hinder their skill of taking examinations unless and otherwise they are supported and accommodated. The disabling conditions should be removed or the student should be supported by some kind of appropriate accommodation since disability is not the required construct to be measured in assessments. As long as students with disabilities are without accommodations in national examinations, NEAEA is measuring their disabilities, not their potential. This makes the Ethiopian national examinations to be unfair and discriminatory for SWVI. Students with disabilities also share disadvantages and pains of discrimination as part and parcel of the wider community in Ethiopia.

ACCOMMODATING THE NEEDS OF SWVI IN ETHIOPIAN NATIONAL EXAMINATION

According to Tirusew (2005),

“In Ethiopia attitudes and practices discriminating against children with disabilities are widespread. It exhibits itself not only with absence of social integration but also lack of access to social services such as health, education, transportation, information, leisure and legal protection. Furthermore, discrimination is demonstrated by lack of special programs designed to CWD”

In Ethiopian National examinations, students with visual impairment (SWVI) were not considered during examination development. According to the researcher's investigation, in 2006/14 some questions in the exam were cancelled by the agency because of the complaints from blind students for having rigorous calculation in Economics subject. Many questions in exams also require vision to relate the stimulus part, the stem of questions and alternatives(answers and detractors) at an average of one minute per questions and with the help of human readers for selecting correct answers. A blind student is at disadvantage if rigorous calculation is included in the test under today's reality in Ethiopia where they are exempted from computational sciences and haven't acquired the knowledge and skills required for the test items.

SWVI are also at disadvantage because of equal examination time for all students regardless of their disabilities. Extended time should be recommended for SWVI because visual impairment may affect incidental learning and concept development as well. Data has indicated that SWVI are more or less without support and accommodation both in instruction and assessments (in school level and national examinations). They are not equally treated and disadvantaged since the exam administration was without appropriate accommodation and under uniform standards. It is also found that NEAEA was not preparing national examinations by using the procedures of achievement test. The difficulty level, power of discrimination,

ACCOMMODATING THE NEEDS OF SWVI IN ETHIOPIAN NATIONAL EXAMINATION

reliability and other psychometric properties of the national examinations were not known to date. Test items were not piloted and analyzed. The development of National examinations was technically traditional and of low level. Consequently the exam could have double negative impact on SWVI both psychologically and on their achievement. The exam can also be a potential challenge and even obstacle against the academic journey of SWVI in particular and all students in general by endangering their opportunity to join universities and to be part of the world of market during their future life.

Disparity of result in national examinations between sighted and blind students in National examinations

According to my comparison of the achievements of sighted and Non sighted students in ESECE and EUEE there was significant difference in favor of sighted candidates in both examinations. The comparison was made by using students' result from years 2004/2012-2006/14. As to EUEE the difference was 32.97, and for EGSECE, 10.9 national mean in favor of sighted students. Most probably one of the reasons for the disparity might be related to the absence of accommodation in exam development and administration practices. Of course it might be as a result of lack of overall support and accommodation from micro level at family to the macro level as it was indicated in Ecological systems theory. Absence of concern and sense of urgency with regard to the accommodation of SWVI in education and assessments from the government side is disappointing. Good will by itself without action is not enough.

The short and long term plans of NEAEA as well as MOE have not shown concern for accommodation of students/candidates with disabilities in assessment except the promise indicated to actualize inclusive education in various policy documents. According to the annual

ACCOMMODATING THE NEEDS OF SWVI IN ETHIOPIAN NATIONAL EXAMINATION

report of MOE in 2014, the participation of students with special Educational needs in schools nationally was disappointing (only 3.33%). The annual statistical abstract and the 2014 report of MOE doesn't mention any about the achievement of blind candidates in national examinations. Surprisingly, the national learning assessment which is responsible to inform policy makers about the overall progress (healthiness) of the educational system didn't generate any report about the status of students with disabilities from years to date. It seems the issue of disability in national examination and national learning assessment is underemphasized.

Accommodation and technology for assessment of students with disabilities.

United nations and APA are very much concerned about reasonable accommodation of students with disabilities. Those countries ratified the UN convention of persons with disabilities like Ethiopia should give due attention for its implementation.

The UN Convention of Persons with Disabilities (2006) Article 5 sub article 3 indicates, "States Parties shall take all appropriate steps to ensure that reasonable accommodation to promote equality and eliminate discrimination." Article 24 no. 2 .B. also states "Persons with disabilities can access an inclusive, quality and free primary education and secondary education on an equal basis with others in the communities in which they live". Article 24 no.3 A. also states about "Facilitating the learning of Braille, alternative script, augmentative and alternative modes, means and formats of communication and orientation and mobility skills, and facilitating peer support and mentoring.

According to the APA Standards, standard 13.1 states that "When educational testing programs are mandated by school, district, state, or other authorities, the ways in which test

ACCOMMODATING THE NEEDS OF SWVI IN ETHIOPIAN NATIONAL EXAMINATION

results are intended to be used should be clearly defined. Such a clear definition helps identify both intended and unintended consequences of high-stakes decisions based on test results.

Standards also recognize that high-stakes tests involve additional, unique considerations. " When all students of a particular age or in a given grade are required to participate in an assessment. Standard 11.23 recommends that users [of the test] should identify individuals whose disabilities ... [indicate] the need for special accommodations in test administration and ensure that these accommodations are employed (C.M. Morrison,2000).

“The Comment that accompanies this standard notes that appropriate accommodations depend on the nature of the test and the specific needs of the test taker. In addition, Standard 10.8 urges that those responsible for decisions about test use with potential test takers who may need modifications should "(a) possess the information necessary to make an appropriate selection of measures, (b) have current information regarding the availability of modified forms of the test in question, (c) inform individuals, when appropriate, about the existence of modified forms, and (d) make these forms available to test takers when appropriate and feasible. Moreover, Standard 10.10 urges that "any test modifications adopted should be appropriate for the individual test taker" and that a "test professional needs to consider reasonably available information about each test taker's experiences, characteristics, and capabilities" that may affect test performance. The authors of the APA Standards recognize that although "more valid results may be obtained through the use of a test specifically designed for use with individuals with disabilities" (C.M. Morrison, 2000).

