

**Factors that Hinder Academic Performance of Learners with Visual impairments in two  
Selected Special Schools of Rwanda**

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**A thesis submitted to School of Inclusive and Special Needs Education in  
partial fulfillment of the requirements for the Degree of Master of Education  
in Special Needs Education**

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**September 2018**

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This is to certify that the dissertation entitled “**Factors that Hinder Academic Performance of Learners with Visual impairments in Two Selected Special Schools of Rwanda**” is the work of Mr. Emmanuel MBERIMANA, submitted in partial fulfillment of the Requirements for the Degree of Master of Education in Special Needs Education.

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## **Acknowledgements**

I would like to express my sincere thanks to all those people who directly or indirectly contributed to the successful completion of this research. In particular, I would like to thank my supervisor Dr. NASIFORO BETH MUKARWEGO who tirelessly worked very hard to make sure that I completed this thesis. My regards goes to the University of Rwanda College of Education for having admitted to pursue masters' studies and School of Inclusive and Special Needs Education which gave me permit that allowed me to carry out my research in the special schools of learners with visual impairments HVP Gatagara Rwamagana and Educational Institute for Blind Children Kibeho. I also thank very these special schools for their contribution to allow, and helped me to collect primary data. I highly convey my warm regards to all my beloved friends and classmates who tirelessly worked very hard with me up to the completion of course work and this thesis. I would like to thank my mother MUKARUGEMA Bellancille and family members for prayers during this long period of study, may God bless them. May the Almighty God bless you all!

## **Dedication**

This thesis is dedicated to all my beloved friends who assisted and gave me a lot of encouragement throughout my writing of this thesis. May God bless you all.

## **Abstract**

The purpose of this research was to investigate factors that hinder academic performance of learners with visual impairments in two selected special schools in Rwanda. This study addressed the following objectives: to find out whether teaching materials used in special schools affect negatively academic performance of learners with visual impairment; to find out whether the teaching methods used in special schools affect negatively academic performance of learners with visual impairment; to investigate challenges faced by teachers when teaching learners with visual impairment in special schools; and to identify measures that school management put in place to address academic challenges of learners with visual impairments in special schools. The researcher used descriptive survey design. The research was conducted in two selected special schools; HVP Gatagara Rwamagana which is located in Eastern Province, Rwamagana District, and Educational Institute for Blind Children Kibeho which is located in Southern Province, Nyaruguru District. The target population was 380 respondents that included 171 learners with visual impairment, 27 teachers and 2 administrators of HVP Gatagara Rwamagana and 160 learners with visual impairment, 18 teachers and 2 administrators of Educational Institute for Blind Children Kibeho in the academic year 2017. In this study purposive and simple sampling techniques were used to select teachers and administrators while stratified sampling was used in selecting learners. Three instruments: questionnaires, interview guide and observation checklists were used to collect data on the factors that hinder academic performance of learners with visual impairment in Gatagara Rwamagana and Educational Institute for Blind Children Kibeho. Descriptive statistics was used to present and analyze the results of the study. The data of this research, learners, teachers and administrators showed that teaching and learning materials provided to learners with visual impairments were not sufficient compared to the numbers of learners with visual impairment need them where these learners with visual impairments share available learning and teaching materials. The data showed that although many respondents agreed that the teachers' teaching methodologies were appropriate in special schools there were others who disagreed that methodology of requesting learners to do research, give source of knowledge, where there was scarcity of materials means that methods that teachers used in teaching and learning were not appropriate. Teachers revealed challenges they face during teaching in special schools as teaching materials were not satisfactory; the period of forty (40) minutes was short to teach learners with visual impairments. The school management took measures of system of team working; establishing regular budget to support special education field; adapting teaching/ learning contents for visual impairment into Braille writing; provision of professional development course to staff to make refreshment about special methodologies to be applied to teach visual impairment learners; recruitment of teachers who are trained about special education; and digital library. It was recommended that the Ministry of Education should allocate a budget to make major renovations and adaptations in the physical facilities of special schools to make it friendlier to learners with visual impairments.

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## Abbreviations and Acronyms

**%:** percentage

**&:** and

**AFB:** American Foundation for the Blind

**CCTV:** Closed Circuit Television

**CWDs:** Children with Disabilities

**DPO:** Disabled People Organization

**e.g.:** Exempli gratia

**EDPRS:** The Economic Development and Poverty Reduction Strategy

**EFA:** Education for All

**ESSP:** Education Sector Strategic Plan

**et al:** et alia /et alii /et aliae

**HVP:** Home de la Vierge des Pauvres

**ICT:** Information and Communications Technology

**IDEA:** Individual with Disabilities Education Act

**KISE:** Kenya Institute of Special Education

**MINEDUC:** Ministry of Education

**NCPD:** National Council of Persons with Disabilities

**NFB:** National Federation of the Blind

**No.:** Number

**P.:** Page

**PWDs:** Persons with Disabilities

**REB:** Rwanda Education Board

**RJE:** Rwandan Journal of Education

**RUB:** Rwanda Union of the Blind

**SEN:** Special Educational Needs

**SNE:** Special Needs Education

**SPSS:** Statistical Package for the Social Sciences

**UNDP:** United Nations Development Program

**UNESCO IITE:** *UNESCO* Institute for Information Technologies in Education

**UNESCO:** United Nations Educational, Scientific and Cultural Organization

**UNICEF:** United Nations Children Education Fund

**UNISE:** Uganda National Institute of Special Education

**USAID:** United States Agency for International Development

**WHO:** World Health Organization

## **CHAPTER ONE: GENERAL INTRODUCTION**

### **1.0. Introduction to the chapter**

This chapter presents the background of the study, statement of the research problem, objectives of the study, research questions, significance of the study, scope and limitation, definition of key terms and conclusion.

### **1.1. Background of the study**

Education for all is based on the Universal Declaration of Human Rights in 1948. The convention establishes that basic education should be compulsory and free of charge for every child therefore, access to education should be addressed as a comprehensive challenge, with special attention to marginalized groups (Berit & Miriam, 2001).

United Nations Educational, Scientific and Cultural Organization (2004) has for a long time been active in the movement for education for all (EFA). At the World Conference on Education for All in Jomtien, Thailand 1990, the participants agreed upon the goals of basic education for all children and adults by the year 2000. The Jomtien Conference was not a single event but the start of a powerful movement. UNESCO, UNICEF, the World Bank, the UN Development Program (UNDP) convened the World Education Forum to evaluate the situation and strengthen the commitment to Education for All. Ten years later more than 1,100 participants from 164 countries gathered in Dakar, Senegal, for the World Education Forum. The purpose of the meeting was to review the assessment of the program made during the Jomtien Decade and to renew the commitment to achieving the Education for All goals and targets (Berit & Miriam, 2001).

Children and adults with special needs are one of the target groups in the Education for All movement. This was clearly laid down at the Jomtien Conference, at the World Conference on Special Needs Education (Salamanca, 1994) and most recently in Dakar 2000. UNESCO was given a leading role for the follow-up of the Dakar framework for action (Berit & Miriam, 2001).

According to Lewis (2009), across the world countries tried to fight against discrimination that faced children with disabilities in education and schools were aware of disability as an

educational issue and together with states, they combined their efforts to seek for means of helping children with disabilities in their studies and success.

According to Martha and Sheryl (2011) that in United States of America, it was found out that the majority (80-85%) of students with disabilities can meet the same achievement standards as other students if they are given specially designed instruction, appropriate access, supports and accommodations as required by Individual with Disability Act (IDEA).

Rwanda is a small landlocked mountainous country in Central Africa with an area of 26338 square kilometres (Foreign and Commonwealth Office, 2011), which makes it one of the smallest countries in sub-Saharan Africa (Karangwa, Miles and Lewis, 2010). Rwanda shares borders with Burundi, the Democratic Republic of Congo, Tanzania and Uganda. It currently has an estimated population of 9.3 million people (Foreign and Commonwealth Office, 2011).

According to the census conducted in Rwanda in 2002, the country had 8,128,553 inhabitants (Ministère des Finances et de la Planification Économique, 2004). According to this census, nearly five per cent of the population has a disability. In other words, according to this census, there were some 16,257 Rwandans with visual impairment in 2002. Unfortunately, the census data on disability were not disaggregated according to age, so it is not possible to say how many school-age children or, for the purposes of this study, primary and secondary-age Rwandans were reported to have a disability during the census.

The genesis of special needs education in Rwanda can be traced to organisations with religious affiliations, particularly Roman Catholic ones (Suubi, 2012). They started the first special primary schools in the country in the 1960s, and even now virtually all special primary schools in Rwanda are owned and managed by these religious organizations.

In 2005, Rwanda had approximately 20 special schools serving 1,500 individuals with disabilities (Ministry of Education, Science, Technology and Scientific Research, 2005). According to the Ministry, only six of the 20 special schools engaged exclusively in educational

activities, while the rest placed more emphasis on medical activities such as physiotherapy. The mixed nature of the activities that take place in these institutions is what leads to the use of the term 'schools' when referring to them. In 2010, the number of special schools had risen to 34 (Karangwa et al., 2010).

The situation of special schools in Rwanda is summarized by the Ministry of Education, Science, Technology and Scientific Research (2005, p.9) in the following words:

*Most of the special schools do not meet the minimum educational standards expected e.g. oral method is used in most special schools for deaf learners, deaf and blind learners are taught in the same class in one of the schools, most teachers do not have the needed training in Special Needs Education and there is lack of educational materials in most schools.*

In addition, in 2005, schools for the blind lacked enough Braille writing equipment as well as Braille textbooks. Most of the Braille literature available consisted of texts transcribed into Braille by teachers while Braille training for the students was of a low level (consisting mainly of training in Braille grade one) (Ministry of Education, Science, Technology and Scientific Research, 2005).

For a long time, access to secondary and tertiary levels of education was extremely limited for students with disabilities, especially those with sensory impairments. For instance, students with visual impairment had no access whatsoever to secondary school education until 1996 (Suubi, 2012). Before this time, visually impaired students were not allowed to sit for the end of primary examinations that would have allowed them to join secondary schools. After completing primary school, many visually impaired students returned to their homes or became beggars. A few managed to get training in massage techniques and were thus able to find employment. It was only in 1996 that the first students with visual impairment were allowed to sit for the primary leaving examinations and thus to join secondary school (Suubi, 2012). Eight visually impaired students became the first to enter secondary school in Rwanda in 1997 (Karangwa et al, 2010). It was not until 2008 that the first visually impaired students gained admission to Rwandan universities. In that year, the government of Rwanda started facilitating disabled students to join

tertiary institutions of teaching and learning (Lewis, 2009). As a result, six deaf/hard of hearing and 15 visually impaired students joined various public universities in the country (Lewis, 2009).

It is not clear why deaf/hard of hearing and visually impaired students encountered such hurdles in their academic progress. There is no official explanation as to why deaf/hard of hearing students cannot sit for the primary school leaving examinations in special schools for the deaf, neither was there any explanation for denying visually impaired students the opportunity to sit for the same examinations until 1996. The answer can perhaps be found in Miles and Singal's (2010) argument that the attitude among some people that some groups of children are ineducable led to the emergence of separate thinking about disability. The corollary of this attitude was that disabled children were excluded from mainstream schools and left out of official efforts to promote the welfare of other disadvantaged groups. Rwanda's Special Needs Education Policy admits that "the capacity, ability and potential of learners who have special educational needs are generally overlooked and therefore little provision is provided for their inclusion in the schools" (Ministry of Education, 2007b). One can therefore surmise that the difficulties encountered by deaf/hard of hearing and visually impaired students in accessing secondary and tertiary education may have had something to do with societal attitudes towards visual and hearing impairment: it is possible that it was thought that these two groups of people could not make it to high school and university.

Despite the foregoing, the government of Rwanda recognizes the need to address issues related to special educational needs (Ministry of Education, Science, Technology and Scientific Research, 2005). Its commitment to the education of people with special educational needs, including the disabled, has been outlined in a number of important documents, including the Constitution of the Republic which was promulgated in 2003 (Republic of Rwanda, 2003). Article 40 of the Constitution states that "every person has the right to education", and further declares that "the State has the duty to take special measures to facilitate the education of disabled people." In 2007, the government of Rwanda passed Law Number 01/2007 of 20/01/2007 relating to Protection of Disabled Persons in General (Republic of Rwanda, 2007). Chapter 2 of this law deals with the rights of disabled people in matters related to education.

Among other things, this law affirms the right of a disabled person to an appropriate education that takes his/her disability into account and commits the government to taking the necessary steps to assist disabled people in their pursuit of education. The law also states that learners who cannot study in mainstream schools because of the nature of their disability shall be facilitated to study in special schools.

Prior to 2007 there was no official government policy to guide special needs education provision in Rwanda. In that year, the Ministry of Education drew up the Special Needs Education Policy with the aim of “minimizing the barriers to access and to optimal learning” (Ministry of Education, 2007b, p.1).

In this section, the state of special needs education in Rwanda has been briefly presented. The discussion presented here was by no means a comprehensive one, and neither was it meant to be so. Its main purpose was to give the reader a general picture of the situation of special needs education in Rwanda, with a particular focus on the education of visually impaired people. Various documents related to this topic have been introduced and discussed. In addition, policies which are meant to promote the implementation of special needs education and inclusive education in the country have been outlined. In spite of the lack of adequate information pertaining to the status of special needs education in Rwanda, an effort has been made to acquaint the reader as far as possible with the current state of affairs regarding this aspect.

The government of Rwanda is also to look forward in the same way of worldwide. Thereby, Rwanda continues to remove barriers which prevent the education for persons with disabilities. Rwandan law No.1/2007 regarding persons with disabilities states that “the State has the obligation to monitor and support the federations, associations and special schools that cater for disabled persons” (Republic of Rwanda, 2007b).

As cited the Education Sector Strategic Plan (ESSP) 2010-2015 for July 2010, the mission of the Ministry of Education in Rwanda is to transform its citizen into skilled human through the system of Education for all.

Rwanda education sector with the purpose of access to quality, equitable and effective education states that for this purpose to be achieved in order to help children with disabilities access to education like others and participate optimally in schooling as their peers the number of education personnel and teachers with skills in inclusive and special needs education should be increased and support learning materials and appropriate learning resources should be scaled up (Republic of Rwanda, 2013).

In the last few years, there was creation of centers which started the education of the learners in form of special education and among those centers, there is Home de la Vierge des Pauvres (HVP)-Gatagara. In 1962, started the center for young Rwandans with disabilities at Gatagara in Nyanza District, in Southern Province. Until late 1990s, it was the only center that catered for, educated and reintegrated physically and visually disabled persons in Rwanda. This effort was initiated by Frère Fraipont Ndagijimana, a compassionate Belgian priest. Up to 1994, only five special schools were known to cater for children with disabilities by the charitable organizations of missionaries. Home de la Vierge des Pauvres (HVP) is the oldest (Karangwa, 2010).

