CHALLENGES TRAINEES WITH VISUAL IMPAIRMENT ENCOUNTER IN LEARNING ORIENTATION AND MOBILITY: CASE OF STUDY, MASAKA REHABILITATION CENTER FOR THE BLIND IN KIGALI, RWANDA

BY

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FEBRUARY, 2019
DECLARATION

I declare that this thesis is my original work and has not been presented in any other University. The work has been completed by referenced works duly acknowledged. Where text, data, graphics, pictures or tables have been borrowed from other works, the sources are specifically accredited through referencing in APA and in accordance with anti-plagiarism regulations.

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DEDICATION

The thesis is dedicated to my husband Mr. Nyankiko Peter, my sons Toha Louange and Itetu Arnauld, and my daughter Tunda Belinda, who patiently endured my absence from home while undertaking this course.

More particularly my husband for his understanding and the loving concern he showed me and our children who needed my presence during their childhood years.

May the Almighty God bless you.
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To my friends at MRCB, receive my appreciations for your co-operation during the study. I consider you to be resourceful friends. It was not only easy working with you but also was it informative.
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<tr>
<td>ADL</td>
<td>Activity of Daily Living</td>
</tr>
<tr>
<td>CBM</td>
<td>Christoffel Blinden Mission</td>
</tr>
<tr>
<td>CRPD</td>
<td>Convention on the Right of Persons with Disability</td>
</tr>
<tr>
<td>ETAs</td>
<td>Electronic Travel Aids</td>
</tr>
<tr>
<td>HVP</td>
<td>(Home de la Vierge des Pauvres) - Home of the Virgin of the poor</td>
</tr>
<tr>
<td>MRCB</td>
<td>Masaka Rehabilitation Center for the Blind</td>
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<tr>
<td>O&amp;M</td>
<td>Orientation and Mobility</td>
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<tr>
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ABSTRACT

This study analyzed the challenges trainees with Visual Impairment encounter in learning Orientation and Mobility at Masaka Rehabilitation Center for the Blind, Kigali, Rwanda. Masaka rehabilitation center is the only existing center in Rwanda which trains people with Visual Impairment in O and M. In fact, the loss of sight has a negative impact on Orientation and Mobility since this is the main sense organ which assist people in their movement. Specific objectives of the study sought to: Identify the challenges related to the professional qualification of trainers on the training of O&M among trainees, assess the availability of an appropriate curriculum for O&M for the trainees, determine available resources for the training of O&M among trainees and assess the skills acquired in O&M among trainees with VI at MRCB. The study was based on Social Cognitive Theory by Albert Bandura (1977). The theory was used in the study widely to provide a means of assessing and supporting progress in the development of skills/competencies on O&M. The study adopted a case study research design. The study targeted 142 respondents comprising of 5 trainers, 135 trainees and 2 administrators. Using purposive sampling, 4 trainers, 133 trainees and 1 administrator were sampled giving total of 138 respondents. Interview schedules and questionnaires were used to collect data. Data collected was analyzed quantitatively and qualitatively. Quantitative data was analyzed using descriptive statistics. Frequency distribution tables and percentages were used to express the data. Qualitative data obtained from different explanations were presented in a narrative form. The findings of the research indicated that there wasn’t a standard O&M curriculum developed or being used, there were no qualified O&M instructors and further on that there lacked enough O&M resources at MRCB. These factors were noted to impact on the level of skills acquisition in O&M. However, respondents still acknowledged that the training at MRCB provided some important O&M skills to the trainees which left them much more independent than when they joined the institution. In conclusion, the study noted that MRCB was imparting important O&M skills in the lives of the trainees. Various recommendations to improve training were established: the need to train existing trainers and employ other professional O&M trainers, a well-developed O&M curriculum to expand the content of the training, acquisition of adequate O&M resources necessarily to facilitate the training, and finally, differentiating learning in the O&M class since individual differences exist amongst the trainees which impacts on the pace of skills acquisitions.
CHAPTER ONE

INTRODUCTION AND BACKGROUND TO THE STUDY

1.0 Introduction

This chapter concentrates on the background to the study, statement of the problem, the purpose of the study, objectives of the study, research questions, limitations and delimitations, the significance of the study, the assumptions of the study, theoretical and conceptual framework, as well as operational definitions of key terms.