SWD are at disadvantage as long as appropriate accommodation during test administration is provided. A student with low vision may not read small font sized texts and hence may not do

ACCOMMODATING THE NEEDS OF SWVI IN ETHIOPIAN NATIONAL EXAMINATION

examinations without the help of magnifying lenses though he/she is a fast learner. According to the data obtained from the entire respondents, the use of assistive devices/equipments and techniques of accommodation were given due attention. Importing and adapting technologies and providing trainings for teachers, SWVI, test developers and test administrators can improve the situation. Ethiopia should use the best practices of other countries like Sweden, Zambia, Nigeria etc in relation to accommodation. The expansion of power infrastructure in Ethiopia may open a fertile ground in using assistive equipments for PWDs and to address the wider community in rural Ethiopia. According to the report of American Foundation for the Blind (2015), "depending on the disability, there are many possible types of accommodation: Extended testing time, Additional rest breaks, Writer/recorder of answers, Reader, Sign language interpreter (for spoken directions only) Braille, Large print, Large-print answer sheet, Audio recording, Audio recording with large-print figure supplement, Audio recording with raised-line (tactile) figure supplement, Low-noise testing environments, Wheelchair-friendly testing rooms, Examinations that are individually proctored, Assistive devices or adaptive equipment (e.g., computers, calculators, specialized software). Technology has removed many barriers to education and employment for visually impaired individuals. Students with visual impairments can complete homework, do research, take tests, and read books along with their sighted classmates, thanks to advances in technology, adults with visual impairments can continue to work and pursue a tremendous range of careers because of the use of computers and other devices (AFB,2015).

ACCOMMODATING THE NEEDS OF SWVI IN ETHIOPIAN NATIONAL EXAMINATION

These include:

- Assistive technology programs that run on off-the-shelf computers can speak the text on the screen or magnify the text in a word processor, web browser, e-mail program or other application.
- Stand-alone products designed specifically for people who are blind or visually impaired, including personal digital assistants (PDAs) and electronic book players provide portable access to books, phone numbers, appointment calendars, and more.
- Optical character recognition systems scan printed material and speak the text. Braille embossers turn text files into hard-copy.

The guideline for curriculum differentiation and Individualized Educational program of Ministry of Ethiopia (2012) evaluated the status of Learners with Special Needs Education as follows.” Despite the effort Ethiopia has shown in the process of Education for All (EFA), it has been noted that there is still a gap in the provision of access to all learners and actualizing special needs education. The major constraints experienced by Learners with Special Educational Needs (LSEN) are lack of awareness about diversity, poor pedagogical approaches, inconvenient learning environment, and lack of identification and assessment procedures. Rigidity of the school curriculum may be another factor that has hamstrung the students learning progress. Teachers with LSEN in their classes find it difficult to modify the curriculum.

As a result of this, it has become very challenging for schools and teachers to welcome and to accommodate LSEN in accordance with their learning potential and pace of learning. LSEN are mainly left without any extra support which has lead to the big amount of repeaters

ACCOMMODATING THE NEEDS OF SWVI IN ETHIOPIAN NATIONAL EXAMINATION

and drop outs, and most of the learners with special educational needs have no access at all to the education system. In providing a suitable learning environment for learners with special educational needs, the school authorities should pay attention to relatively high rates in repetition and drop out”(MOE,2012). As it is indicated above, the findings of the research are more or less confirmed by the report of MOE. The findings of the study has indicated how difficult the learning environment to the students with visual impairment was. Here it is very important to note the gap in actualizing a comprehensive (universal) assessment for students with different needs in classroom instruction and examination should be addressed.

The gap in professional proficiency of blind students/people associated with their exclusion from some subjects of the core curriculum (Mathematics, Chemistry and Physics) in Ethiopian Education system and its impact on professional proficiency was another finding indicated in the research. According to Texas School for the Blind and Visually Impaired (2007), It has been demonstrated that curriculum developed for sighted students is available for, and success in its mastery is achievable by visually impaired students. If the educational system provides students who have a necessary foundation of experiential learning with appropriate educational materials, and if there are excellent support services, including qualified and credentialed teachers of visually impaired students and orientation and mobility instructors, then the existing curriculum for sighted students will provide the visually impaired student the "...opportunity to be equal...". However, "...the right to be different..." clearly implies that there is more to education for visually impaired students than the exact same curriculum provided to sighted students. This added curriculum that is specific to visually impaired students is also well-known, but has not been diligently implemented. Could it be that parents and professionals have

ACCOMMODATING THE NEEDS OF SWVI IN ETHIOPIAN NATIONAL EXAMINATION

no problem with the "...opportunity to be equal...", but have difficulty with "...the right to be different..."? The Expanded Core Curriculum for visually impaired students includes: Assistive technology/technology, Career Education, Compensatory/Access Skills, Independent Living, Orientation & Mobility, Recreation & Leisure, Self-Determination, Sensory Efficiency, and Social Interaction.

According to FDRE Education and Training policy (1994), number 3.7.7, *special attention will be given in preparation and utilization of support input for special education.*

As it is clearly shown in discussion part, the findings of this study are supported by the literatures and the ecological systems theory. Therefore, a lot has to be done with respect to SWVI in development and administration of national examinations (capacity building for item and test developers, exercising achievement test procedures side by side with the assessment principles of PWD, and the use of technology and different methods of accommodation in national examinations.

CHAPTER SIX

CONCLUSION AND RECOMMENDATION

Conclusion

Ethiopian National examinations are given to all students with different background under a uniform procedure regardless of their disabilities.(Equal time, equal number of questions, and similar setting). There was a wide gap in considering the disability of SWVI in presentation of examinations. Paper and pencil examination was the usual form of exam presentation for all students since last six decades. There was no consideration in time, place of examination, and convenient option for SWVI to give their answers against exam items. Because of the absence of due attention, lack of commitment as well as the gap in overall considerations for disability in the process of item development and administration, Ethiopian National examinations were not accommodating the needs of students with visual impairment however Ethiopia has ratified the UN convention of persons with disabilities.

5.3. Recommendations

Based on the findings, the following recommendations are forwarded.

- The state should establish a comprehensive disability legislature for enforcing international instruments already ratified by the country and other proclamations at local level, and should give emphasis for the actualization of UN convention of

ACCOMMODATING THE NEEDS OF SWVI IN ETHIOPIAN NATIONAL EXAMINATION

persons with disabilities regarding reasonable accommodation and accessibility of Education for SWVI.