In those days, learners with disabilities were given the basic education but they were fewer opportunities to achieve the institutions of higher learning. In Rwandan Journal of Education (RJE) Karangwa, Iyamuremye and Muhindakazi (2013) affirmed that before 1997 there was no secondary level schooling for learners with visual impairment in Rwanda and usually learners would have to go back to their respective home villages after their basic education levels. It was in 1997 that learners with visual impairments were given opportunity to join secondary school when Groupe scolaire Gahini opened its doors for their integration (Karangwa, Iyamuremye & Muhindakazi, 2013).

United States Census Bureau, (2012) stated that even if there is inclusion in special educational needs in all levels, the learners with disabilities are still facing many obstacles. The discrimination is still being observed for learners with disabilities, many factors are not sociable for those learners and continue to keep out them from different areas such as school and any other where they need services. Silas Ngayaboshya, a local program manager for Handicap

International, says that many families hide their children at home for the reason that being disabled is a shame and burden to the family and in previous years it was considered as punishment from gods (The Guardian weekly outlook on International Development, 2011). Learners with educational needs do not attend schools and who attended schools did not accomplish the secondary level and most of them dropped out of school. On the other hand, very few learners with disability achieved the level of higher learning. In the world, 95% of learners with disabilities were served in regular schools; only 3% were served in separate schools for students with disabilities. For these reasons, the researcher investigated factors that hinder academic performance of learners with visual impairments of Gatagara Rwamagana and Educational Institute for Blind Children Kibeho.

### **1.2.Statement of the research problem**

The World Health Organisation (2011a) estimates that worldwide, approximately 284 million people are visually impaired. Of these, 39 million are blind and 245 million have low vision. Moreover, according to the World Health Organization (2011a), some 90% of the world's visually impaired population lives in developing countries.

With this regards, UNESCO (2009) whispered that large number of learners with disabilities in developing countries do not attend schools, few of them who were registered in special schools where they were away from their families, friends, and peers, they were marginalized and had not given a chance to study in the same school with their peers where they had to enjoy school life like to play, to learn, to grow up with siblings.

UNESCO (2009) continued to say that teaching learners with disabilities can be challenging especially when learners with disabilities are registered in regular schools where they have to study together with non disabled learners because education of learners with disabilities requires special equipment and there are few teachers who are familiar with the use of these equipment.

Inclusive education services are the best approach to accessing education for all but the family and society views learners with disabilities as a burden in educational expenditures. This results into stigmatization, isolation and misconceptions about their physical and mental abilities thus

limiting school attendance and performance of learners with disabilities (Najjingo, 2009).

However, NaiKwai-Lo (2007, p. 49) explained that parents of learners with special needs believe that inclusive education should give at the same time, the satisfaction of increased options and complexities of diverse learning. As a result of the decentralization trend in education, reforms on education administration, and development of the education market, parents' choices have already become a factor that should settle on the direction of school operations. Numerous parents, who either desire to get better their children's learning standards in mainstream schools or wish for avoiding the stigma of register them in special schools, choose to send them to mainstream schools when they are given the preference.

The report entitled Rwanda Special Needs in the ESSP, 2006-2010 strategic plan revealed a significant rate of dropout and repetition rate in primary school about 12% and 15% respectively and a completion rate of only 65% accounting for the high number of special learners with special education needs.

It is therefore most of populations with visual impairments live in developing countries, which attend schools, are few in number because of their families and society who consider their education as educational expenditures which results into stigmatization, isolation and misconception about their physical and mental abilities. It is in this context, the researcher investigated factors that hinder academic performance of learners with visual impairments in Two Selected Special Schools in Rwanda from the year of 2012 up to 2015.

### **1.3.Objectives**

#### **1.3.1. General objective**

The general objective of this study was to investigate factors that hinder academic performance of learners with visual impairments in two Selected Special Schools of Rwanda

#### **1.3.2. Specific objectives**

This study was guided by the following specific objectives:

1. To find out whether teaching materials used in special schools affect negatively academic

performance of learners with visual impairment.

2. To find out whether the teaching methods used in special schools affect negatively academic performance of learners with visual impairment.
3. To investigate challenges faced by teachers when teaching learners with visual impairments in special schools.
4. To identify measures that school management put in place to address academic challenges of learners with visual impairments in special schools.

#### **1.4. Research questions**

This study was guided by the following research questions:

1. How can teaching materials used in special schools affect negatively academic performance of learners with visual impairment?
2. How do teaching methods used in special schools affect negatively academic performance of learners with visual impairment?
3. What challenges do teachers face when teaching learners with visual impairments in special schools?
4. What measures did the school management put in place to address academic challenges of learners with visual impairments in special schools?

#### **1.5 Significance of the study**

First of all, this research will be significant to the researcher himself since it will be a partial fulfillment of the requirements for the award of Master of Education in Special Needs Education. The research data also may be important to the teachers teaching in special schools because data may help these teachers to adapt teaching resources to minimize factors which can hinder academic performance of learners with visual impairments. This research may contribute to the ministry of education in implementing of education for all. Also this research may contribute to the management of special schools of Rwanda. The study may guide policy makers on critical issues to consider when formulating or reviewing existing policies especially for learners with visual impairments. The results of this study may provide building blocks for the expansion of managing special education to more schools while ensuring that novice special schools do not re-invent the wheel.

## **1.6 Scope and limitation**

The research was conducted in two selected special schools; HVP Gatagara Rwamagana which is located in eastern province, Rwamagana district; and Educational Institute for Blind Children Kibeho which is located in southern province, Nyaruguru District. That study investigated factors that hinder academic performance of learners with visual impairments in Gatagara Rwamagana and Educational Institute for the Blind Children Kibeho. That research considered the period of four years from 2012 to 2015. The study was limited to analyze of data due to the fact that the respondents gave limited information owing to research gathered information only from Gatagara Rwamagana and Educational Institute for Blind Children Kibeho. That study had also limitation of having short period of time to collect data, Schools were far, lack of financial means and poor transport and change of weather.

## **1.7. Definition of key terms**

### **Performance**

Performance is defined as the observable or measurable behaviour of a creature in a particular state habitually experimental situation (Simpson & Weiner, 1989).

### **Academic performance**

Academic performance is the result of education — the extent to which a learner, educator or establishment has attained their academic objectives. This is generally calculated by tests however, there is no common conformity on how it is best tested or which aspects are most important — procedural knowledge such as skills or declarative knowledge such as facts (Annie, Howard & Mildred, 1996).

### **Impairment**

Impairment refers to any loss or damage to a part of the body either through accident, disease, and genetic factors of other causes. This leads to the loss or weakening of that part affected. (KISE&UNISE, 2002)

## **Visual impairment**

Limitations imposed by visual loss or reduction on a person's ability to interact with environment. It also includes children with total blindness and those with low vision (Mukarwego, 2015).

## **Disability**

This refers to any loss or reduction of functional ability (resulting from impairment) to perform an activity in the manner or within the range generally considered normal for a human being within the cultural context. It is also a limitation of opportunities that can prevent people who have impairments from taking part in the normal life of the community on an equal level with others. This may be physical or social barriers to full participation (KISE&UNISE, 2002).

## **Braille**

Braille is a tactile technique of reading and writing for people with visual impairment invented by Louis Braille (1809–1852), a visually impaired Frenchman. The Braille system uses six raised dots in a systematic arrangement with two columns of three dots, known as a Braille Cell. By agreement, the dots in the left column are numbered 1, 2 and 3 from top to bottom and the dots in the right column are numbered 4, 5 and 6 from top to bottom. (Simpson, 2013).

## **Special education**

Special education is the practice of educating learners with special educational needs in a way that addresses their individual differences and needs (Friend, 2008).

## **Special school**

A special school is a school catering for students who have special educational needs due to severe learning difficulties, physical disabilities or behavioural problems. Special schools should be particularly designed, staffed and resourced to provide appropriate special education for children with additional needs. Students attending special schools generally do not attend any classes in mainstream schools (Johnsen, 2001).

## **Resource room**

Resource room is a classroom where a special education programme can be delivered to learners with a disability and learning difficulty. It is for those learners who belong to a regular class but need some special instructions in an individualized or small group setting for a portion of the day. It is typically a large room in the main school building with lots of facilities for learners with special needs (Jones, 2013).

## **1.8 Conclusion**

This chapter provided an introduction to the study that discovered factors that hinder academic performance of learners with visual impairment in special schools. The researcher provided an orientation of the study to make readers aware of the problem under investigation. The statement of the problem addressed the justification of the researcher on the current study and what the study strives to achieve. The significance of the study was highlighted and paved a way for investigation on the research questions which acted as guidance for stating the objectives to be achieved. The scope and limitation of the study are stated; the key concepts from the study topic were defined and clarified to make the study more understandable to the readers.

## **CHAPTER TWO: LITERATURE REVIEW**

### **2.0 Introduction**

The literature review is the framework of the study and serves to organize all the literature relevant to the study (Merriam, 1998). This chapter reviewed the literature and analyzed it following different views of other researchers for in-depth understanding of the factors that hinder academic performance of learners with visual impairments in special schools. In this chapter the researcher focused on theoretical review, empirical review, theoretical framework, conceptual framework, challenges of learners with visual impairments, political, socio-cultural factors and economic factors, attitudes towards learners with learners with visual impairments, academic challenges of learners with visual impairment, lack of coordination in service provision, challenges that teachers face when teaching in special schools, opportunities for learners with special educational needs and conclusion.

### **2.1 Theoretical review**

The report of World Health Organization (WHO) estimates that 15.3% of the world population had moderate or severe disability according to the analysis of the Global Burden of Disease data for 2004 (WHO, 2011) and a considerable number among them need support services for their effective learning. Therefore the goal for every nation is to provide learning opportunities at every stage in life (UNESCO, 2006). The World Health Organization (2011a) estimates that worldwide, approximately 284 million people are visually impaired. Of these, 39 million are blind and 245 million have low vision. Moreover, according to the World Health Organization (2011a), some 90% of the world's visually impaired population lives in developing countries.

As other countries, government of Rwanda puts an effort in education of persons with disabilities. According to Rwandan policy on special education needs, EDPRS 1 and 2, ESSP, The Government of Rwanda focuses on improving the quality of education for learners with disabilities by ensuring appropriate infrastructures, curriculum content and methodology and provision of appropriate learning materials (Republic of Rwanda, 2007c; Republic of Rwanda, 2010; and Republic of Rwanda, 2013b).

The learners with disabilities have the right to access the same schools with those without disabilities unless when the nature and severity of disability needs cannot be achieved appropriately in general education schools (Rebell & Hughes, 1996). The Rwandan constitution, article 40 says that every person has the right to education. Thus the inclusive education is one way to eradicate discrimination among persons with disabilities (PWDs). Dada and Alant (2002) say that the inclusion is important, as it is effective in combating discriminatory attitudes and aim to build an inclusive society (Dada & Alant, 2002).

## **2.2 Empirical review**

The Salamanca Statement recognized the necessity and urgency of providing education for children, youth and adults with special educational needs within the regular education system (UNESCO, 1994).

The mission of the Ministry of Education is to transform the Rwandan inhabitants into skilled human capital for socio-economic development of the nation by ensuring equitable access to quality education focusing on combating illiteracy, promotion of science and technology, critical thinking and positive values (MINEDUC, 2010).

Many studies of Mikailova, Ismayilova, Karimova, Isazade, Behbudov, Agayev & Aliyeva, (2008); Najjingo (2009); Lewis (2009); Tesfye (2005); Suubi, (2012); Tirago, (2012); Engelbrecht, Oswald and Forlin (2006); Karangwa, Iyamuremye & Muhindakazi, (2013); Andrea and Farrent (2000) have been conducted and discussed the issue of challenges and opportunities for learners with special educational needs. Learners with visual impairments need an educational system that meets the individual needs of all learners, promotes independence, and is considered by the achievement of each person in the schools and its surroundings. Learners with visual impairments are a large amount to thrive in educational structure where suitable regulation and services made available in a full array of program options by qualified staff to address each learner's unique educational needs, as required by Public Law 101-476, The Individuals with Disabilities Education Act (IDEA).

Many learners with visual impairments in special schools come across the challenges in different levels of education owing to lack of specialists. The research done in Azerbaijan find that many schools do not have qualified specialists to provide the services needed by learners with visual impairments (Mikailova, Ismayilova, Karimova, Isazade, Behbudov, Agayev & Aliyeva, 2008). The school related factors are responsible to create challenges for learners with disabilities. According to Najjingo (2009), lack of or insufficient special instructional materials and equipment like Braille, Perkins cubes for arithmetic used by learners with visual impairments prevented access to all special education services. On the other hand researcher established that there is no special curriculum for learners with visual impairments.

The research done in Rwanda and in Ethiopia by Lewis (2009) shows that in both countries the number of learners with special educational needs (SEN) is not well known by lacking statistics relating to specifically the education of learners with visual impairments (Lewis, 2009). Barriers to presence, participation and learning may arise due to various reasons. They can be related to factors which are within the school (intrinsic) or outside the school (extrinsic).

Attitudes of teachers also play a big role in education of learners with visual impairment in special schools. Some teachers have positive attitudes while others have negative attitudes towards education of learners with visual impairments. A research done by Tesfye (2005) as cited by Bayene and Tizazu (2011) showed that special education teachers tend to have a negative attitude toward inclusion like their mainstream counterparts do. Teachers' attitudes were significantly less positive in Ghana, Philippines, Israel and Taiwan. The reason could probably be due to limited or nonexistent training to acquire special education competencies; the limited opportunities for special education in some of these countries, limited teaching experiences, limited experience with learners with special education needs and lack of laws requiring special education (Bayene and Tizazu, (2011). The American Psychological Association (2009) also says that the main challenges are lack of appropriate education and faculty training about disability issues and inexperience working with persons with disabilities; overall lack of awareness. Lack of access and lack of accommodations were reported.

‘Blind’ is a term used in most literature to refer to visually impaired people whose vision is reported as light perception or less (Warren, 1994). Thus, a person can be considered blind if s/he cannot perceive any light at all, or if s/he can perceive light but is unable to use his/her vision in any meaningful way, according to (Suubi, 2012): most blind people are able to perceive some light (Davis, 2003; Hodgson, Clunies-Ross & Hegarty, 1984). Indeed, Hollins (1989) and Scholl (1986) estimate that as many as ninety per cent of all those persons labelled as ‘blind’ have some light perception whereas only ten per cent are totally without vision. On the other hand, a person with low vision is one who has difficulty in accomplishing visual tasks, even with prescribed corrective lenses, but who can enhance his or her ability to accomplish these tasks with the use of compensatory visual strategies, low vision and other devices, and environmental modifications (Corn & Koenig, 1996).