1.1 Background to the Study

Sensory deficit significantly impacts on all elements of an individual’s everyday life. Some elements can be severely limited as a result of sensory deficit. The element of spatial orientation is one of the areas affected by the loss of sight (Prevent Blindness America, 2003). Allen and Jacobson (2003) argue that Orientation and Mobility (O&M) is a profession specific to blindness and low vision that teaches safe, efficient and effective travel skills to people of all ages.

"Orientation" refers to the ability to know where you are and where you want to go while "Mobility" refers to the ability to move safely, efficiently and effectively from one place to another, such as being able to walk without tripping or falling, cross streets, and use public transportation. An O&M Specialist provides instruction that can help develop or relearn the skills and concepts you need to travel safely and independently within your home and in the community. Specialists in O&M provide services across the life span,
teaching infants and children in pre-school and school programs, as well as adults in a variety of community-based and rehabilitation settings (Roman, 2003).

Globally the profession of O&M began to develop during and immediately after World War II when soldiers who had been blinded in battle were sent to recuperate at Valley Forge Army General Hospital before entering Avon Old Farms Convalescent Hospital, the American Army's former experimental Rehabilitation Center for Blind Soldiers in Avon, Connecticut. However, this skill has lacked behind in Rwanda. Over time, independent travel for individuals who were blind was not widely achieved or expected. Before World War II, there was no formal training of specialists in the field of orientation and mobility. Only few institutions offered anything above basic instruction in independent travel for individuals with VI.

Early O&M training was characterized by a concentration on the students’ orientation with the institution they were admitted to, (Publication Manual of the American Psychological Association, 2001: Ad Hoc Committee on Mobility Instruction for the Blind, 1999). Various methods to support the rehabilitation of war veterans were developed during World War II. This can be attributed to the Veterans Administration in the United States. It is as a consequence of these improvements in the field of O&M combined with the immense capabilities exhibited by rehabilitated veterans that an interest in the field went up. The program never fully succeeded because of financial constraints. The first university training program in the area of Orientation and Mobility was started in 1960 in America. The achievements by the O&M instructors together with
the progress made by the individuals with visual impairment with whom they worked spelled out the importance of O&M. Since then, O&M has always been recognized as a key service area for individuals who are blind and Visually Impaired. This was not well received by the society since persons with visual impairment were kept away from the public let alone being supported to obtain the important service, (Nagle, 2001). Globally, Orientation and Mobility training programs are housed within Special Education Programs while others are offered through Programs in Rehabilitation (Blasch, 1997). In Kenya, O&M can be traced to the year 1974 when Christoffel Blinden Mission (CBM) started a program in conjunction with the Ministry of Education to train teachers in Kenyan Schools for the Visually Impaired in O&M so that they could instruct others in their respective institutions. However, this did last for a short time since without O&M curriculum, an appropriate follow up mechanism, effective teaching of the skills and a national training course that would provide more trainers, it became difficult for O&M to become a significant subject in the curriculum (Lighthouse International, 2002). The same challenges were also experienced in Rwanda upon the introduction of O&M.

In Article 26 for Habilitation and Rehabilitation, from the Initial Report of Rwanda on the implementation of the Convention on the Rights of Persons with Disabilities (CRPD), O&M is provided in some specialist reference units producing mobility appliances. These are the Rwandan Military Hospital, The University Hospital Huye, The Gihundwe District Hospital, Ruhengeri District Hospital, and The Kigali Central Hospital with other non-state providers in Mulindi Japan; Gatagara and Gikondo centers, and Gahini. There is no white cane production and other assistive devices thereby, making O&M training
difficult to achieve its missions. O&M training for the visually impaired is included in Activities of Daily Living (ADL) training, the only current provider for adults being the Centre run by Rwanda Union of the Blind at Masaka. Special Schools for students with VI (HVP Gatagara Rwamagana in Eastern Province, and Kibeho School for the blind in the Southern Province) teach independent O&M skills to Visually Impaired pupils.

The Government of Rwanda gives unreliable support to centers for children with disabilities for the acquisition of white canes which are necessary for ensuring the security of the children with poor sight in their movement (Knowles, 1969). Therefore, this study did analyze the challenges trainees with visual impairment encounter in Orientation and Mobility.