- MOE should emphasize on identification, assessment and support of SWDs, allocate earmarked budget for assistive devices, infrastructure modification, training of specific disability skills like computer and Braille, and the use of assistive technology which is the best equalizer for students with disabilities.
- MOE, NEAEA, and their stakeholders should pay attention with regard to accommodation of students with Visual impairment in classroom instruction and assessment.(be it in school level or national examinations)
- The NEAEA should tap global experiences and provide capacity building programs for test developers and administrators regarding the accommodation of SWVI, establish a unit comprising Special needs professionals to consult and support the examination development and administration.
- NEAEA should develop national examinations according to the procedures of standardized achievement tests with appropriate accommodations, and should scale up best practices of accommodation in assessment of SWDs as far as regional states and schools.

ACCOMMODATING THE NEEDS OF SWVI IN ETHIOPIAN NATIONAL EXAMINATION

- The school should contact governmental and NGOs to work for better accommodation of SWVI. In addition, MOE should also use a media advocacy campaign to promote a more disability-friendly academic and work environment

ACCOMMODATING THE NEEDS OF SWVI IN ETHIOPIAN NATIONAL EXAMINATION

References

- Alemayehu Agonafir (2011). Challenges and opportunities of students with visual impairment in using IT. The case of selected preparatory schools, departments and faculty of Addis Ababa University. AAU
- Abebe Yehuwalawork (2014). Good intentions are not enough. Retrieved on Feb 25/2015 from <http://www.dandc.eu/en/article/ethiopia-be-disabled-equals-being-poor>
- Accommodations for Students with Disabilities.(2014).
www.education.umn.edu/NCEO/TopicAreas/Accommodations/Accom_FAQ.htm
Retrieved 4/27/05.
- American foundation for the blind (2015).<http://www.afb.org/info/living-with-vision-loss/for-job-seekers/foremployers/accommodations-for-workers-with-vision-loss/types-of-accommodations/12345> retrieved on March 20/2015 from
- Anto Archanto (2004). The educational challenges of *integrated* blind students; the case of sodd high school, MSC thesis, AAU
- Amare Asegid (2005). Higher Education in Pre-Revolution Ethiopia: Relevance and Academic Freedom, Ethiopian Journal of Higher Education Vol.2 No 2 December 2005
- Americans with Disability Act(ADA) 1990, US department of Justice, Civil right Division, Washington DC
- American Psychological Association (2002,6th edition). Electronic references. Retrieved from <http://www.apastyle.org/elecref.html>(revised)

ACCOMMODATING THE NEEDS OF SWVI IN ETHIOPIAN NATIONAL EXAMINATION

- Bairu Tafla (1967). The Blind in Ethiopia. In The Braille Monitor. Shasta Road Berkeley, California.
- Banister, (1994). Qualitative Methods in Psychology: A Research Guide. Buckingham: Open University Press.
- Byrnes, MaryAnn (2000). Accommodations for students with disabilities: Removing barriers to learning, [www.findarticles.com/ p / articles/ mi_qa3696/ is_200002/ai_n8887807/ print](http://www.findarticles.com/p/articles/mi_qa3696/is_200002/ai_n8887807/print). Retrieved 1/27/15.
- Burt Franklin (1970). Narrative of the Portuguese Embassy to Abyssinia during the Years 1520-1527 , Newyork.Central Statistics Agency (CSA).(2008). Summary and Statistical Report of 2007 Population and Housing Census, Addis Ababa.
- Christopher M. Morrison (2000). High-Stakes Tests and Students with Disabilities, <http://lawdigitalcommons.bc.edu/bclr>
- Cara cahalan (2004). Accommodations on High stake Tests for Students with disabilities, Research report for Educational Testing Service, USA
- Carolyn S. and Rienour (2008). Mixed Methods Research, Southern Illinois University, USA
- Daniel M. Koretz (2003). Assessing Students With Disabilities: Issues and Evidence
CRESST/Harvard Graduate School of Education ,Karen Barton, CTB/McGraw Hill
- Dukuzumuremyi Salvador (2013). The use of technology to promote the learning of visually impaired students and non-disabled peers, University of Oulu.(Research report)
- DFID (2000). Poverty, disability and Development, London.
- Education and Training Policy (1994). The Federal Democratic Republic of Ethiopia, Addis Ababa.

ACCOMMODATING THE NEEDS OF SWVI IN ETHIOPIAN NATIONAL EXAMINATION

ETS (2005). Overview of psychometric concepts, Global Institute, Educational Testing Service, USA.

Federal Ministry of Health (2006). National Survey on Blindness, low vision and Trachoma in Ethiopia, Addis Ababa.

Fikru Gebrekidan (2013). From Orality to Literacy: A cursory Glimpse into the History of Blind Education in Ethiopia.

H.Monga and N.Joachim (2014). Equity in Educational Assessment of Grade 12 Students with Hearing Impairment. Paper submitted to 32nd annual conference of AEAA, Livingstone/ Zambia.

Handicap International (2007). Report on assessment of CWD in Addis Ababa

Iyi Uwadiae1 and A. A. Adalakun (2014). The challenges of ensuring quality assurance in assessment in multicultural contexts: the case of the west African examinations council, paper submitted to 32nd AEAA conference, Livingstone/Zambia/

Institute of Educational Research(2006). Educational issues for sustainable development in Africa, Journal article, University of Jyvaskyla, Finland

John W. Creswell (2009). Research Design. Qualitative, Quantitative and Mixed Approaches. California: Sage publications, Inc.

Kellaghan, T & Greaney.V. (2001). The globalization of assessment in the 20th century, Assessment in Education, 8, 87-1

Local Team(2003). Employability of Graduate Students with Disability in Ethiopia, of special Needs Education, AAU.

ACCOMMODATING THE NEEDS OF SWVI IN ETHIOPIAN NATIONAL EXAMINATION

Lori Ann S. stretch and Jason W. Osborne (2005). Research Assessment and Evaluation, electronic journal Volume 10 Number 8, July 2005, North Carolina State University.

Marguerite Clarke (2012). What Matters Most for Student Assessment Systems , Washington DC.

Ministry of Education (2012). Education Statistics Annual abstract, A.A.

Ministry of Labor and Social Affairs (1996). Developmental Social Welfare Policy, Addis Ababa, Unpublished.