To put it differently, a person with low vision experiences significantly greater difficulties than a person without visual impairment when performing tasks that require the use of sight. These difficulties may be slightly alleviated by the use of such devices as eyeglasses or contact lenses. Given the proper modifications to the environment, good use of his/her remaining vision, and other devices such as the spectacles mentioned above, a person with low vision can perform a variety of tasks using his/her vision (Suubi, 2012). This is especially true when one considers the fact that “20/20 (visual) acuity is not needed for visual function for most tasks or for orientation and mobility within most environments” (Heward & Orlansky, 1992, p. 349).

### **2.2.1 Challenges for visual impairments**

Most of persons with visual impairments are marginalized possibly due to the fact they might not have been catered for just as capable in social occurrence. Some of these folks may display other unsuitable anti-social behaviors, at the same time as rock moving their heads and hands strangely in space, and eye pock while sitting, walking and standing (Tirago, 2012, p. 5).

Cognition is fundamentally an issue of developing concepts. Therefore, various concepts are educated through visual ways; learners with visual impairments have involvedness to learn some concepts. Learners with visual impairments tend to be more passive and less inclined to go in search of new experiences; they increase a small number of learning skills than learners without

disabilities do. These learners may have inadequate orientation & mobility, and accordingly limited familiarity that should hinder achievement and dependency and a learned helplessness. One facet of psychological performance is that may influence these learners is self-worth. Self-worth is associated to the feeling of a person of self-esteem and value. It is a serious constituent for enduring contentment, triumph, and healthier life (Scott & Murry, 2001).

A lot of children with special needs comprise alterative tribulations since most of them become inward looking and fix most of time to their disabling condition. They are not like better adjusted children who are less likely to be furious or disappoint by what they perceive like undue treatment and tactless behavior. Better adjusted these ones are supplementary able to accept vague conditions where they are unconfident of others feedbacks to them (Tekle, 2004). The social and affective needs of learners with visual impairments are unique for the reason that the effects that loss of vision may have on the formation of their self-concept. (American Foundation for the Blind, 2003).

The above challenges affect the self-adjustment to people with visual impairments. Self-adjustment to visual impairments is explained like becoming aware of the boundaries allied with it and tolerant devoid of horror. With this view, Tefera (2002), said that didn't mean any simple approval of handicap, where success was set at low level by static and conventional intentions. That meant self-possession and developing the right concept of self-acceptance of one's self, which is crucial tool for modification and well-being, may be hampered.

### **2.2.2 Challenges in educational achievement**

Engelbrecht, Oswald and Forlin (2006) confirmed the barricade to learning and participation. In school for the persons with visual impairments caused by varied factors such as the rigid curriculum, socio-economic deprivation, communication problem, negative attitudes towards the persons with disabilities, inaccessible and unsafe built environment, inappropriate and inadequate support services, inadequate policies, non-recognition and the non-involvement of parents, insufficiently and improperly qualified teachers.

The policy and the society play a big role in education for learners with disabilities. There are many factors in the society which affect the effective learning for children with disabilities such as negative attitudes, culture, traditional attitudes and practices, ignorance... Members of the society think that the special education is better than the inclusive education because they believe that the burden caused by the disability of their children is reduced when the learner is kept in special schools. This has been confirmed by Albrecht and Verbrugge (2000), Charlton (2000) quoted by Karangwa, Iyamuremye and Muhindakazi (2013) where the discrimination against people with disabilities persist in all societies. The cultural attitudes and image of the disabled draw from the past, usually fossilized in myths, cultural beliefs, literature, legends, biography and history and even established and acceptable daily cultural practice (Karangwa, Iyamuremye & Muhindakazi, 2013).

Disabled learners experience discrimination and exclusion from the family, mainstream school and from all community. Strong cultural beliefs about disability as an ancestral punishment still predominate in Asian societies (World Bank, 2003). On the other hand, learners with disabilities suffer any kind of discrimination and can result in drop out. The parents also can be barriers to learn for those children. In developing countries, many families do not believe that children with disabilities should receive any education, and other families believe that children with disabilities are incapable of learning (Sagahutu, Kagwiza, Urimubenshi & Mostert-Wentzel, 2013).

Purdue (2009) gave details that the challenge regarding their educational attainment was brought about by prohibiting, the obstacles that entered the way of full acceptance and contribution in education proceedings. These might include socio-cultural barriers just as physical and material barriers, for instance poor building design, insufficient finances and lack of adequate awareness about surrounding environment. These also might cause discrimination towards some persons and their associations to exist.

In addition UNESCO (2007), sophisticated on the incapability of the curriculum to cater for the needs of these learners, insufficient preparation of educators and education leaders, rigid and poor teaching methods and inadequate assessment procedures. Consequently, schools and

educators found it thorny to accommodate learners with special needs and they struggle to make them to adapt to the school, in lieu of adapting schools to the needs of the learners.

On the other side, the United States Agency for International Development (USAID) Ethiopia (2011-2015) explained that dishonor often leads to a refusal of access to services like education, employment and health care. Immeasurable reasons settle on how visual impairments affect a child's learning experience. Age of onset and harshness of vision loss and presence of different disabilities are some of the factors that make each child's situation unique. The causes of visual impairment and overall functioning level of a learner also determine how the visual impairment affects a learner's growth. Generally, visual impairments have cognitive, academic, social emotional and behavioral effects.

### **2.2.3 Challenges in adjustment to special needs**

Learners with low vision experience environmental and social limitations like lack of knowledge about diversity. Tefera (2002) affirmed that these limitations negatively affect the socio emotional development of learners with visual impairment. Most of them are the environment, attitude of others and lack of acceptance by others. The environment is a feature that notably affects the psychological functioning of learners with visual impairments. The development is affected by diverse categories of environment just as educational placement. Throughout the formative years school is the main place for the social experience of these learners that puts a immense treaty of power on their social development. It is, then, essential to scrutinize school arrangements focused on how well they improve emotional and social development.

Allen (2009) cited by Kebede (2015), uttered an idea that the better the vision loss, the superior the stoppages in the reaching, crawling and walking. A learner with problems of vision does not build up the capacity to concentrate sound and move towards it until the end of the first year. Motor development is additional delayed by the learner's inability to learn skills correlated to judging distance, direction, body position and object position in space. The learners frequently

develop outlandish behavior of walking and positioning themselves because they have no visual reference points or models.

Andrea and Farrent (2000) stated that learners with low vision should be familiar with various uninterested consequences akin to feeling like an outsider owing to they cannot contribute fully in actions, feel less than competent because they do not appreciate visual concepts fully and feel uncomfortable because they drop things or bump into objects. All of these consequences can have the effects of lowering their confidence. Constrained movement within the environment, predominantly for children with congenital visual impairment, can affect learner's development. Learners with visual impairment habitually have restricted relations with their environment; less reason to discover interesting objects and as a result miss chance to study (The Gale Group, 2009).

Environment can be a barrier to school attendance among learners with visual impairments in mobility an orientation. Rwanda is a country of mountains (geographical access) and because of those mountains many learners with visual impairments are deprived of the opportunities to attend school. By direct observation, infrastructures (buildings and road) are not user friendly for learners with visual impairments, school buildings across the country are not adequately designed and equipped to accommodate the learners with visual impairments. The distance also can be one of the barriers to learn for these learners. This has been highlighted in 2007 Rwandan special needs education policy where it says that the long distance travel to school creates obstacles to regular attendance for learners with physical disability and visual impairment that limit their mobility as well as for school infrastructure which are inaccessible (Republic of Rwanda, 2007c).

Shapiro, Moffett, Lieberman and Dummer (2005) clarified how the acuity of capability, or the ways in which an individual assumes about himself or herself, pressure the beginning and mastery attempt in various domains of feat together with social acceptance and physical look. Learners, who have complexity in performing sport and physical activity skills, regularly have lower self-perceptions. These poor self-perceptions are likely to lead to a decrease in self-

reliance in movement and habitually enlarge beyond the athletic domain, resulting in adverse psychological and social consequences.

#### **2.2.4 Political, socio-cultural factors and economic factors**

In Rwanda, the policy of special education has been installed in 2007 (Republic of Rwanda, 2007c) and we assume that it has not been understood by all stakeholders (politician, schools, students with disabilities ...) considering the observations seen in our daily life like buildings, road infrastructure, not adapted curriculum according to categories of learners with special educational needs continue to discriminate learners with Special Educational Needs. For example, the Rwandan Special Need Education Policy of 2007 had highlighted some strategies such as “reduce the distance to school and ensure full physical access to school facilities for all learners with disabilities” or “modify or adapt curriculum, methodologies and materials for learners with special needs education” (Republic of Rwanda, 2007c) but even for the moment, those objectives are not considered all the time it needed.

The economy of any country determines the quality of education and the poverty is one factor which affects the effective learning of learners with disabilities. In United States of America, the commissioner Pascal of the National Center for Education Statistics stated that “high quality education, by enhancing worker productivity, is a key contributor to the economic success of workers and the population as a whole” (Decker & Rollefson, 1997). This may be explained that materials used by learners with disabilities are expensive and the poverty experienced by families affects the extent of access, support and quality of education for learners with disabilities.

According to the Third Integrated Household Living Conditions Survey report in Rwanda, poverty is estimated to be 44.9% nationally, with 22.1% poor in urban areas and 48.7% poor in rural areas (National Institute of Statistics of Rwanda, 2012). This is the handicap for poor families to pay all the necessary for the education of their children and thus this will be more difficult for families having children with disabilities because the cost of their education is high than other children without any disability.

## **2.2.5 Attitudes towards learners with visual impairments**

### **2.2.5.1 Attitude of teachers**

The teacher is the principal educationalist of the learner with visual impairment who is enrolled in his/her classroom. It is the teacher's liability to educate all the learners in the classroom together with the blind or child with low vision. Smith and Polloway (2008) admitted that teachers working with learners with visual impairments need to understand the nature of a particular learner's vision quandary to be able to prefer appropriate accommodative tactics. These teachers need necessary information interconnected to fundamental concepts of vision, visual impairment signs on possible visual problem, typical characteristics of learners with visual impairment and specific accommodative methods for meeting these learners' needs.

Some studies authenticated that positive teacher's feelings towards special education were influenced by a various factors like the established policies on special education, school philosophy, available resources, and level of support in catering for the needs of learners with visual impairments (Hsien, 2007).

In quite a few, studies it is also pointed out that those educators were repeatedly not prepared to meet the needs of learners with significant disabilities. There are ordinary concerns like teachers' time taken away from the rest of the learners, class size, lack of training and resource material is not given. The content validity is not assessed by teachers and specialists in the field of special needs education (Deiner, 2010). Douglas (1996) also gave details that one of the most crucial factors affecting teachers' thoughts towards special needs education is the kind and harshness of disabilities. Research has exposed that irrespective of teaching experience, severity of disability shows an inverse relationship with positive attitudes, if such perceptions of severity increase teachers' positive attitudes decreases.

Ocloo and Subbey (2008) explained, in addition, that a large amount of the head teachers rebuff the admission of learners with visual impairments into their schools for the reason that these learners with visual impairments will lower the academic standard of the school. Furthermore, many educators decline the placement of the learners with disabilities as well as learners with

visual impairments in their classes with the view that this may be unfulfilling and burdensome. Negative school experiences of learners with visual impairment have been coupled to teachers' low level of knowledge of disabilities and intervention technique and insufficient special education support (Scott & Murry, 2001).

When learners come in the school, their self-concept is already considerably formed, chiefly through the manipulation of family. The collision of the school environment cannot be overlooked. It is a combination of school factors, family and innate intelligence that appears to be an essential ingredient to increasing learners' self-esteem during the academic years (Dustin, 2012, p.451-457) cited by Kebede (2015). Shapiro, Moffett, Lieberman and Dummer(2005) reported that research results designated that teacher support and encouragement of learner's independence were linked with higher learner self-esteem. The amount of teachers organize learners was inversely connected with learner's academic self-esteem.

#### **2.2.5.2 Attitude of parents**

NaiKwai-Lo (2007) elucidated that parents of children with special needs thought that inclusive education can bring both the pleasure of increased options and impenetrability of heterogeneous learning. A lot of parents, who either hope to progress their children's learning standards in mainstream schools or want to avoid the humiliation of enrolling them in special schools, prefer to send them to mainstream schools when they are given the choice.

The thoughts of parents are well acknowledged to manipulate the self-concept of visually impaired children. In turn, the self-concept of the child will determine his/her school performance. Hence, counseling has to be a twin process of counseling the parents and encouraging the visually impaired learners to perform better. Gearheart (2003) draws attention to the fact that research has pointed towards parental reactions such as over protection, which is the phenomenon most generally seen in affluent parents. The parent experiences guilt and shame and does everything for the child thus destroying his/her initiative and autonomy. Brothers and sisters may have negative reactions. They may not play with the child, read to him/her or take him/her

out. All this gives rise to open and distinct resentment, which may sporadically explode into outburst of anger or protest.

On the other side Tanzila (2012) highlighted that parent participation is very crucial to uphold a productive educational program for blind and visually impaired children. All specialists working with disabled persons are recommended to establish a good parent- professional partnership for the wellbeing of the learners. Parents should be involved in every stage of the program like planning individualized educational programs for their children in homes and evaluating development of their children. Most studies demonstrated the understandable relationship between the qualities of parent-child to harness social- intellectual development. Being together implies not only physical closeness but social, emotional contact and transmission, directed perception of meaning in the form of concepts, language and thoughts. It means understanding of the world around shared procedures to analyze and solve problems as well as the perspective and communication of experiences with relation to the other people.

A main question in trying to assess vision is that learners with visual impairment have not thought what they are supposed to be seeing; in other words, they truly don't know that what they see is imperfect or different from what others are seeing. Teachers in early childhood and parents usually are the primary to suspect possible vision troubles in young children.

### **2.2.5.3 Attitude of learners with visual impairments towards themselves**

The National Federation of the Blind [NFB], (1999) cited by Kebede (2015) indicated that thoughts towards individuals have disabilities generally tend not to be too positive. Negative attitudes, awareness and prejudice are some of the factors that cause poor public policies. These mostly influence a variety of rehabilitation and job training persons with visual impairments receive.

Low vision and blindness have a considerable collision on the physical and mental well-being of the affected individual. People with visual impairment are less able to achieve activities of daily living, less mobile, more isolated, suffer higher rates of depression, and therefore have a reduced

largely quality of life when these learners were compared to their sighted counterparts. In addition, patients with visual impairments have higher mortality rates, and are more prone to accidents and falls. Just as effect, elderly persons with low vision are more prone to injuries than their sighted counterparts. For instance, low vision is a well-documented risk factor for hip fractures in the elderly resulting from falls. Owing to those consequences and lack of encouragement they feel that they are useless in diverse activities (Rockville, 2004) cited by Kebede (2015).

### **2.2.6 Academic challenges of learners with visual impairment**

Several factors determine how visual impairments affect a child's learning experience. Age of onset and severity of vision loss, as well as presence of multiple disabilities are some of the factors that affect their learning. Children with visual impairments frequently have restricted connections with their environments, less reason to discover exciting objects, and as a result miss opportunities to learn.