1.2 Statement of the Problem

The Law No 02/2007 of the 20 January 2007 on the Rwanda Disability Act on the protection of ex-combatants with disabilities defines specific rights of former combatants with disabilities in the area of adaptation and rehabilitation, yet, it does not give guidelines on provision of O&M training for those with visual impairment.

When vocational rehabilitation is unsuccessful, it can lead to a wastage of a country’s resources allocated for the course and perpetuate the sense of inability and dependency amongst persons with visual impairment and the trainers. The government of Rwanda provides resources and materials for O&M to persons with disability in public entity. MRCB being a private institution, depends entirely on donors, private organizations and well-wishers for these provisions, and doesn’t get any help from the government be it
giving them the resources or training the trainers hence the researcher doubt on the training provided to trainees in O and M (Initial Report of Rwanda, 2010).

The above-mentioned challenges suggest that there is inadequacy of O&M training for persons with visual impairment in Masaka center. Therefore, this research sought to analyze the challenges trainees with visual impairment encounter in Orientation and Mobility at Masaka Rehabilitation Center for the Blind, Kigali, Rwanda.

1.3 Purpose of the Study

The purpose of the study was to examine challenges trainees with visual impairment encounter in Orientation and Mobility. Identify whether there is an existing curriculum to train people with visual impairment in O and M and lastly to find the possible recommendations for all the concerned institutions in order to provide a professional training to people with visual impairment in O and M.

1.4 Objectives of the Study

The specific objectives were:

i) To identify the challenges related to professional qualification of trainers in orientation and mobility at MRCB.

ii) To assess the availability of an appropriate curriculum on orientation and mobility for trainees with VI at MRCB.

iii) To determine the available resources for training orientation and mobility for trainees with VI at MRCB.

iv) To assess the skills acquired in O&M among trainees with VI at MRCB.
1.5 Research Questions

i) What are the challenges related to the professional qualification of trainers of trainees of O&M at MRCB?

ii) Is there an appropriate curriculum for O&M for learners with VI at MRCB?

iii) What resources are available for training learners with VI in O&M at MRCB?

iv) What is the level of skills acquisition in O&M amongst trainees with VI at MRCB?

1.6 Limitations and the Delimitation of the Study

1.6.1 Limitations of the Study

This study faced a language barrier since most of the trainees in the center neither understand nor speak English and French fluently. Therefore the researcher was compelled to translate the questions in the questionnaires and the interview schedule into Kinyarwanda or the language they understand and speak fluently.

The researcher faced challenges in trying to translate the information given into Kinyarwanda because some of the Kinyarwanda words have more than one meaning and this could lead to ambiguity. These limitations affected the research instruments as some information was adjusted to suit the respondents.

1.6.2 Delimitation of the Study

This study was restricted to trainees, trainers and administrators at Masaka Rehabilitation Center for the Blind since it is the only rehabilitation center for the blind in Rwanda. The research looked at O&M at the center rather than Braille and Agriculture since the skill is important for the independence of anyone who loses sight.
1.7 Significance of the Study

This study was expected to benefit disability stakeholders in Rwanda. The Ministry of Education could use the findings to develop a curriculum for O&M to be used in the training of persons with visual impairment to enhance independence in their day to day life as they pursue their education. This was crucial because many people with visual impairment in Rwanda have limited skills and knowledge in O&M. Therefore, the information that would be obtained from this research could be beneficial to trainees in Masaka and their trainers as well. This could improve their skills, knowledge and attitudes in learning and teaching O&M.

It was also expected to benefit other institutions teaching students with VI in Rwanda such as inclusive schools, special schools, colleges and other institutions of learning which admit students with visual impairment. This could improve the teaching methodology as well as help in attitudinal change towards O&M and eventually help persons with visual impairment.

1.8 Assumptions of the Study

This research was guided by the assumption that the trainers and trainees with Visual Impairment in MRCB would volunteer to give relevant and updated information in O&M.

The other assumption was that there are challenges trainees with visual impairment encountering Orientation and Mobility at MRCB, Kigali, it was therefore assumed that
the trainers and trainees with Visual Impairment in MRCB volunteered to give relevant and updated information about O&M.