Ministry of Education (2010). Education Sector Development Plan, A.A.

MOE (2002). National Organization for Examinations Annual Magazine, May 2002, No.3.

MOE (2006). Special Needs Education implementation strategy, Addis Ababa.

MOE (2006). Annual report of 2006/14, Addis Ababa.

MOE (1999). Annual magazine of FDRE Ministry of Education, A.A.

MOE (2013). Guide line for Curriculum differentiation and Individualized Educational Program, Addis Ababa.

MoFED (2010). FDRE growth and transformation plan GTP), A.A.

NEAEA (2006). Policy framework for Ethiopian National examinations, Addis Ababa (Unpublished)

Reynolds, B. & Janzen, C. (1990). *Concise Encyclopedia of Special Education*. New York: John Willey & Sons.

Richard Pankhurst (1990). The social history of Ethiopia institute of Ethiopian studies, Addis Ababa University, Addis Ababa.

S.Carney, C.Engbretson,K.Scammell,andV.Sheppard,(2003).Teaching Students with Visual

ACCOMMODATING THE NEEDS OF SWVI IN ETHIOPIAN NATIONAL EXAMINATION

Impairment, Washington State University.

Solomon Areaya (2004). Qualitative Research. Beyond A Number Game,

IER Flambeau. Vol. 11, No. 2, Page 1-12.

Snetselaor.H (2009). information and technology in the education of visually impaired pupils, A

way to integration, publisher, RNIB, Amsterdam

Tilahun Mengesha (1994). National Examinations in Ethiopia and South Australia, The Flinders

University, South Australia.(Unpublished Masters dissertation)

Tirussew, Savolouhan, Agidew and Daniel (1995). Baseline Survey on Disabilities in Ethiopia.

Addis Ababa ,Addis Ababa University Press.

Tirussew. T. (1997). Psychosocial and Learning Aspects of Disability and Intervention

Strategies, Department of Educational Psychology. Addis Ababa University

(First Draft)

Tirussew Teferra (1993). Problems and Prospects of Person with Disability in Ethiopia. The

Ethiopian Journal of Development Research. Vol. 15, No. 1. P.1-10.

The Adaptive Technology Resource Centre: Retrieved <http://www.utoronto.ca/atrc/>

The Routledge Handbook of Disability Studies. London: Routledge, pp. 12-29). retrieved from

<http://www.mcgill.ca/files/osd/TheSocialModelofDisability.pdf>

United Nations (2002). Human rights and Disability, New York and Geneva

United Nations (1948).Universal Declaration of Human Rights, Paris

United Nations (2006). Convention on the Rights of Persons with Disabilities, Geneva,

Switzerland.

University of Olulu (20013). Learning, Education and Technology.

ACCOMMODATING THE NEEDS OF SWVI IN ETHIOPIAN NATIONAL EXAMINATION

WHO (2012).Global Data on Visual Impairment, Switzerland.

Zelalem Temesgen(2014). The Journey of Special Needs Education in Ethiopia, Journal of Education and Practice ,Vol.5, No.27,Bahirdar university.

ACCOMMODATING THE NEEDS OF SWVI IN ETHIOPIAN NATIONAL EXAMINATION

APPENDICES*1. Demographic Characteristics of the Respondents*

No	Respondents	sex					Age in category						Acc. status						Absents						
		M	%	F	%	T	16-20	%	21-25	%	Above 25	%	Gr-11	%	Gr-12	%	TVET	%	BA/BE/D	%	MSC	%	M	F	T
1	Blind students	55	84	16	14	71	59	82.2	12	16.9	-	-	39	55	28	43	2	2.81	2	14	77	76	-	-	-
2	Students with low vision	7	70	3	30	10	9	90	10	-	-	6	60	4	40	-	-	-	--	-	-	-	-	-	-
3	Exam development experts	9	100	-	-	9	-	-	-	9	100	--	-	-	-	-	-	2	22.2	7	77.7	77	-	-	-
4	Exam administration experts	7	87.5	1	12.5	8	-	-	-	8	100	-	-	-	-	4	50	4	50	-	-	-	-	-	-
5	Teacher and school administrators	70	76.2	21	23.07	91	-	-	-	91	100	-	-	-	-	-	-	84	92.3	7	7.6	66	4	10	
6	Members of disability organizations/associations	10	83.3	2	16.6	12	-	-	-	12	100	-	-	-	-	-	-	6	50	6	50	-	-	-	
7	Officials of NEAEA and MOE	3	100	-	-	3	-	-	-	3	100	-	-	-	-	-	-	-	-	-	3	100	-	-	-

ACCOMMODATING THE NEEDS OF SWVI IN ETHIOPIAN NATIONAL EXAMINATION

Appendix 2

Table 4

Teachers and school administrators' responses

No.	Items	scales										Total
		Very high	%	High	%	Moderate	%	Poor	%	Not	%	
		4		3		2		1		0		
1	Complaints of students with visual impairment on the time allowed for National Examinations	29	31.9	57	62.6	5	5.5	-	-	-	-	91
2	Your school practice in accommodating visually impaired students in examinations (i.e. allowing additional time, considerations on light and sitting arrangements, using Braille and different technologies etc)		2		4.7	27	42.2	30	40.6		1.6	
3	Appropriateness of exam questions of National Examinations to blind candidates E.g. exemption from calculations, punctuations, maps, diagrams, items requiring skills of measuring etc)	1	1.1	6	6.6	64	70.3	18	19.8	2	2.2	91
4	Appropriateness of National Examinations schedule for visually impaired students(i.e. the current experience of administering 3-4 examinations in a single day)	-	-	2	2.2	59	64.8	29	31.9	1	1.1	91
5	The level of assistive technology (Braille books, electronic dictionaries, recordings, slates, stylus, etc)you provide for visually impaired students during National Examinations	--	-	5	5.5	78	85.7	7	7.7	1.	1.1	91
6	The extent to which your school is preparing students with visual impairment for National Examination	-	-	-	-	62	68.1	22	24.2	7	7.7	91
7	The level of educational materials provided by your school by considering students' Visual impairment	2	1.6	-	-	16	14.4	67	74	16	14.3	
8	The practice of your school in providing magnifying lens and other materials for students with visual impairment	-	-	-	-	22	24.2	62	68.1	7	7.7	91

ACCOMMODATING THE NEEDS OF SWVI IN ETHIOPIAN NATIONAL EXAMINATION

Appendix 3

Addis Ababa University
School of Graduate Studies
College of Education and Behavioral Studies
Department of Special Needs Education

This questionnaire is to be completed by **blind students** who are admitted by National Educational Assessment and Examinations either for EGSECE or UEE. (i.e. Blind students from Sebeta Secondary and Preparatory School, University Students from 6 kilo campus and Technical and vocational Institutions)

To the Respondents:-

This questionnaire is prepared for the purpose of conducting a study entitled "Accommodating the Needs of students with visual impairment in Ethiopian National Examinations. Test accommodation is a change in the way a test is administered or in the way a student responds to test questions. Similar to instructional accommodations, test accommodations are intended to offset the effects of the disability and to provide students with the opportunity to demonstrate knowledge and skills on statewide assessments.