#### **2.2.6.1 Reading and writing difficulties**

Teaching learners with visual impairments needs an open heart and an excellent capacity to realize and communicate. Teachers require assorted teaching techniques to educate the category of reading learner with visual impairment must learn. Learning to read a book, for instance, demands a dissimilar form of instruction than learning math. In general, visually impaired learners are able to read and use large print versions of text books. They can't read normal size alphabets in the text book or in a manual. Most learners with sight problem show excessive head movements while looking at pictures or reading. While reading and writing usually they lose place. They have a problem with writing in a straight line and they write in a zigzag manner (Teaching Students with Special Needs in Inclusive setting, 2012), cited by Kebede (2015).

The bulk of visually impaired learners will oblige slightly more time than other learners to work some activities. It will regularly take them longer to entirely suggest what they are seeing or comprehend what is being talked about. Various visually impaired learners gain largely image from fragments they perceive while sighted learners gain this insight "at a glance". Additionally, they will frequently be requisite to utilize specialized equipment (telescope, magnifiers text enlarger), which is more time-consuming. Partially sighted learners usually write using the

standard graphic code. Corrective eye wear or lenses can at times offer adequate support. Reading printed characters is also made possible through optical instruments, such as a hand-held or eye-wear-mounted telescope, magnifier and closed circuit television (CCTV) magnifiers. It will be communicated, but, that in many cases, their pace of reading will be slower (Savard, 2008), cited by Kebede (2015).

The same as for writing, partially sighted learners will rarely utilize paper with larger grid lines, markers and large-tipped pens. The posture required to read and write with partial sight may occasionally lead to physical uneasiness. The use of a book holder (slanted stand) and extra lighting can be useful (Savard, 2008). Learners with low vision and cortical visual impairments may want change in the print size and type face. Some learners may use a combination of media-visual, tactile, audio or electronic (e-text) to improve or support the primary reading mode (Wiazowski, 2009). Bosmall, Gomple Vervlned and Van bon (2006) in citation of Smith and Polloway (2008) pointed out that although visually impaired learners learn likewise to their sighted peers their incapacity to procedure visual information efficiently outcome in their needing definite curricular and instructional alteration. For learners with low vision, these alterations easily imply swell printed materials to sufficient size so that the learner can see them. For learners with little vision the assistances have to be wide.

Most of equipment established in universal education classrooms ought to create complicatedness for visually impaired learners. For instance, the size and contrast of printed materials that have the authentic effect on learners with visual impairments. Special material and equipment are able to improve the education of learners with visual impairments. Most of materials, for instance, large printed materials are improper for all and have to be measured in light of personal needs (Smith & Polloway2008). According to the United States of American National Centre for Individuals with Disabilities, it is crucial for educational institutions to take in charge the need of persons with visual impairments. Visually impaired learners most of time cope with difficulties in the classroom in addition to reaching in the classroom. For example, the learners with low are not able to read a text on a chalkboard and they could miss the funny faces or expressions that often accompany a lively classroom discussion (Candido, 2008).

### **2.2.6.2 Inaccessibility of teaching and learning materials**

Inclusion has its own disputes, which comprise of lack of services for early identification, poorly trained teachers and inadequate allotment of resources. Teachers are not trained to accommodate learners with difficulties fittingly, support and supplemental materials are not available and as well, learners with difficulty have asked for going back to segregated systems owing to the instructors were not prepared to meet their needs appropriately (USAID/ Ethiopia, 2011-2015).

Many studies have confirmed that a great deal of the learning that happens in classrooms wide world is superficial learning. Facts rules and formulas are memorized however, repeatedly; this information is not linked in a coherent framework that would let learners to make sense of it and to utilize it in innovative situations only to obtain facts (Alonge, 2005).

According to Garzia and Ralph (2008), visual defect, like a restriction in the visual field, can have a considerable collision on reading performance. Eye damage and double vision resulting from convergence insufficiency can also be a significant handicap to learning. There are supplementary delicate visual defects that influence learning, affecting many people to diverse degrees. Vision is a full process and its relationships to reading and learning are complex. Each area of visual function must be measured in the evaluation of persons who are skilled reading or other learning troubles. Similarly, treatment programs for learning-related vision problems must be designed individually to meet each person's unique needs.

### **2.2.6.3 Lack of assistive technology**

There are numerous assistive technology devices that can assist learners with visual impairments, ranging from very simple to very complex. Candido (2008) express the opinion that the current research shows that they have come a long way in using technology and particularly the internet for education of learners with visual impairments. As outlined above, online classes continue to grow in number and variety. It is also true that technology has enhanced the lives of learners with visual impairments. It was discovered that people with disability such as a visual impairment can be served in effective ways by enrolling in online classes, yet online classes are not all designed in a way that best suits this particular group of people. The audience of adult learners with

disabilities, particularly people with visual impairments, could perhaps be an untapped audience for schools.

While access to the internet is comparatively simple for learners with sight, numerous learners with visual impairment can get intricacy if integrated without special support (Polloway 2008). Barraga (1983) cited in Kumsa (2006) makes clear that the environment can be made accessible for the visually impaired learners in three ways, by increasing the size of the material itself, by bringing the image on the material closest to the eye and by using a device or protection to magnify the size of the material. Particular materials and equipment develop the education of visually impaired learners. But according to the verbal report of school principal, (personal communication, September 2012) who is vice principal of Ligaba Beyene Primary Integrated School, says that “these materials which can be used by learners with low vision, as magnifying lenses for distant and near vision, Closed Circuit Television (CCTV), adaptable reading tables and even the facility of bright light, according to the need of learners, are not available. For the legally learners with visual impairment, Braille reading and writing materials just as slate and stylus, Braille paper, thermoforms, white canes and Perkins Brailier, embossers are not appropriately available. Specialized lighting-lamp and lights with different categories of illumination may enhance the visibility of the working surface, material positioning devices as page holder or book stands and slant boards which can enable better positioning of material to decrease the distance, angle or glare and others are needed in the above-mentioned integrated primary school.

There are also varieties of low vision devices that learners with low vision are required to use to learn visually. There are also optical and non-optical services enabling them to read and write print visually using their functional vision (Government of New Found Land and Labrador, 2001).

#### **2.2.6.4 Factors affecting learners’ success**

The academic factors that are acknowledged in the literature as affecting learners’ achievement and maintenance as predetermined by Cleyle and Phipostt, (2011) comprise of learners’ academic readiness, lack of support and encouragement of the family, their past and present

academic success and failures, their understanding of their institution's and teachers' expectations and the connection between student expectations and what they experience.

It is significant that all academic evaluation be the same for all learners, whether or not they have impairment. If a learner with visual impairment fails an exam, in spite of the accomplishment of reasonable accommodations, it stands to reason that this learner did not sufficiently master the material to pass (Savard, 2008). Teachers may use variety of textures, model, shapes, foods, ingredients, etcetera to substitute visual material. It is suggested that a combination of simple self-made material and ready-made commercially produced teaching aids should be exploited (Wiazowski, 2009).

### **2.2.7 Lack of coordination in service provision**

Education is seen as the collective responsibility of the home and the school. Parents should be incorporated just as active members of the helping team like early in the process as possible. Educational main concern recognized by family members should be mainly took into consideration. To develop a high quality visual learning environment, each school's community members, teachers, support staff, parents and learners with disability have to collaborate in a consistent, coordinated and corporative manner. Kumsa (2006) also affirmed that it is the responsibility of the whole school and community to act as a unified team to decrease visual ability problems and to maximize learner's participation. Studies conducted by Sharma and Furlonger (2010) have shown that within the field of mentoring work together with colleagues and administrative support can increase new general education teacher commitment. In addition, collaboration among common and special teachers has been found to be the only factors that relate to teachers' positive response towards inclusion. In the many years ago it has been shown that, educational policies tend to support the integration of children with disability into ordinary schools. Even if this idea is received by some literatures there are some other evidences that show that the benefits to integration may not be as immense as expected.

Earleharma, Sharma and Loreman (2009) cited by Kebede (2015) have found that a growing number of family support specialists and teachers teaching in the cities are moving away from the terminology of "parent involvement". This is the reason why most of parents and families

continue to be isolated and are not getting sufficient assistances throughout care, education and training for their learners with difficulties. Persons with disabilities are still side-lined in mainstreaming decision making in most societies. Quality education is promoted by collaboration between educators and families. The management of all concern members, as well as family members, helps to assure a shared focus on learners' success. An appropriate service provision should be a collaborative process involving the child, the parent and relevant service providers from the departments of education, health, and community services. Human Resources and Employment, Justice and other relevant agencies should also play a big role.

The preparation of educators who teach in ordinary school has experienced main pedagogical shift in recent years. The establishments are promptly needed to make sure that pre-service teachers are able to cater for the needs of an increasing range of varied learners. The teachers of learners with visual impairment must be able to provide support and collaborate with family members and other members of the instructional team who work with learners. They must be able to convey professional opinions in a diplomatic, collaborative manner in order to ensure that appropriate programmes are recommended for the learner with a visual impairment (Hamzeh, 2008) cited by Kebede (2015).

Many educational debates on special education focuses on the efficiency of practical matters, educational organization and practice, like the curriculum, teaching methods and attitudes in the school or individual systems, without considering the broader dimension to the enclosure which exceeds these slight school or individual based considerations (Engelbrecht, 2006). Comprehensive low vision services can seldom be obtainable by a single service giver. It is more often a team approach which requires the skills of appropriately trained ophthalmologists, optometrists, ophthalmic nurses and rehabilitation workers (Truitt & Suvak, 2001).

### **2.2.8 Challenges that teachers face when teaching in special schools**

The research done by Ann (2013) showed that teachers teaching in special schools face many challenges. These highlighted by special education teachers' comments concerned the responsibilities of their job where scheduling is a challenge-*“getting to see all the kids in the time you needs to see them so you are not pulling kids from the things they need to be there for in*

*the regular classroom*”. These teachers expressed frustration with the lack of support provided by general education teachers and co-teaching it is not easy. They commented on federally imposed responsibilities: paperwork, state assessments, and meeting required benchmarks. They also emphasized that they lack time or staff to adequately perform the duties of the special education position and meet students’ needs. They therefore, explained that during statewide assessment they listed as failing school because of the learners with disabilities.

Rigid curriculum and lack of appropriate teaching methodology also can be a challenge of learner with disabilities. Lack of access to appropriate materials and equipment for special educational need constitutes also a significant barrier. For example, very few blind children have access to Braille textbooks, even in special schools (Oforiwa, 2013). This supported by research don by Karangwa (2013) that although Visually Impaired Students can read by using tactile methods (Braille), this approach becomes useless when it comes to graphic representation of mathematical and scientific concepts, practical experiments, colors, symbols, graphs, drawings and others. The study noted with surprise too that HVP Gatagara receives regularly school books from the Rwanda Education Board meant for sighted learners, despite the constant reminder by its administration that these are of no use to their non-sighted learners, and their demands for tactile alternatives are reportedly ignored. Besides, the school was not guided by the national curriculum because there is none meant exclusively for learners with special educational needs, let alone the visually impaired. However, even if there are challenges, there are also opportunities which may help to achieve and maintain an acceptable level of learning for persons with disabilities as it will be discussed in the following paragraphs.

### **2.2.9 Opportunities for learners with special educational needs**

Although there are many factors contributing to inhibit the effective learning of learners with disabilities including learners with visual impairments, there are also some opportunities. Almost all countries have been elaborated the policies and laws for their people without any discrimination. The governments have the responsibility to provide the necessary policies which guide the education of persons with disabilities including learners with visual impairments. This is the case for Rwanda where in 2007, the special needs education policy have been established (Republic of Rwanda, 2007c). In all level of education, the learner with visual impairment is

protected against discrimination and provided an equal opportunity. Federal laws prohibit discrimination against learners with disabilities and seek to provide them with appropriate services and supports. Providing more educational opportunities for learners with disabilities began with elementary and secondary education (Wolanin, 2004). In Rwanda, the government is doing its possible to enhancing the quality of education for learners with special educational needs. Several policy statements were set out, including the National Policy on Education, the law No 1/2007 of 20/01/2007 relating to the protection of persons with disabilities (PWDs) in general in the official gazette of Republic of Rwanda, the EDPRS 1 and 2; Special Needs and Inclusive Education Policy draft of 2013 and others, all of which place PWD as having the same rights as other person without any disability. The article 8 of the law cited above relating to the protection of PWD in general says that a "disabled persons shall have the right to legal representation like any other person in courts of law as determined by law" (Republic of Rwanda, 2007b).

The Children with visual impairments have also opportunities to the rehabilitation services. Persons with visual impairments are in association which helps them to disclose their disabilities and to be integrated in the society; in Rwanda there are Rwanda Union of the Blind (URB) and National Council of Persons with Disabilities (NCPD). Through the Disabled People Organization (DPO), some challenges are removed and PWD are considered as the normal persons.

It is known that Rwanda is one of the fastest growing African countries in ICT (Gathege and Moraa, 2013), thus ICT is another opportunity for learners with disabilities in Rwanda. In 2006, UNESCO IITE stated that: *"ICT application is very important as it plays an essential role in providing high quality education for students with disabilities. ICTs have been introduced into the teaching learning process in order to improve quality, support curricular changes and new learning experiences"* (p. 27-28). The same work goes to argue that specific applications of ICTs are diverse and varied and may be grouped in categories such compensation uses, didactic uses and communication uses (UNESCO IITE, 2006).

### **2.3 Theoretical framework**

This research was based on Social exclusion theory. According to Silver (2007) Social exclusion is a multidimensional process of progressive social rupture, detaching groups and individuals from social relations and institutions and preventing them from full participation in the normal, normatively prescribed activities of the society in which they live. This theory is thus helpful to know that if there may be the integration the disabled learners with disabilities including learners with visual impairment in special schools. Social exclusion results in a social isolation and thus become a barrier in special schools for learners with visual impairments.

“Social exclusion is about the inability of our society to keep all groups and individuals within reach of what we expect as a society to realize their full potential” (Silver, 1995). To be "excluded from society" can take various relative senses but social exclusion is usually defined as more than a simple economic phenomenon: it also has consequences on the social, symbolic field. Social exclusion could be in the form of excluding from education, where a central issue in placing a learner with a visual impairment is whether the necessary specialized training is best delivered in a special school. Students with visual impairments often need to learn special skills such as how to use special computer applications and any other materials to improve learners' academic performance.