1.9 Theoretical and Conceptual Framework

1.9.1. Theoretical Framework

This study was based on Social Cognitive Theory (SCT) by Albert Bandura (1977). The theory was originally developed stressing on the acquisition of social behaviors but it goes ahead to assert that learning takes place in a social context and that observation plays a vital role in the learning process. SCT has been employed in a general sense in various areas. A good example is in career choice. SCT also has been applied extensively by those interested in understanding classroom motivation, learning, and achievement (Pajares, 1996; Schunk and Zimmerman, 1994; 1998).

SCT is propped up by a variety of premises regarding learning and behavior which can be related to O&M. One assumption concerns “triadic reciprocity”, or the view that personal, behavioral, and environmental factors influence one another in a mutual manner. This implies that a person's performance is a product of a continuous interface between cognitive, behavioral, and contextual factors. For instance, the process of skills acquisition in O&M is shaped by factors within the academic environment, especially the reinforcements experienced by oneself and by others. Similarly, learning is affected by students’ own thoughts and self-beliefs and their interpretation of the classroom context.

Another pertinent assumption within SCT to trainees with VI training in O&M is that they have the ability to influence their own behavior and the environment in a purposeful...
style (Bandura, 2001). This belief rejects earlier forms of behaviorism that underlined the overt role of the environment in shaping behavior. SCT does not deny the importance of the environment in determining behavior, but it does argue for instance that trainees with VI training in O&M can also, through forethought, self-reflection, and self-regulatory processes, impact on their training in O&M.

The other proposition within SCT that can be related to trainees with VI training in O&M is that which states that learning can occur without an immediate change in behavior or more broadly that learning and the demonstration of what has been learned are distinct processes. One reason for this separation is that SCT also assumes that learning involves the acquisition of new behaviors as well as of knowledge and mental processes like rationalization, developing of, concepts and learning abstract rules. This view of learning and behavior is a shift from the position advocated by behavioral theories that defined learning strictly as a change in the form or frequency of behavior. SCT makes the assertion that learning cannot always be observed a fact which is relevant in O&M for instance in the issue of mental mapping of spaces. This cannot be observed like other behavior unless the O&M trainee is put to task for evaluation. This theory fits the study since it acknowledges that effective acquisition of O&M skills depends on cognitive visualization of the environment as well as acquisition of relevant knowledge. SCT helps us to view O&M as training beyond the use of the white cane and further on a continuous rationalization by the traveler with visual impairment who puts into use other senses as well as the knowhow of interacting with other people in the course of their movement. The tenets of the social cognitive theory guided the questions formulated for the
interviews as well as for the questionnaires. It helped evaluate the scope of the O&M curriculum, proficiency of the teachers, availability of O&M resources and how all these factors interacted to influence skills acquisition.

1.9.2 Conceptual Framework

A conceptual framework is an analytical tool with several variations and contexts. It is used to make conceptual distinctions and organize ideas.

![Conceptual Framework Diagram]

**Independent Variables**

- **Professional qualification**
  - Training in O & M

- **Curriculum**
  - Availability
  - Time allocation

- **Resources**
  - Availability
  - Adequacy
  - Appropriateness

**Skills acquired**

**Dependent Variables**

- Acquisition of O & M

**Figure 1.1: Conceptual Framework**

**Source**: researcher’s own model (2016).

A person who is blind requires O&M training and skills to be proficient and competent in ADL. A comprehensive training which includes the interaction of VI with their sighted
peers, accessible environment and working place is necessary. Successful outcomes for the trainees in executing their duties as they learn from their sighted peers and receive challenges in accessing the environment and working place are vital. O&M creates independence; it helps persons with visual impairment to advance in their life. However, effective delivery of O&M depends on a good curriculum, O&M resources and qualified trainers. In a situation where the curriculum is excellent but the trainers are incompetent, the acquisition of O&M will be poor. Similarly, the availability of O&M resources highly affects acquisition of O&M skills. Adequate resources coupled with a good curriculum and effective trainers results to a well oriented VI.
1.10 Operational Definitions of Key Terms

Facilitation: According to Jacobson (2011), is the process of providing a person with the means to develop maximum independence in activities of daily living through training.

Mobility: Is the movement of a person from one position to another mostly the desired position.

Orientation and Mobility: defined as teaching the concepts and skills necessary for a student to travel safely and efficiently in their environments (Dodson & Hill, 1989).

Orientation: This means establishing one's position in the immediate environment.

Rehabilitation: This is the act of restoring something to its original state.

Special education or special needs education: According to Blasch (1971), the practice of educating students with special needs in a way that addresses their individual differences and needs.