As you know National Examinations highly affect the life of students directly and they are one of the serious matters in determining the certification and placement of students in our country. This study is intended to explore to what extent the Ethiopian national Examinations are accommodating the Special needs of Visually impaired candidates and to recommend further improvements. To achieve the purpose, your cooperation in completing this questionnaire is highly appreciated. The success of this study by and large depends on your honest and sincere responses to the question items. The data you provide will be kept confidential and will not be disclosed to any third party. You are, therefore, kindly requested to provide the required information.

Thank you in advance for your cooperation

Direction: The questionnaire has two parts. For part one ,data collectors are expected to rate the scales by putting "X" mark in one of the boxes provided according to the responses of students. For part two, they are expected to write the experiences mentioned by participants in the space provided.

Personal information

1. Sex _____
2. Age _____
3. Academic status /Encircle your choice/
 - A. Technical and Vocational Institutes/TVET/
 - B. Grade 11
 - C. Grade 12

ACCOMMODATING THE NEEDS OF SWVI IN ETHIOPIAN NATIONAL EXAMINATION

D. University student

PART ONE

Number	Items	Scales				
		Very High	High	moderate	Poor	None
		4	3	2	1	0
1	The level of your psychological readiness for National Examinations					
2	The level of your skill in reading and writing Braille					
3	The level of your skill in using computer					
4	The practice of your school/s/ in accommodating visually impaired students during classroom examinations. (Allowing additional time, Preparing exam booklets in larger font size to assist students with low vision, using Braille and other technologies etc)					
5	Appropriateness of questions in National Examinations to the level of your disability (E.g. Exemption from contents with calculations, tables, punctuations etc for blind candidates)					
6	Clarity of your reader's voice during National Examinations.					
7	Fairness of time allowed for National Examinations					
8	Appropriateness of your reader's speed during National Examinations					
9	Personal qualities of your reader (Politeness ,punctuality, industriousness etc)					
10	Strength /discipline/of your reader to protect the Examination from destruction/Cheating					
11	Convenience of exam rooms during National Examination? E.g. silence, cleanness, ventilation etc					
12	Convenience of National examination /EGSECE and UEE/schedules for blind candidates. (E.g. Is administering 3 -4 examinations in a day convenient? what about break times between examinations for candidates with Visual Impairment?)					
13	The level of educational materials provided by your school considering your disability(Braille books, electronic dictionaries, recordings, slates, stylus, tape recorder etc)					
14	The extent to which your school is preparing students with visual impairment for National Examination					

ACCOMMODATING THE NEEDS OF SWVI IN ETHIOPIAN NATIONAL EXAMINATION

PART TWO

15. Describe problems that you encountered during the National Examinations?

16. Suggest possible solutions/opinions/ that can help to accommodate candidates with visual impairment in National Examinations ?

ACCOMMODATING THE NEEDS OF SWVI IN ETHIOPIAN NATIONAL EXAMINATION

Appendix 4

በአዲስ አበባ ዮኒቨርሲቲ የሰነ ጥምህርትና ስነሳህርይ ጥናት ኮሌጅ

የልዩ ጥምህርት ክፍል

ይህ መጠይቅ የተዘጋጀው የ10ኛ ወይም 12ኛ ክፍል ብሔራዊ ፈተናዎችን ለተቀበሉና ማየት ለተሳናቸው ተማሪዎች ነው። መጠይቁ የተዘጋጀው በአገር አቀፍ/ብሔራዊ/ ፈተናዎች የማየት ችግር ያሉባቸውን ተማሪዎችን ልዩ ፍላጎት ማስተናገድን በተመለከተ ለሚጠናው ጥናት መረጃ ለመሰብሰብ ሲሆን ጥናቱ በሰበታ ከፍተኛና መሠናዶ ጥም/ቤት ላይ ያተኮረ ነው።

እንደሚታወቀው ሀገር አቀፍ ፈተናዎች በአገራችን የተማሪዎች የወደፊት ዕድል ላይ የራሳቸውን ተፅዕኖ አድርገው የሚያልፉ ሲሆኑ የጥናቱ ትኩረት የሆኑት ዝቅተኛ የማየት ችሎታ ያላቸውና ማየት የተሳናቸው ተፈታኞች በፈተና ዝግጅትና አሰጣጥ ወቅት ተገቢው ድጋፍ ካልተደረገላቸው የበለጠ ተጎጂ ይሆናሉ። በሚል ሃሳብ መነሻነት፡ሲሆን የጥናቱ አላማም ከሁለተኛ ዲግሪ ማማያነት በመሻገር ሀገር አቀፍ ፈተናዎች የማየት ችግር ያሉባቸውን ተማሪዎችን ልዩ ፍላጎት ከማስተናገድ አንፃር ያሉባቸውን ችግር በመለየት የማሻሻያ ሃሳብ ለሚመለከታቸው መጠቆም ነው። ስለሆነም እርስዎ የሚሰጡት ትኩረት መረጃ ጥናቱን በተሳካ ሁኔታ ለመፈፀም ወሳኝነት ስላለው ትብብርዎን እየጠየኩ የሚሰበሰበው መረጃ በሚስጠር የሚያዝና ለታለመለት አላማ ብቻ የሚዉል መሆኑን በማረጋገጥ ለትብብርዎ ከልብ አመሠግናለሁ።