There is no universally approved – upon social exclusion, even if it is a generally acknowledged phenomenon. States, establishments, academics and international organizations all saw social exclusion in a different ways, yielding on a wealthy, however sometimes there is a confusing tapestry of perspectives. Nevertheless along with the intellectual discussions about the explanation of exclusion, there is some degree of consensus about its key factors and characteristics. There is wide accord that the exclusion is multi dimensional, as well as deprivation of economic, social, gender, cultural and political rights, making exclusion a much broader concept than material poverty. Beyond these wide doctrines, there is significantly less argument concerning to the dimension of exclusion. One of them is relativity – Exclusion can only be judged by comparing the circumstances of some individuals, groups and communities relative to others at a given place and time. With this regards, learners with visual impairments placed in special schools due to the fact that Special education is the practice of educating

students with special educational needs in a way that addresses their individual differences and needs. Ideally, this process involves the individually planned and systematically monitored arrangement of teaching procedures, adapted equipment and materials, and accessible settings. In most developed countries, educators modify teaching methods and environments so that the maximum number of learners is served in general education environments. Therefore, special education in developed countries is often regarded as a service rather than a place. Integration can reduce social stigmas and improve academic achievement for many learners.

Most theorists maintain that social exclusion is a process, not only the condition reflecting the result of that procedure. However few, if any, laypeople ever reach the eventual finish of the estimated trajectory. There are no formal 'exclusion thresholds' to cross, as exist for poor quality. Rather, while, citizens are positioned on a multidimensional range and may be moving towards enclosure in one or another sense, or towards a state of comprehensive, collective social break. This process has been labelled social 'disaffiliation' or 'disqualification', among other terms, and encompasses degradation as well as social isolation.

Social exclusion is typically explained as a dynamic process of progressive multidimensional rupturing of the 'social bond' at the individual and collective levels. By social bond, it means the social relations, institutions, and imagined identities of belonging constituting social cohesion, integration, or solidarity. Social exclusion prevent full involvement in the normatively prearranged activities of a such society and refuses right to get information, sociability, resources, , recognition and individuality, eroding self-esteem and decreasing capabilities to attain individual targets.

As a process, it is innately *dynamic*, taking temporal matters into account. At any one time, natives may be placed on a multidimensional scale, moving towards inclusion in one or another aspect, or towards a state of comprehensive, cumulative social shatter. The latter process has been labelled social 'disaffiliation' (Bahr 1973; Castel 1995) or 'disqualification' (Paugam, 1991) among other terms.

Yet few if any people ever reach the ultimate end of the imagined trajectory of absolute social

disengagement. Despite some methodological tries to compute cumulative aspects of disadvantage, no country or scholar has recognized a formal ‘exclusion thresholds’, like the poverty line. This is because few if any human beings can live wholly exterior of society (Balibar, 1992). To be sure, at any one moment, analyst can show folks or clusters that are more or less in an excluded situation reflecting the result of a process.

Social exclusion is a structural process of social isolation, of stripping away multiple dimensions of social involvement. Were such disaffiliation voluntary, yet, it would be difficult to name it ‘exclusion’. Somewhat, it requires vigorous liaison between excluders and the excluded. Excluders are *agents* who use specific *mechanisms* to push others out and disallow right to resources and relatives. Though it appears just as the expelled want to withdraw from community, they may be doing so in response to poor handling. Exclusion entails the loss of status, lack of recognition, and often, humiliation. The shame of the socially excluded is essential in the accounts of the downwardly mobile (Balibar, 1992).

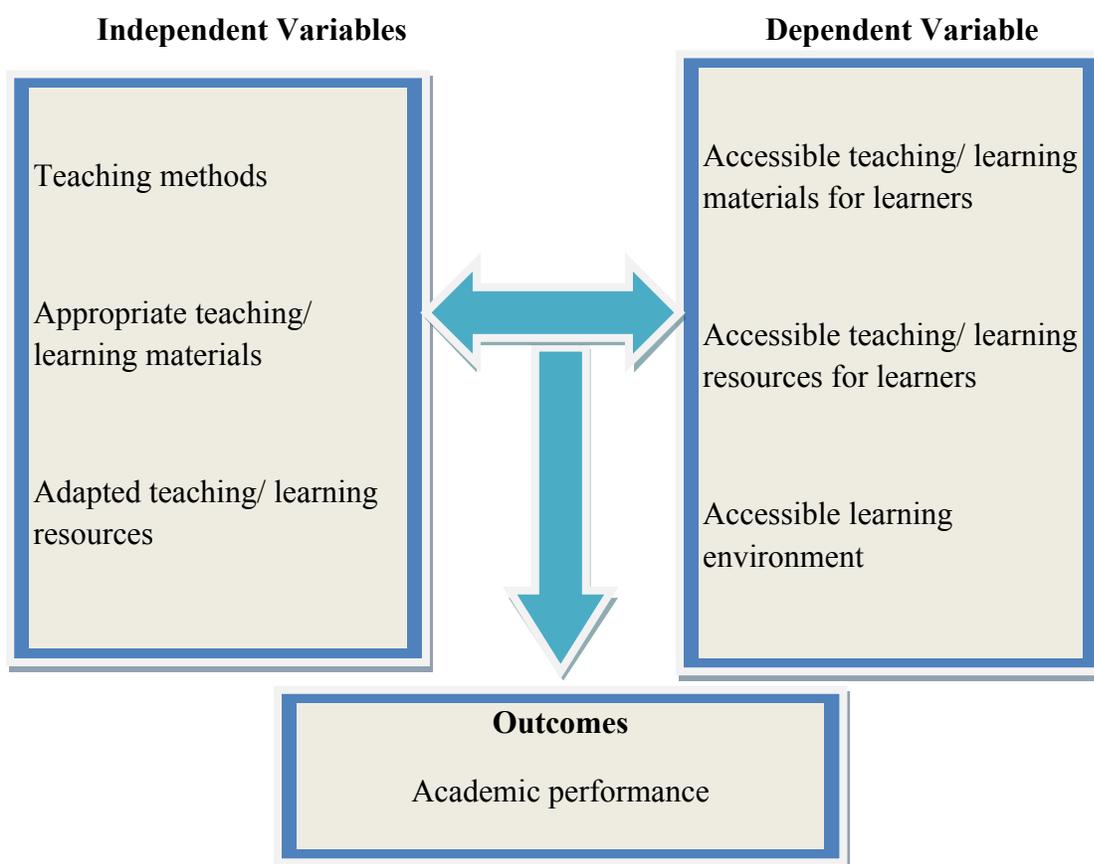
This study, thus, used the Social exclusion theory for it supports the ideas of education of learners with visual impairments in special schools and encourages the removal of barriers that hinder the learners with visual impairments from accessing quality education. The academic performance of learners with visual impairments in Gatagara Rwamagana and Educational Institute for Blind Children Kibeho may be greatly affected by barriers highlighted in social exclusion theory and unless these barriers are removed, individual’s academic performance of learners with visual impairments may not be achieved.

#### **2.4. Conceptual framework**

Education is a key to poverty reduction in all countries. The policy on inclusive education of Rwanda is education for all by the year 2015 (Republic of Rwanda, 2008). The Rwandan policy on higher education says that “higher education is primary tool of the development”. Rwanda intends to build a strong vibrant higher education system that will be internationally competitive, meet the demands of Rwandan and regional economy for skilled and educated workers, and deliver research, innovation, and knowledge transfer to support social and economic development. In addition, the same policy highlights the importance of higher education in

transformation of the society and economy of the country (Republic of Rwanda, 2008). Thus, all children must have equal opportunity to the higher education without any discrimination. However, students with different disabilities encounter many problems in their learning in lower levels which private them to arrive in higher level. There are many barriers which affect effective learning for learners with disabilities in primary and secondary schools and this may be the case in higher learning institutions. Those barriers may be intrinsic or extrinsic of the school; those barriers that can affect effective learning can be political and social factors, environment factors, school related factors and economics factors. Although in Rwanda, they may be those factors as creating barriers or challenges, they may be also opportunities for learners with disabilities.

**Figure 1 Interaction of variables on factors hinder academic performance of learners with visual impairments**



## **2.5 Conclusion**

This chapter discusses the literature review related to challenges and opportunities faced by learners with visual impairments. It has reviewed theoretical review, conceptual framework and views from different researchers on factors that hinder academic performance of learners with visual impairments. In this chapter it has been highlighted that children with visual impairments often have limitations of interacting with their environments, less reason to explore interesting objects, and as a result missed opportunities to learn. The main challenges to learning are lack of knowledge about differences, rigid and poor teaching methods, inconvenient learning environment, with lack of identification process, and inadequate assessment procedures. Learners with visual impairments are limited in interaction with the physical and social environment. They have difficulty in moving from place to place in familiar and unfamiliar environment especially in a dim light. This can considerably affect social communication and educational achievement of learners with visual impairments.

## **CHAPTER THREE: RESEARCH METHODOLOGY**

### **3.0 Introduction**

Research methodology is a system of models, procedures, and techniques used to find out the results of the research (Ranneerselvam, 2006). In this chapter, the researcher analyses the research design, study setting, population, sampling strategies and sample size, research instruments, data collection techniques, data analysis procedures, position of the researcher, validity and reliability, ethical issues, and the conclusion of this chapter.

### **3.1 Research design**

Grinnell and Williams (1990) said that research design is a total plan they use to aid them in answering their research questions. They also put forward that as a part of their plan; they decide what the research questions should be, what data is required to answer them, where data is to be obtained and exactly what the best way to gather the data is.

The study adopted a descriptive survey research design. A descriptive survey design is a method of collecting information by interviewing or administering a questionnaire to a sample of individuals (Orodho, 2004).

A descriptive survey design was selected because the researcher wanted to describe factors that hinder academic performance of learners with visual impairments in two selected special schools. Descriptive statistics and themes were used to analyze data that were collected from the selected sample through questionnaires, interviews, and Observation Checklist. This is because, both methods supplement each other in that qualitative methods provide the in-depth explanations while quantitative methods provides the hard data needed to meet required objectives.

#### **3.1.1 Study setting**

The research was conducted in two special schools; HVP Gatagara Rwamagana which is located in eastern province, Rwamagana District, and Educational Institute for Blind Children Kibeho which is located in southern province, Nyaruguru District. These two special schools are among special schools here in Rwanda have mission of teaching learners with visual impairments.

Those special schools were chosen due to the facts that these schools have learners with visual impairment whose enough knowledge that needed by the researcher.

### 3.1.2 The population

In every research there is target population from which information related to the phenomena under study are gathered. Polit and Hungler (1999) refer to the population as an aggregate or totality of all the objects, subjects or members that conform to a set of specifications. This research was made 380 population including 171 learners with visual impairment, 27 teachers and 2 administrators of HVP Gatagara Rwamagana and 160 learners with visual impairment, 18 teachers and 2 administrators of Educational Institute for Blind Children Kibeho in the academic year 2017.

**Table 1: The target population of the study, academic year 2017**

Schools	Learners with visual impairments	Teachers	Administrators (head teachers and Production Room/ Resource Room Officers )	Total
HVP Gatagara Rwamagana	171	27	2	201
Educational Institute for Blind Children Kibeho	160	18	2	180
The total target population	331	45	4	380

Source: Primary data (July, 2017)

In the Table 1 above, depicts how the respondents are represented in two special schools. These schools are HVP Gatagara Rwamagana and Educational Institute for Blind Children Kibeho. All of the schools have learners with visual impairments.

### 3.1.3 Sampling strategies and sample size

This section discusses different sampling techniques that were used in the study to get the sample. It also discusses the size of the sample that was selected for the study and the reason for the selection.

#### 3.1.3.1 Sampling strategies

The districts of Rwamagana and Nyaruguru were purposively selected because they have special schools for learners with visual impairments. Teachers and administrators were also purposively selected because they are expected to have relevant information on factors that hinder academic performance of learners with visual impairments and the services offered to them.

#### 3.1.3.2 Sample Size

The sample for this study comprised of 4 administrators who were all selected because they were few in number. 45 teachers also were all selected because they were few in number. The sample size composed of 146 learners with visual impairments. Hence, the total sample size was 195 respondents from HVP Gatagara of Rwamagana and Educational Institute for Blind Children Kibeho of Nyaruguru districts. The selection of the above sample size was referred to the researcher (Cottrell and Mckenzie, 2011) who said that there is no rule for sample size in qualitative inquiry that when determining the sample size for qualitative studies, the researcher has to balance the need for appropriate data with the resources necessary to collect it. In this research the total sample of 195 respondents was manageable and a representative sample depending on the type of research and available finance.

**Table 2. Sampling table**

Schools	Learners with visual impairments	Teachers	Administrators	Total
HVP Gatagara Rwamagana	109	28	2	139
Educational Institute for Blind Children Kibeho	37	17	2	56
The total sample size	146	45	4	195

Source: Primary data (July, 2017)

### **3.1.4 Research instruments**

The questionnaire was adapted from research thesis of Nasiforo (2015) entitled Academic impediments students with visual impairments encounter in the Colleges of University of Rwanda and referred to thesis of Lukas Matati Josua (2013) entitled Challenges of Inclusion of Learners with Visual Impairments to School Management: a case study of Gabriel Taapopi Secondary School in the Oshana Education Region in Namibia. In this study the researcher used questionnaires, interview guide and observation checklist as research instruments.

#### **3.1.4.1 Questionnaire**

A questionnaire has the ability to collect a large amount of information in a reasonably quick space of times (Wachianga cited in Orodho 2010). It also ensures confidentiality. Closed- ended items in the questionnaire was used to obtain relevant and specific data to enable the study to be more focused and realistic in its data. The open – ended items allowed the respondents to give their views and opinions on factors that hinder academic performance of learners with visual impairments. The questionnaire for teachers was used to seek background information which showed teachers' personnel data. It was also provided for collection of information on the teacher professional, tools and strategies used for learners with visual impairments and impact on academic performance.

#### **3.1.4.2 Interview guide**

This instrument consisted of a set of general questions that the interviewer asked when interviewing a respondent. The instruments helped to cover a broad area of the study and were allowed in depth information through constant probing.

#### **3.1.4.3 Observation Checklist**

This instrument was useful in the classroom during instruction where the researcher sat in classes during the teaching and learning process to observe the learner's behaviour, manipulation of curriculum, materials, strategies and teachers professional in teaching learners with visual impairments. Observation schedule was considered appropriately because; it yielded data which were used to supplement the questionnaires and interviews for relevant information.

### **3.1.5 Data collection techniques**

The research first skilled the research helper who assisted in piloting study, administration and take back of the questionnaire during the full-scale study. The questionnaire embossed in Braille was given to learners and teachers with visual impairment and the same questionnaire in print to their teachers and administrators for filling. All questionnaires were distributed and answered in instantly to eliminate losses and cross sharing of information between the respondents. Data collection was done in two successive months. The first day the researcher went to Rwamagana district where there is HVP Gatagara Rwamagana and the following day he went to Nyaruguru district where there is Educational Institute for Blind Children Kibeho. After completion of questionnaires, the researcher gave interviews to selected persons.