Visual Impairment: According to Macmillan Dictionary, It refers to a significant loss of vision, even though the person may wear corrective lenses. The nature and degree of visual impairment may vary significantly, so each student may require individual adaptations to instructional practices and materials to learn effectively.

Trainees: According to Macmillan Dictionary, a trainee is a person undergoing training for a particular job or profession. In this research thesis, this term refers to people with visual impairment who are trained in Masaka MRCB.
**Trainer:** Refers to a person who has the skills and has the ability to impact the same skills on others. In this research, the term means impacting skills on learners with visual impairment.
CHAPTER TWO

REVIEW OF RELATED LITERATURE

2.0 Introduction

This chapter discussed the following themes: the effects of professional qualification of O&M trainers, the effects of availability of appropriate curriculum on the training of O&M, effects of the availability of resources on the training of O&M, skill acquisition in O&M and summary of the literature.

2.1 Effects of Professional Qualification of O&M Trainers on the Training of O&M

The issue of professionalism in O&M developed as a result of the growing demand of the O&M services. Boston College was the first institution to offer university training to O&M experts (Blasch, 1971). Western Michigan University instituted the course in 1961 becoming the second institution of higher learning to offer O&M training to professionals. Consequently, the formation of bodies like the academy for the certification of vision rehabilitation and education professionals gave a boost to the development of the profession of O&M. For instance, ACVREP published a handbook on O&M in which it indicates the skills, qualifications and duties of O&M specialists, (ACVREP, 2014). ACVREP notes that in the US, professional certification of O&M trainers can be traced back. This means that trained and qualified professionals have been serving in the country for all this time. This is however different in Africa where the profession is still growing with no certification bodies in most countries. Despite the growth in professionalism in the field, some people are still opposed to the view of O&M
being included in higher education as they hold to the argument that O&M should be evaluated majorly through execution of tasks and not on a theoretical sense.

Trainers of O&M should be professionals who have undergone training on the various skills that they will impact on trainees in the course of their teaching. The view of O&M being purely practical as evident in the use of a white cane is challenged by the Ontario Child setting who argue that an individual trained in O&M should be able to for instance, use their auditory among other residual senses, to obtain useful information about their environment. The trained Blind traveller should be able to ensure his/her safety, employ problem solving skills for instance when they lose direction, know how to request for assistance, use other relevant assistive technology and effectively utilize public utilities, (Ontario Child Setting, 2007).

An orientation and mobility specialist ought to have knowledge relevant to the field. This knowledge is handy in the training process as it will empower them to handle different situations professionally. This implies that there is a need for professionals to undergo formal training. According to the O&M specialist handbook by ACVREP, O&M trainers should possess knowledge of various laws in a country regarding persons with disabilities. This can for instance include acts of parliament. The trainer should have information about bodies that provide services relevant to persons with disabilities. The professional must have knowledge about the structure of the eye and how it functions and basic knowledge on how to react to certain medical conditions in case a student develops a complication during a lesson (ACVREP, 2014). This level of knowledge makes the
O&M trainer well placed to offer a wider range of services that may be useful to his/her trainees as well as have a greater understanding of the trainees’ condition. This could improve the teaching learning process.

The development of higher education in the area of O&M can be viewed as being advantageous in terms of increasing the number of qualified trainers. Considering the need for O&M training to be individualized and personalized to ensure the trainee with visual impairment get the best from the training, (Jacobson, 1993) then it is inevitable that more trainers have to be prepared for the task. Higgerty and William note that group and paired teaching may be employed in the instruction of O&M. This is when two or more trainees receive instruction at the same time. The O&M trainer must however be trained and hence competent in grouping these learners to ensure that a group which is relatively homogeneous is brought together. This can be done by considering factors like additional disabilities, pace of learning and onset of visual impairment, (Higgerty & Williams, 2005).

O&M training is advanced in developed countries when compared to the less developed. However, in recent years, African states like Kenya, Nigeria and Botswana with great support from South Africa have also been buying into the idea that university education may be a necessary part of instructor preparation, just as it is with other emerging professions. Lack of university education impinges on certification. It is true that most fields that have developed into professions have university based curricula of training but Rwanda has not implemented university-based curricula for training O&M instructions
thereby depending on professionals from neighboring countries’ or train O&M trainers in other countries. African states lack O&M professional governing body to administer the area of O&M specialist. This research evaluated the professional qualification of O&M trainers at MRCB. The research then examined the impact of the trainers’ skills on O&M training amongst trainees at MRCB.