መመሪያ

1. መጠይቁ ሁለት ክፍሎች አሉት። በመጀመሪያው ክፍል መረጃ ሰብሳቢው ከተራ ቁጥር 1-11 የተዘረዘሩትን ጥያቄዎች በተራ በተራ እያነበበ ተጠያቂ ተማሪዎች የሚሰጡትን ምላሽ ከተዘጋጀው ስኬል /መለኪያ/ አንዱን በመምረጥ የ”X” ምልክት ያስቀምጥበት።
2. በክፍል ሁለት ላይ የተቀመጡት ሁለት ጥያቄዎች ለተጠያቂ ተማሪዎች ጥያቄዎቹን በማንበብ ተጠያቂ ተማሪዎች የሚሰጡትን አስተያየት ጠቅለል ባለ መልኩ በተዘጋጀው ክፍት ቦታ ወይም ቦታው ካልበቃ ከመጠይቁ በስተጀርባ ባለው ሥፍራ ይፃፏቸው።

የግል መረጃዎች ጸታ -----ው-----ሴ
 ዕድሜ -----
 የክፍል ደረጃ-----

ACCOMMODATING THE NEEDS OF SWVI IN ETHIOPIAN NATIONAL EXAMINATION

ክፍል አንድ

ተራ ቁጥር	ጥያቄዎች	መመዘኛ/ስኬል				
		በጣም ክፍተኛ	ክፍተኛ	መካከለኛ	ዝቅተኛ	ምንም
1	ብሔራዊ ፈተናዎቹን በወሰድክበት ወቅት ምን ያህል የስነ-ልቦና ጥንካሬ/ዝግጅት/ ነበረህ?	4	3	2	1	0
2	ብረይል የማንበብና የመጻፍ ችሎታህ እስከ የትድረስ ነው?					
3	የኮምፒዩተር አጠቃቀም ደረጃህ እስከምን ድረስ ነው?					
4	በትምህርት ቤት ደረጃ በሚሰጡ ፈተናዎች ወቅት የሚሰጥህ ድጋፍ እስከምን ድረስ ነው? ምሳሌ ተጨማሪ የፈተና ሰአት መፍቀድ ፣ዝቅተኛ የማየት ችሎታ ላላቸው በጉልህ የተዘጋጁ የፈተና ወረቀት ማዘጋጀት ፣ብረይልና ልዩ ልዩ ቴክኖሎጂዎችን መጠቀም ወዘተ					
5	በብሄራዊ ፈተናዎች የሚቀርቡ ጥያቄዎች ማየት የተሳናቸውን ተፈታኞች ከግምት ወስጥ ስለማስገባታቸው ምሳሌ ከባድ ስሌት፣ ሰንጠረዥ ፣ስርአተ ነጥብ ወዘተ ማየት የተሳናቸውን ተማሪዎች አለመጠየቅ					
6	ብሄራዊ ፈተና የሚያነብልህ ሰው ድምፅ ግልፅ ግልፅነት					
7	ለብሔራዊ ፈተናዎቹ የተመደበው የፈተና ሠዓት በቂ ስለመሆኑ					
8	ብሄራዊ ፈተና የሚያነብልህ ሰው ፍጥነት ተገቢ/ተስማሚ ስለመሆኑ					
9	ብሄራዊ ፈተና የሚያነብልህ ሰው ትውት ሰአት አክባሪና ተባባሪና ታታሪ ስለመሆኑ					
10	ብሄራዊ ፈተና የሚያነብልህ ሰው የፈተናውን ደህንነት በመጠበቅ ኩረጃን የሚከላከል ስለመሆኑ					
11	በብሄራዊ ፈተና ወቅት የመፈተኛ ክፍሎች ንፅህናና ምቹነት					

ACCOMMODATING THE NEEDS OF SWVI IN ETHIOPIAN NATIONAL EXAMINATION

12	<p>የሀገር አቀፍ/ብሄራዊ/ ፈተናዎች አሰጣጥ ነገሮች ለምሳሌ የማየት ችግር ያለባቸውን ተፈታኞች ፍላጎት ከግምት ውስጥ የማስገባት ደረጃው ምን ያህል ነበር?</p> <p><u>ምሳሌ</u> በየፈተናዎች መሃከል የተሰጠ የእረፍት ጊዜ በቁመታዎች፣ በአንድ ቀን ውስጥ የሚሰጥ የፈተና ብዛት የተመጠነ መሆን ወይስ የሚሉትን ነጥቦች እንድታያቸው ነው።</p>				
13	<p>ትምህርት ቤቱ የሚያደርግልህ የጽህፈት መሳሪያ ድጋፍ እስከምን ድረስ ነው?</p> <p><u>ለምሳሌ</u> -የብረይል መጻፍት ስታይለስ ስሌት ቴፕ ሪከርደር ወዘተ</p>				
14	<p>ትምህርት ቤቱ የማየት ችግር ያለባቸውን ተማሪዎች ለሀገር አቀፍ ፈተናዎች/ በማዘጋጀት ረገድ የሚያደርገው ጥረት እስከምን ድረስ ነው?</p>				

ክፍል ሁለት

- 15. ብሔራዊ ፈተናዎችን /10ኛ ወይም 12ኛ ክፍል/ በተፈተንክበት ወቅት የገጠሙህን ችግሮች ጥቀስ?
- 16. ለችግሮቹ ለወደፊት መፍትሄ ይሆናሉ የምትላቸው ሃሳቦች ካሉ ግለጽቸው?

ACCOMMODATING THE NEEDS OF SWVI IN ETHIOPIAN NATIONAL EXAMINATION

Appendix 5

**Addis Ababa University
School of Graduate Studies
College of Education and Behavioral studies
Department of Special Needs Education**

Questionnaire for candidates with Low Vision

Direction: This questionnaire is prepared for the purpose of conducting a study entitled “**Accommodating the Needs of students with visual impairment in Ethiopian National Examinations**”. A test accommodation is a change in the way a test is administered or in the way a student responds to test questions. Similar to instructional accommodations, test accommodations are intended to offset the effects of the disability and to provide students with the opportunity to demonstrate knowledge and skills on statewide assessments.