### **3.1.6 Data analysis procedures**

Judd, Charles and McClelland (1989) defined data analysis as a process of inspecting, purification, transforming, and modeling data with the goal of discovering useful information, suggesting conclusions, and supporting decision-making. In current research data were collected from the study was both quantitative and qualitative in nature following the research questions. Descriptive statistics were used to analyze quantitative data. Data collected from questionnaires were coded and presented in frequency distribution, percentage and tabulation as well as in narrative to describe methods, materials and teacher professional competence used in teaching learners with visual impairments. Data were collected through interview and focus group discussion was qualitative in nature and it was analyzed by thematic analysis and the dominant themes were captured and presented through narratives. Data collected from observation checklist were analyzed qualitatively and were presented in frequency distribution, tabulation and in narrative to describe methods and materials used to teach learners with visual impairments and researcher used Statistical Package for the Social Sciences (SPSS) to calculate percentages and frequencies.

### **3.2 Position of the researcher**

The research had the purpose of investigating the factors that hinder academic performance of learners with visual impairments. The researcher used case study research. Miles and Huberman (1994) define a case study as the investigation of a phenomenon occurring within a specific context. They insist that a case study approach is convenient when a researcher wants to describe

and explain a phenomenon. The current study's phenomenon is performance of learners with visual impairments in special schools. Furthermore, Gall and Borg (2007) define a case study as an in-depth investigation of two or more phenomenon in natural settings considering the perspectives of the research participants.

### **3.3 Validity and reliability**

#### **3.3.1 Validity**

Validity is the extent to which a concept, conclusion or measurement is well-founded and corresponds accurately to the real world. The validity of a measurement tool is considered to be the degree to which the tool measures what it claims to measure (Ogince, Hall, Robinson, & Blackmore, 2007). To ensure validity of instruments we used the expert judgment which ascertained that the items of questions were related to the objectives of the study and suitable for their task. This means that Consultation with the experts in the area of special needs education was done and the instruments were modified and redesigned accordingly to determine the relevance of the content of questionnaires and objectives and to ensure the clarity of information in the questionnaires.

#### **3.3.2 Reliability**

Reliability is the degree to which an assessment tool produces stable and consistent results (Cozby, 2001). To test reliability, test- retest technique used. The reliability of the research instruments for this study was measured and calculated using the test-retest method. Thus, the questionnaires were administered to the group members twice with a break interval of two weeks between the first and the second administrations. After administering the second test instrument, the results indicated the reliability of the study.

### **3.4 Ethical issues**

The researcher obtained an introductory letter from the University of Rwanda College of Education which allowed him to conduct research. Afterwards, the researcher informed head teachers of these two special schools in order to conduct research in an appropriate way. Then, the researcher requested respondents not to write their names on questionnaires, that assured the respondents of confidentiality that the information was collected from them would be used for the purpose of the study.

### **3.5 Conclusion of this chapter**

Chapter three described the methodology that this research used, starting with the research design, the sample and sampling techniques. The instruments were used in data collection were discussed. An account of how the instruments were piloted. The researcher discussed the practice of the research procedure, how the data were collected and analyzed and how research ethics was ensured.

## CHAPTER FOUR: PRESENTATION, ANALYSIS AND INTERPRETATION OF DATA

### 4.1 Introduction

The study assessed the Factors that hinder academic performance of learners with visual impairments in two selected special schools in the four key areas addressed by the research objectives of the study as follows: to find out whether teaching materials used in special schools affect academic performance of learners with visual impairment; to find out whether the teaching methods used in special schools affect academic performance of learners with visual impairment; to investigate challenges faced by teachers when teaching learners with visual impairments in special schools; and to identify measures that school management put in place to address academic challenges of learners with visual impairments in special schools. Similar answers from different respondents in each special school were put together and then analyzed.

### 4. 2. Demographic Data of teachers

The demographic data for this category of respondents were analyzed in terms of age, gender, teaching experience and the area of specialization.

#### 4. 2. 1 Age and gender of teachers

The teachers were requested to specify whether they were male or female and also questioned to show their ages.

**Table 3. Age and gender of teachers**

Age in years	Female		Male		Total	Percentage
	Frequency	Percentage	Frequency	Percentage		
18-22	1	9.09%	2	6%	3	6.7%
23-27	2	18.18%	8	23%	10	22%
28-32	3	27.27%	17	50%	20	44.5%
33-37	2	18.18%	5	15%	7	15.5%
38-42	1	9.09%	2	6%	3	6.7%
43-47	2	18.18%	0	0%	2	4.5%
Over 48	0	0%	0	0%	0	0%
Total	11	100%	34	100%	45	100%

Source: Primary data (July, 2017)

Table 3 indicates that teachers of Gatagara Rwamagana and Educational Institute for Blind Children Kibeho were all beyond 18 years. Few were those aged between 43-47 years (4.5%). The majority were aged between 28-32 years (44.5%). Those between 23-27 years were 22%, between 33-37 years (15.5%), between 18-22 and 38-42 years (6.7%) and over 48 years (0%).

#### 4. 2.2 Teaching experience teachers

Teachers were asked to mention their teaching experience.

**Table 4. Teaching experience teachers**

In an attempt to establish teaching experience from teachers, they were asked to indicate the period they had taught. The responses are shown in Table 4.

Experience	Frequency: n=45	Percentage
-3 years	20	44.4%
4-6years	13	28.9%
7-9years	8	17.8%
+10 years	4	8.9%
Total	45	100%

Source: Primary data (July, 2017)

Based on data shown in Table 4, the majority of the teachers 20 (44.4%) had taught from (1-3) years, 13 (28.9%) of teachers taught from (4-6) years while 8 (17.8%) had teaching experience between 7-9 years and only 4 (8.9%) had teaching experience of over 10 years. If this period could be translated to good teaching and accumulation of knowledge, then these teachers should be considered to be competent and able to provide adequate knowledge about academic performance of learners with visual impairments. Data supported by administrators that teachers who were trained about teaching learners with visual impairment are few compared to the number of learners with visual impairments are admitted to special schools. However, Bayene and Tizazu, (2011) supported the data that the reason could probably be due to limited or nonexistent training to acquire special education competencies; the limited opportunities for special education in some countries, limited teaching experiences, limited experience with learners with special education needs and lack of laws requiring special education.

#### 4. 2.3 Academic qualification of teachers

Teachers were inquired to state their academic qualification.

**Table 5 Academic qualification of teachers**

Qualification	Frequency: n=45	Percentage
A2	3	6.7%
A1	12	26.7%
A0	30	66.6%
Total	45	100%

Source: Primary data (July, 2017)

The data on Table 5 show the academic qualification of the 20 teachers participated in this research. The big number of the teachers in these special schools were Bachelor holders which represented by 30(66.6%), which followed by teachers had Diploma revealed by 12 (26.7) and 3 (6.7%) were the certificate holders of secondary schools. This qualification background was considered adequate to primary and secondary schools in Rwanda. Although teaches were trained, education of learners with disabilities still has its own challenges, which include lack of services for early identification, inadequately trained teachers and inadequate allocation of resources. Teachers are not trained to accommodate learners with disabilities appropriately, support and supplemental materials are lacking and in addition, learners with disability have requested to go back to segregated programmes because the instructors were not prepared to meet their needs appropriately (USAID/ Ethiopia 2011-2015:3).

#### 4. 3 Demographic data of learners with visual impairment

The demographic data for this category of respondents included gender and school level. The data were collected from both HVP Gatagara Rwamagana in Rwamagana district and Educational Institute for Blind Children Kibeho in Nyaruguru district. These data was collected to get equal representation between boys and girls in the study. School level was considered to seek varied information from the sample of 330 students.

##### 4. 3.1 Gender and age of learners with visual impairments

The learners with visual impairments were requested to specify whether they were male or female and also questioned to show their ages.

**Table 6.**Gender and age of learners with visual impairments

Age in years	Female		Male		Total	Percentage
	Frequency	Percentage	Frequency	Percentage		
Below 10	0	0%	0	0%	0	0%
11-16	15	30%	22	23%	37	25.5%
17-21	30	60%	60	62.5%	90	61.5%
22-26	5	10%	11	11.5%	16	11%
27-31	0	0%	3	3%	3	2%
Total	50	100%	96	100%	146	100%

Source: Primary data (July, 2017)

The data from Figure 6 show that the learners aged between 17-21years were 90 (61.5%), followed by learners aged between 11-16 years were 37 (25.5%), while between the age of 22-26 years represented by 16 (11%) and 27-31years represented by 3 (2%) of the learners with visual impairments. The respondents showed that no one who had the age below 10 years.

#### 4. 3.2 School level of learners

Learners with visual impairments were asked to indicate their school level.

**Table 7.**School level of learners

School level	Number of learners				Percentage
	Class	Boys	Girls	Total	
Primary	Primary 5	1	1	2	1%
	Primary 6	2	1	3	2%
Secondary	Senior 1	18	8	26	18%
	Senior 2	30	7	37	25%
	Senior 3	16	8	24	17%
	Senior 4	10	4	14	10%
	Senior 5	16	6	22	15%
	Senior 6	13	5	18	12%
TOTAL		106	40	146	<b>100%</b>

Source: Primary data (July, 2017)

The table 7 showed that learners under investigation were studying in primary and secondary schools where 37 (25%) were in senior two, 26 (18%) were in senior one, 24 (17%) were in senior three, 22 (15%) were in senior five, 18 (12%) were in senior six, and 14(10%) were learners in senior four while in primary school learners under investigation were in primary five and six; 3(2%) responded by learners of primary six and 2 (1%) by primary five learners. This table provided the best representation of the respondents. The respondents are likely to give reliable information based on their academic background and provide reliable information about factors that hinder their academic performance.

#### 4.4 Availability of teaching and learning materials in the special schools in Rwanda

Learners with visual impairments were asked to explain if they were provided with learning materials in their special schools.

**Table 8.Provision of learning materials to special schools**

	Female		Male		Total	Percentage
Answer	Frequency	Percentage	Frequency	Percentage		
Yes	36	100%	110	100%	146	100%
No	0	0%	0	0%	0	0%
Total	36	100%	110	100%	146	100%

Source: Primary data (July, 2017)

The table above mentioned showed that all respondents 146 (100%) affirmed that learning materials provided in these selected special schools.

These data were supported by teachers teaching in special schools that learning materials provided to learners with visual impairments but are not enough, continued to say, that these learners do not get enough school materials to help them in their studies. Data also supported by administrators saying that learning materials in these schools are not enough because in this school learners with visual impairments usually share learning materials available. They continued giving example that one embosser was not enough to serve almost one hundred and seventy learners. The administrators also explained that the financial problems were the main challenges that caused the learning materials to be insufficient in these special schools.

The report of World Health Organization (WHO) estimates that 15.3% of the world population

had moderate or severe disability according to the analysis of the Global Burden of Disease data for 2004 (WHO, 2011) and a considerable number among them need support services for their effective learning. Therefore the goal for every nation is to provide learning opportunities at every stage in life (UNESCO, 2006). The World Health Organisation (2011a) estimates that worldwide, approximately 284 million people are visually impaired. Of these, 39 million are blind and 245 million have low vision. Moreover, according to the World Health Organization (2011a), some 90% of the world's visually impaired population lives in developing countries. As other countries, Rwandan government puts an effort in education of persons with disabilities. According to Rwandan policy on special education needs, EDPRS 1 and 2, ESSP, The Government of Rwanda focuses on improving the quality of education for learners with disabilities by ensuring appropriate infrastructures, curriculum content and methodology and provision of appropriate learning materials (Republic of Rwanda, 2007c; Republic of Rwanda, 2010; and Republic of Rwanda, 2013b).

#### **4.5 Learners' views on distribution of resources to all learners with visual impairment.**

Learners with visual impairment were asked whether the resources provided to all learners with visual impairment were enough.

**Table 9. Are the resources provided enough to all learners with visual impairments in your school/ institution?**

Answer	Female		Male		Total	Percentage
	Frequency	Percentage	Frequency	Percentage		
Yes	2	5%	8	8%	10	7%
No	39	95%	97	92%	136	93%
Total	41	100%	105	100%	146	100%

Source: Primary data (July, 2017)

This table 9 indicates that resources provided to all learners with visual impairment were not enough which illustrated by 136 (93%) and learners affirmed that resources were enough were 10 (7%). Teachers added that the resources provided to all learners with visual impairments were not enough because the lack of teaching and learning materials. Administrators also supported the data that not for all learners with visual impairment provided resources because

many failures caused by lack of learning resources, when all these learners provided appropriate resources their academic performance should be improved. These views were that Rwanda education sector with the purpose of access to quality, equitable and effective education states that for this purpose to be achieved in order to help children with disabilities access to education like others and participate optimally in schooling as their peers the number of education personnel and teachers with skills in inclusive and special needs education should be increased and support learning materials and appropriate learning resources should be scaled up.

#### 4.6 Other resources which are not available if provided can support learners with visual impairments

Learners with visual impairments were asked whether there were others resources which were not available that they felt when provided they could support their learning.

**Table 10.** Other learning resources which are not available when provided can support learning of learners with visual impairments

Are there other learning resources which are not available and you feel if provided they can support your learning in this special school?	Frequency n=146	Percentage
Yes	146	100%
No	0	0%
<b>If yes write them down:</b>		
Embossers are not enough because when they damaged learners should take a whole term without Braille notes	60	41%
Recorders are not enough (victor readers)	146	100%
Braille writers like Braillino, Perkins Braille, Braille displays	137	94%
There is scarcity of computers & screen readers and internet connection	129	88%
Braille books are not enough	143	98%
Special geographical devices like Smart talking globe, tactile maps	127	87%

Source: Primary data (July, 2017)

The data in table 10 showed that all learners 146 (100%) agreed that there were other learning and teaching resources which are not available and they felt that if provided they could support their learning in those special schools. These learners tried their best to mention these learning resources that embossers, recorders, Braille writers, Braille books are not enough and computers & screen readers and, special geographical devices are not available. Teachers added to the data that if learners with visual impairments given assistive technologies like computers with screen readers, enough recorders, Braillino and any other devices can help them, they can learn well. The administrators supported the learners by saying that there are other learning resources which are not available when provided can support learning of learners with visual impairments like walking cane, talking globes, swell graphic machine and computers with screen readers. The data also supported by Najjingo (2009) that lack of or insufficient special instructional materials and equipment prevented access to all special education services. On the other hand Najjingo also established that there is no special curriculum for learners with disabilities.

#### 4.7 Being comfortable in special schools for learners with visual impairments

Learners with visual impairments asked how they feel when are in special schools.

**Table 11. Learners' views on being comfortable in special schools**

<b>Do you feel comfortable in special school?</b>	<b>Frequency n=146</b>	<b>Percentage</b>
Yes	110	75%
No	36	25%
<b>If no, why?</b>		
Learners with visual impairments who are in special schools confirmed that they lack of socialization with other people without visual impairment and they agreed they were isolated	36	25%

Source: Primary data (July, 2017)

The table 11 indicates that 110 (75%) represents learners who were comfortable in special schools while 36 (25%) were not comfortable. These learners disagreed by saying that they lack of socialization with other people and they agreed they were isolated from non- visually disabled people. This data supported by the UNESCO (2009) that large number of learners with

disabilities in developing countries do not attend schools, few of them who were enrolled in special schools where they were away from their families, friends, and peers, they were marginalized and had not given a chance to study in the same school with their peers where they had to enjoy school life like to play, to learn, to grow up with siblings.