2.2 Effects of Availability of Appropriate Curriculum on the Training of O&M

According to Blasch and Welsh (2010), Orientation and Mobility has been an important discipline in the rehabilitation and education of people with visual impairments. Initially, O&M faced a lot of opposition and misunderstanding. It is due to the efforts of various organizations as well as individuals which have nevertheless propelled this field to the current level. Efforts to provide the O and M to persons with visual impairment arose from the need to meet their needs in particular situations. Mobility is an important part of everyone’s daily activities. It cannot be replaced with anything else. This is why limited mobility comes out as one of the main causes of dependency amongst persons with visual impairment (Lahav & Mioduser, 2002). Orientation and mobility as a subject should be developed to enable trainees acquire skills and knowledge that would support their independent movement. If trainees don’t acquire full independence, Jacobson argues that then the past beliefs that persons with visual impairment cannot acquire full independence are upheld (Jacobson, 1993). In the USA and the UK O&M is a subject that is timetabled in the school as other lessons hence making its learning rigorous. The situation is different in most African states especially in Rwanda where O&M is not
timetabled and scheduled as a subject but as a none-examinable subject. The result is the allocation of less time (Blash & Wiener, 2010).

In Rwanda, it is neither in the school timetable nor valued in the post-primary institutions of learning and O&M is taught only in special schools with minimal supervision. In this manner after the transition to post-secondary learning institutions, the learner with VI does not have the regular training given to him or her. The research examined the state of O&M curriculum in Rwanda and specifically at MRCB. It went further to establish the impact of the absence of the O&M curriculum on the training process.

2.3 Resources Used in the Training of O&M

There are a variety of mobility devices available for the use by persons with visual impairment. The suitability of the device to be used highly depends on the individual although the white cane is a more common mobility device. The UN contends that obtaining these resources needed for mobility of persons with disabilities is a great step towards the improvement of their lives as it directly influences their ability to fully participate inclusively, adds dignity to the individual’s life and generally ensures the individuals enjoy their human rights (UN, 1993). A great hindrance to the mobility of persons with visual impairment in Africa is the lack of mobility devices. The United Nations’ convention on the rights of persons with disabilities (CRPD) places the duty of availing assistive devices for mobility to individual nations (UN, 2006). Shortage of mobility resources can therefore be variables to the lack of commitment by respective countries to implement the requirements of this convention. The convention goes ahead
to call upon states to ensure the highest possible mobility of persons with disabilities and notes that this is possible through mainly provision of required assistive devices.

For mobility devices to be useful they have to be appropriate to the user and the specific environment in which they are being used (WHO, 2011). If the appropriateness is considered, WHO asserts that it impacts positively on the individuals’ lives through increasing their participation in various activities and also alleviating dependency as persons with disabilities become more and more independent (WHO, 2011). The increased participation of persons with disabilities can be seen in accessing education and employment all of which are correlated with improvement of their quality of lives (SIAT, 2005).

Blasch and Welsh (2010) in their book of *Foundations of Orientation and Mobility*, discuss various mobility devices. They acknowledge the importance of a white cane as it serves the purpose of enhancing mobility by protecting the user as well as keeping them safe (Blasch & Welsh, 2010). The two concepts are quite similar although they elucidate varied interpretations considering that a white cane not only helps the user to trace the way but also makes aware those coming on the way of the user that the individual may not be able to see them (Kirchner & Peterson, 1998). It is from this standpoint that the different uses of a white cane can be understood. White canes can be used by both the Blind as well as those who have severe low vision. Due to the to the traffic jumps in some cities today, there is a strong need for people with visual impairments to walk with white canes.
Blasch and Welsh (2010) identify different types of white canes including long white canes and collapsible white canes. Collapsible white canes are advantageous considering the ease to store them when not in use. Long white canes on the other hand are handier in rough terrain and are more durable. Despite being the most common mobility device used by persons with visual impairment, it has limitations especially when it comes to ensuring protection of the upper part of the body (Welsh & Blasch, 2010). This then raises the need for usage of this device together with others to ensure maximum safety.