As you know National Examinations directly affect the life of students and they are one of the serious matters in determining the certification and placement of students in our country. This study is intended to explore the shortcomings of Ethiopian National Examinations in accommodating the Special Needs of candidates with visual impairment and to recommend further improvements. To achieve the purpose, your cooperation in completing this questionnaire is highly appreciated. The success of this study by and large depends on your honest and sincere responses to the question items. The data you provide will be kept confidential and will not be disclosed to any third party. You are, therefore, kindly requested to provide the required information.

Thank you in advance!

Direction: The questionnaire has two parts. For part one you are expected to rate the scales by putting “X” mark in one of the boxes provided. For part two, write your experiences in the space provided.

I. Background information

1.1. Sex _____

1.2. Age _____

1.3. Grade _____

ACCOMMODATING THE NEEDS OF SWVI IN ETHIOPIAN NATIONAL EXAMINATION

NO.	Items	Scales				
		Very High	High	Moderate	Poor	None
1	The level of your psychological readiness for National Examinations	4	3	2	1	0
2	Appropriateness of time allowed for National Examinations					
3	Readability of the font size in National Examinations					
4	The practice of your school in accommodating students with low vision during examinations. For example allowing additional examination time, preparing large font sized examination booklets, sitting arrangement and light considerations for better reading etc					
5	Appropriateness of National Examination Schedules for students with visual impairment. (For example the current experience of administering 3-4 National Examinations in a single day for all students with different background)					
6	Your level of using magnifying lenses during National Examinations					
7	Convenience of exam rooms during National Examination E.g. silence, cleanness, ventilation etc					

Part two

8. Describe the problems you encountered during National examinations?
9. Suggest possible solutions to the problems you described above?

ACCOMMODATING THE NEEDS OF SWVI IN ETHIOPIAN NATIONAL EXAMINATION

Appendix 6

**Addis Ababa University
School of Graduate Studies
College of Education and Behavioral studies
Department of Special Needs Education**

Questionnaire for Exam Administration Experts of the NEAEA

This questionnaire is prepared for the purpose of conducting a study entitled accommodating the Needs of Students with Visual Impairment in Ethiopian National Examinations. A test accommodation is a change in the way a test is administered or in the way a student responds to test questions. Similar to instructional accommodations, test accommodations are intended to offset the effects of the disability and to provide students with the opportunity to demonstrate knowledge and skills on statewide assessments.

As you know National Examinations directly affect the life of students and they are one of the serious matters in determining the certification and placement of students in our country. This study is intended to explore the shortcomings of Ethiopian National Examinations in accommodating the Special Needs of candidates with visual impairment and to recommend further improvements. To achieve the purpose, your cooperation in completing this questionnaire is highly appreciated. The success of this study by and large depends on your honest and sincere responses to the question items. The data you provide will be kept confidential and will not be disclosed to any third party. You are, therefore, kindly requested to provide the required information.

Thank you in advance!

Direction: The questionnaire has two parts. For part one you are expected to rate the scales by putting “X” mark in one of the boxes provided. For part two, write your experiences in the space provided.

I. Background information

- 1.1. Sex _____
- 1.2. Age _____
- 1.3. Academic Status /Encircle your status/
 - A. Diploma
 - B. BA / B.ed/ Degree
 - C. MA /MSC/ Degree

ACCOMMODATING THE NEEDS OF SWVI IN ETHIOPIAN NATIONAL EXAMINATION

PART ONE

No.	Items	Scales				
		Very High	High	Moderate	poor	None
1	The extent of students' complaints on time allowed for National Examinations	4	3	2	1	0
2	Consideration of EGSECE and UEE Schedules for students with visual impairment in allowing additional time					
3	Consideration of EGSECE and University Entrance Examination Schedules for students with visual impairment in administering few subjects in exam days					
4	The practice of collecting, organizing and using data on disabled candidates of National Examinations.					
5	The experience of accommodating candidates with low vision in NEAEA. (E.g. Preparing exam booklets in large font size, considerations on sitting arrangement and enough light for reading etc during examinations)					
6	The use of Braille and other assistive technologies in administering National Examinations for visually impaired students					
7	The level of your attempt to get professional support from Special needs professionals					

8. List the accommodations provided by NEAEA for visually impaired candidates of National Examinations?
9. Describe the major problems in NEAEA regarding the accommodation of candidates with visual impairment in National examinations?
10. Suggest possible solutions to the problems you mentioned above?

ACCOMMODATING THE NEEDS OF SWVI IN ETHIOPIAN NATIONAL EXAMINATION

Appendix 7

**Addis Ababa University
School of Graduate Studies
College of Education and Behavioral Studies
Department of Special Needs Education**

Interview Guide for the directors of NEAEA

I am glad to thank you for your willingness to participate in the interview. The main objective of this interview is to obtain important data for the study entitled **Accommodating the Needs of Students with Visual Impairment in Ethiopian National Examinations**. As you know National Examinations highly affect the life of students directly and they are one of the serious matters in determining the certification and placement of students in our country.

A test accommodation is a change in the way a test is administered or in the way a student responds to test questions. Similar to instructional accommodations, test accommodations are intended to offset the effects of the disability and to provide students with the opportunity to demonstrate knowledge and skills on statewide assessments.

To achieve the stated purpose, your cooperation in responding this interview is highly appreciated. All the information will be tape-recorded in order not to miss any relevant information. I promise the information collected will be used for academic purpose only and will be kept confidential.

Thank you very Much!

Direction: The following are items for my interview so that my interviewees could express their feelings, reactions and opinions orally. The medium of communication will be as to the preference of the interviewees. May be Amharic can elicit more information.

1. Back ground information

1.1. Age _____

1.2. Sex Male _____ Female _____

1.3. Educational status _____

Items for my Interview

1. Is the issue of accommodating candidates with disabilities in National Examinations included in the strategic documents/plans/ of the agency?
2. Do NEAEA have a guideline for developing and administrating National Examinations for candidates with visual impairment?
3. Do you think Ethiopian National Examinations are Accommodating the Needs of students with VI in examination development and administration ? If "YES "describe in what way. How?, If "NO why not?" describe?

ACCOMMODATING THE NEEDS OF SWVI IN ETHIOPIAN NATIONAL EXAMINATION

4. Do you think that the assessment tools prepared by the agency appropriately assess students with VI ? If "YES "describe in what way. How?, If "NO why not?" describe?
5. What do you think are the barriers in our agency regarding the accommodation of candidates with visual impairment in National examinations? (Eg. Considering disability in exam development and administration, the use different technologies for exam administration, and learning from the best experiences around the globe?)
6. As we all know currently disability issue in our country is constitutional as well a Human Right issues at large. In what pace and commitment do you think NEAEA should go in relation to MDGs particularly in exam development and administration?
7. Do you think that the agency would realize its mission by 2012 without addressing the Needs of candidates with VI?