#### 4.8 The appropriateness of teachers' teaching methodologies

The question sought to find out whether teaching methods used by their teachers were appropriate in special schools.

**Table 12. Learners' views on appropriateness of teachers' teaching methodologies in special schools**

<b>Are the teaching methodologies used by teachers appropriate in special schools?</b>	<b>Frequency n=146</b>	<b>Percentage</b>
Yes	131	90%
No	15	10%
<b>Added comments on respondents who answered "no"</b>		
If teacher requests learners to do a research, source of knowledge, learners have no enough dictionaries, no books in Braille, internet connection	5	33%
It is very difficult when learning sciences such as: chemistry, biology, and social sciences like drawings in geography	10	67%

Source: Primary data (July, 2017)

The data from learners on appropriateness of teachers' teaching methodologies in special schools revealed that 131 (90%) affirmed that teaching methods used in teaching and learning were appropriate whereas 15(10%) disagreed; and added other clarifications 5 (33%) said that methodologies of requesting learners to do research, give source of knowledge, however there were no enough materials means that methods their teachers used in teaching and learning were not appropriate and 10(67%) commented that methods used to teach sciences and social sciences were not appropriate. The learners' views supported by teachers where most of teachers explained that it was difficult to get methodologies used to teach learners with visual impairment in special schools because sometimes teachers had no enough knowledge on how to teach these learners because they were not trained and familiar with people with visual impairments. They

also added that they lacked the teaching aids and ways used to explain some concepts like drawings, maps and that teaching learners with visual impairments require extra time for explanation but as teachers they did not get the opportunities to do so. As noted earlier, UNESCO (2007:8) elaborated on the inability of the curriculum to cater for the needs of these learners, insufficient preparation of teachers and education leaders, rigid and poor teaching methods and inadequate assessment procedures. And other research showed that rigid curriculum and lack of appropriate teaching methodology also could be challenge of learners with disabilities including learners with visual impairments. Lack of access to appropriate materials and equipment for Special Educational Needs (SEN) constitutes also a significant barrier. For example, very few learners with visual impairments have access to Braille textbooks, even in special schools (Oforiwa, 2013). This supported by research done by Karangwa (2013) that although visually impaired learners can read by using tactile methods (Braille), this approach becomes useless when it comes to graphic representation of mathematical and scientific concepts, practical experiments, colors, symbols, graphs, drawings and others. The study noted with surprise too that HVP Gatagara receives regularly school books from the Rwanda Education Board meant for sighted learners, despite the constant reminder by its administration that these are of no use to their non-sighted learners, and their demands for tactile alternatives are reportedly ignored. Besides, the school was not guided by the national curriculum because there is none meant exclusively for learners with special educational needs, let alone the visually impaired.

#### **4.9 The way learners take notes during teaching and learning**

Learners with visual impairments were asked the way they take notes during teaching and learning in special schools.

**Table 13. The way learners take notes during teaching and learning**

How do you take notes during teaching and learning?	Frequency n=146	Percentage
Using slate and stylus	80	55%
Braille machine (Perkins Braille)	66	45%
Total	146	100%

Source: Primary data (July, 2017)

The data from learners on the way learners take notes during teaching and learning in special schools revealed that 80 (55%) affirmed that they took notes by using slates and stylus whereas 66(45%) took notes using Braille machines. It was observed that the big number of learners with visual impairments usually used slates and stylus because the Braille machines were very few in these special schools. Teachers added to the data that learners with visual impairments took notes in the classroom using states and styles and sometimes they use Perkins Braille. They used these materials to write explanation because their notes were done by Resource room/ production room.

#### 4.10 The extra time given to learners with visual impairment during exams

Learners with visual impairments were asked to explain if they were given extra time during exams.

**Table 14.Learners’ views’ on extra time given to learners with visual impairment during exams**

<b>Are you given extra time during exams?</b>	<b>Frequency n=146</b>	<b>Percentage</b>
Yes	146	100%
No	0	0%
<b>If yes how long time?</b>		
One hour	132	90.5%
Thirty minutes, but not enough	14	9.5%

Source: Primary data (July, 2017)

The data, from learners on extra time given to learners with visual impairment during exams in special schools, showed that all learners with visual impairments were given extra time during exams were responded by learners 146(100%). The learners 132 (90.5%) added that they were given one hour and for who were given extra time of thirty minutes were 14 (9.5%) however that this time was not enough. Teachers supported the data that learners with visual impairments were given an extra time of only one hour which was not enough because these learners needs enough time to read and writing. Administrators also supported the data that although learners with visual impairments were given extra time which was not enough they tried their best to perform well in school, regional tests and national examinations. Data also supported by Savard

2008:5, that the majority of learners with visual impairments will require slightly more time than other learners to perform certain tasks. It will often take them longer to completely make out what they are seeing or understand what is being discussed. Some learners with visual impairment gain an overall image from fragments they perceive whereas sighted learners gain this insight “at a glance”. In addition, they will often be required to use specialized equipment (telescope, magnifiers text enlarger), which is more time-consuming. Partially sighted learners normally write using the standard graphic code. Corrective eye wear or lenses can at times provide sufficient support. Reading printed characters is also made possible through optical instruments, such as a hand-held or eye-wear –mounted telescope, magnifier and closed circuit television (CCTV) magnifiers. It should be noted, however, that in most cases, their pace of reading will be slower.

#### 4.11 The curriculum used in special schools adapted to fit in their learning needs

Adapted curriculum is very important for learners with visual impairments so that they can learner well.

**Table 15. The curriculum used in special schools adapted to fit in learning needs of learners with visual impairments**

<b>Is the curriculum used in your school adapted to fit the learning needs of learners with visual impairments?</b>	<b>Frequency n=146</b>	<b>Percentage</b>
Yes	81	55.5%
No	65	44.5%
<b>Explain your answer</b>		
Yes, learners get notes using materials provided by school	49	60.5%
No, because no appropriate books in Braille,	65	100%
No, books provided are not designed for visually impaired learners and they don't bring assistive devices (reading machines) used to help these learners to access these books.	65	100%

Source: Primary data (July, 2017)

Table 15 shows that 81 (55.5%) of learners with visual impairments agreed that the curriculum used in special schools adapted to fit in learning needs of learners with visual impairments,

where 49 (69.5%) they were clear by saying that they got notes using materials provided by school. However, learners 65(44.5%) disagreed that the curriculum used in special schools adapted to fit in learning needs of learners with visual impairments; learners 65 (100%) added that no appropriate books in Braille; and that books provided were not designed for visually impaired learners and they didn't bring assistive devices (reading machines) used to help these learners to access these books. Teachers who teach in special schools added that curriculum used in the secondary schools in Rwanda is not modified to fit the learning needs of the learners with visual impairments because most of teaching materials used are not familiar with these learners for books brought in school from Rwanda Education Board (REB) are for learners without visual impairments, and when REB brings to the special schools some special devices, there is no training on how to use those new devices. The data also supported by administrators that there were many barriers in curriculum for teaching sciences like Chemistry for learners with visual impairments; lack of appropriate teaching aids; adapted teaching contents into Braille system; and assistive tools are insufficient.

#### **4.12 Learners' views on whether library is well equipped to support learning needs for learners with visual impairments**

Learners with visual impairments were asked whether library is well equipped to support learning needs for learners with visual impairments.

**Table 16. How library is well equipped to support learning needs of the learners with visual impairments**

<b>Do you think that the library in your school is well equipped to support learning needs of learners with visual impairments?</b>	<b>Frequency n=146</b>	<b>Percentage</b>
Yes	50	34%
No	96	66%
<b>If no explain</b>		
No books for visual impairment,	64	67%
There is no library in this school	32	33%

Source: Primary data (July, 2017)

Table 16 showed that 50 (34%) of learners with visual impairments agreed that library in their school was well equipped to support learning needs of learners with visual impairments and 96

(66%) answered “no” and 64(67%) of them added that in the library there was no books for visual impairment on other hand 32 (33%) emphasized that there was no library in that school. These data were supported by teachers who said that library was not equipped because teachers missed books for preparation of lessons, and when teachers found books from library it was not easy to prepare lesson for learners with visual impairment who mostly require Braille from resource room or production room. The data supported by administrators that library was not well equipped with resources for visually impaired learners because there were no Braille books, no computers for learners with visual impairments.

#### **4.13 Problems that teachers encounter when interacting and teaching learners with visual impairments**

The data revealed that 30 (67%) of teachers teaching in special schools affirmed that the teaching materials were not enough, 20 (44.5%) said that the period of forty (40) minutes was few to teach learners with visual impairments, 25 (55.5%) also agreed that some drawings were not taught at all levels of education, Lack of text books.

The data supported by the research done by Ann (2013) showed that teachers teaching in special schools face many challenges. These highlighted by special education teachers’ comments concerned the responsibilities of their job where scheduling is a challenge-“*getting to see all the kids in the time you needs to see them so you are not pulling kids from the things they need to be there for in the regular classroom*”. These teachers expressed frustration with the lack of support provided by general education teachers and co-teaching it is not easy. They commented on federally imposed responsibilities: paperwork, state assessments, and meeting required benchmarks. They also emphasized that they lack time or staff to adequately perform the duties of the special education position and meet students’ needs. They therefore, explained that during statewide assessment they listed as failing school because of the learners with disabilities.

The data also supported as rigid curriculum and lack of appropriate teaching methodologies also can be a challenge of learner with disabilities. Lack of access to appropriate materials and equipment for special educational need constitutes also a significant barrier. For example, very few blind children have access to Braille textbooks, even in special schools (Oforiwa, 2013).

#### **4.14 Measures put in place by school management to address identified academic challenges**

Administrators showed the measures taken into consideration to address identified academic challenges that every staff member is involved in looking a solution through the system of team working; Establishing regular budget to support special education field; Adapting teaching/ learning contents for visual impairment into Braille writing; Provision of professional development course to staff to make refreshment about special methodologies to be applied in well teaching visual impairment learners; Recruitment of teachers who are trained about special education; and Digital library. The data supported by (IDEA) that learners with visual impairments need an educational system that meets the individual needs of all learners, fosters independence, and is measured by the success of each individual in the school and community. Learners who are visually impaired are most likely to succeed in educational systems where appropriate instruction and services provided in a full array of program options by qualified staff to address each learner's unique educational needs.

#### **4.15 Conclusion of the chapter**

This chapter four is dedicated to the presentation of the data from a two selected special schools. The research data were analyzed and interpreted using other previous research. Interpretations of the results with discussion used other previous research according to Factors that Hinder Academic Performance of Learners with Visual Impairments in Gatagara Rwamagana and Educational Institute for Blind Children Kibeho as well as the opportunities were seen in this chapter.

## **CHAPTER FIVE: SUMMARY, CONCLUSION, RECOMMENDATIONS**

### **5.0 Introduction**

The purpose of chapter five was to present a brief and clear summary of the data, followed by presentations of comprehensive set of conclusions and recommendations based on the data discussed in chapter four.

### **5.1 Summary of the data**

The study aimed to identify Factors that Hinder Academic Performance of Learners with Visual Impairments in two selected special schools. This study targeted learners with visual impairments in those special schools in Rwanda. The target population of this study was 380 composed of 331 learners with visual impairments, 45 teachers and 4 administrators of Gatagara Rwamagana and Educational Institute for Blind Children Kibeho. The sample size used in this study was 195 including 146 learners with visual impairment, 45 teachers and 4 administrators of these two selected special schools in period of four years from 2012 to 2015. The questionnaires were given to learners with visual impairments, teachers teaching learners with visual impairments, and personnel for filling in. Data collected from the field was edited. The coding process then followed before the data was keyed into the statistical package for social sciences (SPSS) to aid in data analysis. Qualitative data was analyzed through content analysis and emerging major themes were identified. Descriptive statistics analyses were done from which percentage, frequency and tables were generated.

#### **5.1.1 Availability of teaching and learning materials in the special schools in Rwanda**

The data of this research showed that teaching and learning materials provided to learners with visual impairments were not enough compared to the numbers of users because learners with visual impairments usually share available learning and teaching materials and many failures caused by lack of teaching learning resources. This scarcity of materials caused by financial problems.

### **5.1.2 Other resources which are not available if provided can support learners with visual impairments**

There were other learning resources which were not available and provided they could support learners learning in special schools. These resources are computers & screen readers and special geographical devices.

### **5.1.3. Being comfortable in special schools**

The majority of learners were comfortable in special schools while others were not comfortable. These learners disagreed by saying that they lack of socialization with other people without disabilities and they agreed they are isolated from non disabled people.

### **5.1.4. Appropriateness of teachers' teaching methodologies**

Teaching methods used in teaching and learning were appropriate on one hand, and on the other hand these methodologies still have barriers like requesting learners to do research, give source of knowledge, however there are no enough materials means that methods that teachers used in teaching and learning were not appropriate.

### **5.1.5 The way learners take notes during teaching and learning**

Learners with visual impairments mostly take notes by using slates and stylus because Braille machines are few in number in these two special schools.

### **5.1.6 Extra time given to learners with visual impairment during exams**

All learners with visual impairments were given extra time during exams but it is short.

### **5.1.7 Curriculum used in special schools adapted to fit in their learning needs**

Curriculum used in special schools adapted to fit in learning needs of learners with visual impairments but this must be adapted to fit in all learners because in these special schools there are no appropriate books in Braille.

### **5.1.8 Learners' views on whether library is well equipped to support learning needs for learners with visual impairments**

All respondents argued that in the library there were no books for visual impairment.

### **5.1.9 Problems that teachers encounter when interacting and teaching learners with visual impairments**

Teachers encounter the problems of scarcity of teaching materials, sort the periods of teaching learners with visual impairments.

### **5.1.10 Measures put in place by school management to address identified academic challenges**

The measures taken were every staff member was involved in looking a solution through the system of team working; establishing regular budget to support special education field; adapting teaching/ learning contents for visual impairment into Braille writing; provision of professional development course to staff to make refreshment about special methodologies to be applied to teach visually impairment learners; recruitment of teachers who are trained about special education; and digital library.

## **5.2 Conclusions**

It was concluded that teaching and learning materials provided to learners with visual impairments were not adequate because of sharing available learning materials. The financial problems were the main challenges that caused the learning materials to be insufficient in these special schools. This shortage of materials hinders academic performance of learners with visual impairments.

The data showed that all learners agreed that there were other learning resources which were not available and they felt that if provided they could support their learning in this special school. The mentioned other learning resources were computers & screen readers and, special geographical devices, recorders, Braillino, walking cane, talking globes, swell graphic machine. Therefore, researcher concluded that academic performance of visually impaired learners delayed by unavailability of necessary teaching and learning materials.

The majority of learners were comfortable in special schools while others were not comfortable because of lacking socialization with other people without disabilities and being isolated from non disabled people.

The teaching methods used in teaching and learning were appropriate but it was still gap in academic instructions like requesting learners with visual impairments to show source of knowledge, however there were no enough materials means that methods their teachers used in teaching and learning were not appropriate and continued to be highlighted that methods used to teach sciences and social sciences were not appropriate.

Teachers also explained that it was difficult to get methodologies used to teach learners with visual impairment because sometimes they had not enough knowledge on how to teach these learners because they were not trained and familiar with people visual impairments. They also added that they lacked the teaching aids and ways used to explain some concepts like drawings, maps and that teaching learners with visual impairments require extra time for explanation but they didn't get the opportunities to do so.

The data from learners and teachers on the way learners take notes during teaching and learning in special schools revealed that a big number of respondents affirmed that they took notes by using slates and stylus whereas small number of other learners with visual impairments took notes using Braille machines. The researcher concluded that the big number of learners with visual impairments usually use slates and stylus because the Braille machines were very few in these special schools.

The data, from learners on extra time given to learners with visual impairment during exams in special schools, showed that all learners with visual impairments were given extra time during exams. The most of learners were given one hour, and rest a few of them were given extra time of thirty minutes. All of respondents complained that extra time was not enough. Teachers supported the data that learners with visual impairments were given an extra time of only one hour which was not enough because these learners needs enough time to read and writing. Administrators also supported the data that although learners with visual impairments were given extra time which was not enough they tried their best to perform well in school, regional tests and national examinations. The researcher concluded that if extra time given to learners with visual impairments in special school in Rwanda was enough their academic performance would be well.

The data demonstrated that the big number of respondents with visual impairments accepted that the curriculum used in special schools adapted to fit in learning needs of learners with visual impairments by saying that they got notes using materials provided by school. However, they was others disagreed that the curriculum used in special schools adapted to fit in learning needs of learners with visual impairments adding that no appropriate books in Braille; and that books provided were not designed for visually impaired learners and they had not assistive devices (reading machines) used to help them to access books available. The teachers teaching in special schools added that curriculum used in the secondary schools in Rwanda was not modified to fit the learning needs of the learners with visual impairments because most of teaching materials used were not familiar with these learners. The research concluded that in the library there were no enough books for visual impairment and some of respondents emphasized that there was no library in their school.

Research referring to the data revealed that the teaching materials were not enough, the period of forty (40) minutes was few to teach learners with visual impairments, Some drawings were not taught, Lack of text books, Improve new methodologies for learners with visual impairments and updating curriculum based on learners with visual impairments were still problems.

Administrators showed the measures taken into consideration to address identified academic challenges that every staff member was involved in looking a solution through the system of team working; Establishing regular budget to support special education field; Adapting teaching/ learning contents for visual impairment into Braille writing; Provision of professional development course to staff to make refreshment about special methodologies to be applied in well teaching visual impairment learners; Recruitment of teachers who were trained about special education and Digital library. The researcher concluded that within these measures taken by school management there are effects on academic performance of learners with visual impairments in special school in Rwanda.

### **5.3 Recommendations and suggestions**

On the basis of the data of the study and conclusions made, and the researcher would like to make the following recommendations:

#### **5.3.1 Recommendations to school management**

School management is advised to take a conscious decision to take charge of special education aspects of their schools and explore various alternatives to ensure success for learners with visual impairments.

It is recommended that an exchange enough teaching and learning resources which are designed for learners with visual impairments.

It is also recommended that the school management can work together with different stakeholders so that they can solve many problems which hinder academic performance of learners with visual impairments.

It is further recommended that extensive training of teachers combined with the exchange of expertise between special and inclusive schools be planned and implemented in order to maximize the participation of learners with visual impairments in both social and academic activities.

#### **5.3.2 Recommendations to teachers**

It is clear from the data that there are many factors that hinder academic performance of learners with visual impairments; however it is recommended that teachers should be provided with in-service training in the form of workshops. Once the teachers are equipped with the necessary knowledge and skills related to the education of learners with visual impairments that could change their views and perceptions towards special education for learners with visual impairments. Also, through in-service teachers training, learners with visual impairments will not be restricted from taking only some subjects from the curriculum.

The researcher, therefore, recommended that special schools HVP Gatagara Rwamagana and Educational Institute for Blind Children Kibeho should prioritize the development of in-service programmes for management and teachers.

### **5.3.3 Recommendations to the Ministry of Education**

It is recommended that the Ministry of Education should allocate a budget to make major renovations and adaptations in the physical facilities of special schools to make it friendlier to learners with visual impairments.

Ministry of Education should procure urgently needed teaching and learning assistive devices which are appropriate to all range diverse of learners with disabilities.

It is recommended that Ministry of Education should provide the schools with necessary assistive devices to help learners with visual impairments.

### **5.3.4 Recommendations for further research**

It was noted that there were issues, that were not comprehensively addressed, that arose during the conduct of this study. Therefore, the following recommendations for further research are provided:

Firstly, to investigate challenges facing procurement procedures to purchase assistive devices of learners with visual impairments

Secondly, investigate how novice teachers manage class groups for learners with visual impairments in special schools.

Lastly, Problem faced by teachers teaching learners with visual impairments in special schools in Rwanda.

## **5.4 Strengths and limitations of the study**

### **5.4.1 Strengths**

The study was confined only to two selected special schools in Rwanda. Other special schools in Rwanda were not concerned with this study. It was focusing only to the learners with visual impairments, their teachers and school administrators. The study targeted only factors that hinder

academic performance of learners with visual impairments. This study was participated by learners with visual impairments from those two special schools in academic year 2012-2015.

#### **5.4.2 Limitations**

The study was limited to analyze of data due to the fact that the respondents gave the limited information owing to research gathered information only from two special schools; Gatagara Rwamagana and Educational Institute for Blind Children Kibeho. That study had also limitation of having short period of time to collect data.

#### **5.5. Conclusions of the chapter five**

This chapter five discussed the summary, conclusions, recommendations and suggestions and strengths and limitations of the study.

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## APPENDICES

### QUESTIONNAIRES

Emmanuel MBERIMANA

Tel: +250783409877

Email: [embelema2008@yahoo.fr](mailto:embelema2008@yahoo.fr)

University of Rwanda College of Education

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#### **Introductory letter**

I am Emmanuel MBERIMANA, a student at University of Rwanda College of Education, pursuing a Master of Education in Special Needs Education. I am currently conducting a research on “**Factors that hinder academic performance of learners with visual impairments in two selected special schools of Rwanda**” Participation in this study will require that you answer questions from the questionnaire and the information you will give will strictly be kept confidential by the researcher and will only be used for the purpose of this study to improve the education of learners with visual impairments in the special schools in Rwanda. Please remember that participation in the study is voluntary. You may ask questions related to the study at any time. You may refuse to respond to any questions. You may also stop being in the study at any time without any consequences to the services you receive from your school now or in the future. If you accept to participate in this research you will help the researcher and the country of Rwanda to highlight the factors that hinder academic performance of learners with visual impairments in Gatagara Rwamagana and Education Institution for Blind Children Kibeho.



Emmanuel MBERIMANA

**Questionnaire for learners with visual impairments**

Please complete the questionnaire by responding to all questions. Information that you give will be kept confidential and only be used for the purpose of this study to improve education of students with visual impairments in the special school in Rwanda.

**Section A (Personal information).**

Please tick where appropriate

1. Age:

Below 11 years

12 years – 16years

17 years – 21 years

22 years – 26 years

27 years – 31 years

2. Gender: Female  Male

3. Year of study and area of study where applicable:

Primary 5

Primary 6

Senior 1

Senior 2

Senior 3

Senior 4: HEG  LKK

Senior 5: HEG  LKK

Senior 6: HEG  LKK

**Section B**

1. Are you provided with learning materials in your institution?

Yes  No

2. Are the resources provided enough for all students with visual impairments in your school/ institution? Yes  No

3. Are there other learning resources which are not available and you feel if provided they can support your learning in this special school? Yes  No

If yes, write them down .....

4. Do you feel comfortable in special classrooms? Yes  No

5. Are the teaching methodologies used by teachers appropriate?

Yes  No

6. From your observation, do you feel that teachers give attention to you as learners with visual impairments? Yes  No

7. How do you take notes during teaching and learning?

Using slates and stylus

Using Braille machine/ Perkins Braille

Others, please list them.....  
.....  
.....

8. Are you given extra time during exams? Yes  No

If yes, How long time? .....  
.....  
.....

9. Is the curriculum used in your school adapted to fit the learning needs of learners with visual impairments? Yes  No

Explain answer above. ....  
.....  
.....

10. Do you think that the library in your school is well equipped to support learning needs for learners with visual impairments? Yes  No

Thank you for your cooperation!

Emmanuel MBERIMANA  
Tel: +250783409877  
Email: [embelema2008@yahoo.fr](mailto:embelema2008@yahoo.fr)  
University of Rwanda College of Education

---

### **Introductory letter**

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Emmanuel MBERIMANA

## Questionnaire for teachers

Please complete the questionnaire by responding to all questions. Information that you give will be kept confidential and will be used for the purpose of this study to improve education of students with visual impairments in the special school in Rwanda.

### Section A (Personal information):

Please tick where appropriate

1. Age:

18 years - 22years

23yrs - 27years

28 years - 32 years

33years – 37years

38years – 42 years

43years-47years

Over 48yrs

2. Gender: Female

Male

3. Teaching experience

Below 3 years

4-6 years

7-9 years

Over 10 years

4. Academic qualifications:

A2

A1

A0

### Section B

5. Have you undergone one any training on special needs education? Yes  No

7. Briefly explain the problems you encounter when interacting and teaching learners with visual impairments? .....

8. Is the curriculum used in the secondary schools in Rwanda modified to fit the learning needs of learners with visual impairments? Yes  No

If yes, briefly explain .....

9. Do you adapt learning resources that you use during teaching to suit the needs of the learners with visual impairments? Yes  No

10. Are learners with visual impairments able to take notes and cope with your lesson comfortably? Yes  No   
If no, where do they get notes for revision?

.....  
.....

11. Are the classrooms fitted with the right facilities for the learners with visual impairments? Yes  No

12. How do you evaluate and give feedback to these learners?

.....  
.....

13. Do you think it is necessary to organize seminars for teachers in your school on how to teach learners with visual impairments? Yes  No   
If yes, give reasons.....

.....

14. Do you have Braille materials including course books? Yes  No   
If no, how do they do their assignments and other further readings?

.....  
.....

15. How do learners with visual impairments perform in their assignments (school/regional tests, school/ regional exams and national examinations) compared with their sighted peers?

.....  
.....

16. What challenges do you feel that learners with visual impairments encounter during these tests and examinations? .....

.....  
.....

17. Write down the problems that you face during teaching in special school? .....

.....  
.....

18. As a teacher in special schools in Rwanda, what recommendations would you give to improve on the curriculum and the teaching methods used in the secondary schools to accommodate the needs of learners with visual impairments?.....

.....  
.....

Thank you very much for your cooperation!

Emmanuel MBERIMANA  
Tel: +250783409877  
Email: [embelema2008@yahoo.fr](mailto:embelema2008@yahoo.fr)  
University of Rwanda College of Education

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### **Introductory letter**

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Emmanuel MBERIMANA

**Interview Guide for administrators (Head teacher, Resource Room Officer)**

1. Do learners with visual impairments perform well in school, regional tests and national examinations?

Yes  No

Explain

.....  
.....

2. Have you included special education in your strategic plan?

Yes  No

Explain

.....  
.....

3. Do you involve other academic staff when making decisions concerning special education for learners with visual impairments? .....

.....  
.....

4. What are the curriculum barriers for the implementation of special education for learners with visual impairments in Rwanda? .....

.....  
.....

5. What do you think are the measures to be put in place to improve the accessibility in classrooms and the dormitories? .....

.....  
.....

6. Do you have teachers who are trained in the special needs education?

Yes  No

If yes, are they enough? Explain:

.....  
.....

7. Is there enough financial support to help in availing the special equipment needed for teaching and learning of learners with visual impairments? Yes  No

8. Are the required equipment and other learning materials for learners with visual impairments enough and appropriate? Yes  No

If no, elaborate your answer

.....  
.....

9. What type of equipment is available in your school for learners with visual impairments in order to facilitate their efficient learning process in the classrooms? .....

.....  
.....

10. Does every learner with visual impairment have enough learning resources to support them in their academic performance? Yes  No

If no, how does it affect their academic performance? .....

.....  
.....

11. Is the library equipped with the relevant Braille materials for the use by learners with visual impairments? Yes  No

If no, how do they do the research? .....

.....  
.....

12. Highlight on policy strategies that could be employed to address the factors that hinder efficient provision of special needs education .....

.....  
.....  
.....  
.....

Thank you very much for your cooperation!

Emmanuel MBERIMANA  
University of Rwanda College of Education  
School of Inclusive and Special Needs Education  
Master of Education in Special needs Education  
Tel: 0783409877  
Email: [embelema2008@yahoo.fr](mailto:embelema2008@yahoo.fr)  
Date: 20<sup>th</sup> July 2017

The HVP Gatagara Rwamagana  
Rwamagana district, Kigabiro sector

and

Educational Institute for Blind Children in Kibeho  
Nyaruguru district Kibeho sector

**RE: Permission to carry out research in your institutions**

I hereby request you the permission to carry out research in your institution. This research is one of the most important parts of master's studies and it is compulsory for all master's students to conduct the research. With these reasons I am currently conducting a research on "**Factors that hinder academic performance of learners with visual impairments in Gatagara Rwamagana and Education Institute for Blind Children Kibeho**". Allowing me to carry out this research in your institution will contribute to improve the education of learners with visual impairments in the special schools in Rwanda. Attached, please find **To Whom It May Concern** from University of Rwanda.

Sincerely yours,



Emmanuel MBERIMANA



UNIVERSITY OF  
**RWANDA**

**COLLEGE OF EDUCATION**  
*School of Inclusive and Special Needs  
Education*

**TO WHOM IT MAY CONCERN**

Dear Sir/Madam,

Re: /.....Emmanuel MBERIMANA.....

The School of Inclusive and Special Needs Education offers a Masters Degree in Special Needs Education. As part of the academic requirements students must write their dissertation on a topic of their choice after conducting a research study.

In order to facilitate them complete their studies we seek for your cooperation in allowing the above named student conduct his research on the topic:"

Factors that hinder academic performance of learners with visual impairments in Gataaga Kwana-gana and Education Institute for blind children Kibeho»

to collect data in your Institution /Organization. This will enable the student to write his dissertation.

In case you may require any other information regarding this exercise you are welcome to contact the School of Inclusive and Special Needs Education.

Thank you for your cooperation

Sincerely yours

Done at UR-CE on 28/05/2017

Signed.....

Dr. Evariste KARANGWA  
Dean, School of Inclusive and Special Needs Education

Email: karangwa28@gmail.com

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