ACCOMMODATING THE NEEDS OF SWVI IN ETHIOPIAN NATIONAL EXAMINATION

Annex 8

**Addis Ababa University
School of Graduate Studies
College of Education and Behavioral Studies
Department of Special Needs Education**

**Interview Guide for leaders of National Association for the Blind and other
Associations working on Disability areas.**

Dear friends, I am glad to thank you for your willingness to participate in the interview. The main objective of this interview is to obtain important data for the study entitled **“Accommodating the needs of students with visual impairment in Ethiopian National Examinations.**

A test accommodation is a change in the way a test is administered or in the way a student responds to test questions. Similar to instructional accommodations, test accommodations are intended to offset the effects of the disability and to provide students with the opportunity to demonstrate knowledge and skills on statewide assessments. As you know National Examinations highly affect the life of students directly and they are one of the serious matters in determining the certification and placement of students in our country.

To achieve the purpose, your cooperation in responding this interview is highly appreciated. All the information will be tape-recorded in order not to miss any relevant information. The researcher promises that the information collected will be used for academic purpose only and will be kept confidential.

Thank you!

Direction: The following are items for my interview so that you can express your feelings, reactions and opinions orally.

1.Back ground information

1.1. Age _____

1.2. Sex Male _____ Female _____

1.3. Educational status _____

Items for Interview

1. Would you please describe about the accommodation of students with visual impairment during Class room instruction and examinations /assessments?
2. Would you please mention the shortcomings of Ethiopian National Examinations in terms of accommodating students with visual impairment?

ACCOMMODATING THE NEEDS OF SWVI IN ETHIOPIAN NATIONAL EXAMINATION

3. Would you please describe the role of your association in preparing students with visual impairment for National Examinations?
4. Describe how to accommodate students with visual impairment in Ethiopian National Examinations?
5. Would you please tell me the opportunities to accommodate candidates with visual impairment in National Examinations?

ACCOMMODATING THE NEEDS OF SWVI IN ETHIOPIAN NATIONAL EXAMINATION

Annex 9

በአዲስ አበባ ዮኒቨርሲቲ የሰነ ጥምህርትና ስነባህሪ ጥናት ኮሌጅ

የልዩ ጥምህርት ክፍል

ለኢትዮጵያ አይነ ስወራን ብሄራዊ ማህበር አመራሮች የተዘጋጀ ቃለ-መጠይቅ

መጠይቁ የተዘጋጀው አገር አቀፍ/ብሔራዊ/ ፈተናዎች የማየት ችግር ያሉባቸውን ተማሪዎች ልዩ ፍላጎት ከማስተናገድ አንፃር ያሉባቸውን እጥረቶች በተመለከተ ለሚጠናው ጥናት መረጃ ለመሰብሰብ ሲሆን ጥናቱ የሃገር አቀፍ ፈተናዎች ዝግጅትና አሰጣጥ የማየት ችግር ካለባቸው ተፈታኞች አንፃር የሚሻሻልበትን መንገድ ይጠቁማል ተብሎ ይታመናል፡፡

እንደሚታወቀው ሀገር አቀፍ ፈተናዎች በአገራችን የተማሪዎች የወደፊት ዕድል ላይ የራሳቸውን ተፅዕኖ አድርገው የሚያልፉ ሲሆኑ የጥናቱ ትኩረት የሆኑት ዝቅተኛ የማየት ችሎታ ያላቸውና ማየት የተሳናቸው ተፈታኞች በፈተና ዝግጅትና አሰጣጥ ወቅት ተገቢው ድጋፍ ካልተደረገላቸው የበለጠ ተጎጂ ይሆናሉ። በሚል ሃሳብ መነሻነት፡ሲሆን የጥናቱ አላማም ሀገር አቀፍ ፈተናዎች የማየት ችግር ያሉባቸውን ተማሪዎችን ልዩ ፍላጎት ከማስተናገድ አንፃር ያሉባቸውን ችግር በመለየት የማሻሻያ ሃሳብ ለሚመለከታቸው ሁሉ መጠቀም ነው። ስለሆነም እርስዎ ማህበርዎን በመወከ የሚሰጡን ትክክለኛ መረጃ ጥናቱን በተሳካ ሁኔታ ለመፈፀም ወሳኝነት ስላለው ትብብርዎን እየጠየኩ የሚሰበሰበው መረጃ በሚስጢር የሚያዝና ለታለመለት ግብ ብቻ የሚወልድ መሆኑን በማረጋገጥ ለትብብርዎ ከልብ አመሠግናለሁ፡፡

የግል መረጃዎች ጾታ -----ወ-----ሴ
ዕድሜ -----
የክፍል ደረጃ-----

የቃለ መጠይቅ ጥያቄዎች

1. አካል ጉዳተኞችን በመማርና ማስተማር ሂደት ውስጥ አካቶ ስለማስታማርና ስለመመዘን ያለዎት አስተያየት ምንድነው?
2. ማየት የተሳናቸው ተማሪዎች ሃገር አቀፍ ፈተናችን ሲዎስዱ የሚገጥሙዎቸውን ችግሮችቢጠቅሱልኝ?
3. ማየት ለተሳናቸው ተማሪዎች ሃገር ለአቀፍ ፈተናዎች ለማዘጋጀት ከማህበርዎ ማን ይጠበቃል ይላሉ?
4. የማየት ችግር ያሉባቸው ተማሪዎች አገር አቀፍ ፈተናዎችን ሲዎስዱ ሊደረግላቸው የሚገባቸው ድጋፎችን አስመልክቶ ያለዎትን ሃሳብ ቢገልጹልኝ?

ACCOMMODATING THE NEEDS OF SWVI IN ETHIOPIAN NATIONAL EXAMINATION

5. የማየት ችግር ላሉባቸውን ዜጎች ሃገር አቀፍ ፈተናዎች ተደራሽ እንዲሆኑ ምን መልካም አጋጣሚ አለባቸው ይቻላል?