Electronic travel aids form one of the emerging mobility devices. These devices are more sophisticated and seem to compensate for the limitations of the white cane when it comes to protecting the upper part of the body and giving more information about the individual’s space, (Welsh & Blasch, 2010). These devices operate by sending signals to detect physical objects on the way of the traveller and send back feedback which could be in tactile format or audio format. The traveller is expected to interpret the information for instance in terms of distance from the physical object. The latest electronic travel aids for persons with visual impairment can be seen in the area of GPS maps. An example is the Braille note which has the software that can direct an individual through streets by commanding them when to turn and informing them of their spatial orientation. This is achieved through the use of the Google map, GPS and the speech.

Dog guides have provided for another alternative for safe movement of persons with visual impairment. Dog training Schools are common in Europe and America whereas in Africa South Africa is the country known to breed and train such dogs. Dog guides can
undertake complex tasks after training. They can help the Blind people when they are moving (American Veterinary Medical Association, 2000). It is worth noting that the duty to make careful decision doesn’t rest with the dog but the individual being guided. For instance, the blind person should be able to use the auditory sense to judge the distance of oncoming cars and decide whether it is safe to cross roads or not. The dog user should have undergone O&M training before he/she is allowed to have a dog guide (Sardegna et al., 2002). The use of dog guides for mobility comes with expenses ranging from acquisition of the dog, grooming it, veterinary care as well as continuous training of the dog to keep the dog disciplined and conditioned to the training it received (Sardegna et al., 2002). These demands from dog guides probably make them less appealing in Africa.

The use of sighted guides is another mobility technique. It is most common in Africa possibly due to being readily available. A human guide is charged with ensuring safety and orientation of the person with visual impairment being guided (Dodson & Hill, 1989). The sighted guide should be able to give clues to the person being guided on the terrain ahead. For instance, the guide can reduce the pace when approaching staircases or put his hand behind him to show the individual with visual impairment that it is a narrow corridor (Dodson & Hill, 1989).

Various mobility devices have been discussed. These techniques have unique advantages and disadvantages. This presents the need for persons with visual impairment to be trained in the use of more than one technique. This paper examined the O&M techniques
and devices used for training at MRCB. It went further on to evaluate the adequacy of the devices and other challenges related to O&M resources.

2.4 Orientation & Mobility Skills Acquisition for Trainees with Visual Impairment

For one to be able to maneuver through unfamiliar environment independently, safely and efficiently, one has to make use of motor, sensory and cognitive skills. The cognitive part of O&M is evident in the mental mapping of spaces (Lahav & Mioduser, 2002). Most of the information required for this skill and knowledge acquisition can be obtained via the use of sight. People who are blind lack a means of obtaining this information and in consequence they are required to use alternative body senses that they possess and discovery methods that will generate the required information (Jacobson, 1993).

According to Lahav and Mioduser (2002), the teaching of O&M to learners with visual impairment should be geared at enabling them obtain both perceptual and conceptual information about their environment. At the perceptual level, the lack of sight should be compensated for by information obtained via other senses. Most individuals with blindness use haptic information which is commonly supplied by the white cane which elicits a rather limited scrutiny of the immediate surroundings. Individuals can also obtain useful information through palms and fingers which help in the fine recognition of the object. The individual with blindness also obtains important information through their feet. As the individual steps on the ground, he/she is able to obtain information regarding the navigational surface (Lahav & Mioduser, 2002).
As for the conceptual level, O&M training should be able to enable the trainee develop appropriate strategies for an efficient interpretation of navigation paths. According to Lahav & Mioduser, 2002, people employ two main strategies in their orientation and mobility. These are route and map strategies. Route strategies involve linking one’s current position and his/her destination on a straight line. Short cuts and other alternative ways to the same destination may not be captured by the traveler. On the other hand, map strategies which are evidently more efficient than the former, are holistic in nature, as they constitute many more features of the environment being transverse, (Lahav & Mioduser, 2002). Generally, people who are blind use mainly route strategies when making out their way through unfamiliar place (Jacobson, 1993).

According to Jacobson, 1993, advanced mobility devices using electronic maps and GPS settings are used in developed countries to provide much needed information about a traveler’s environment hence easing mobility. African nations except South Africa are however yet to fully be in a position to support such technologies.. The Rwandan government has not invested heavily in disability studies therefore, the learners with VI lack adequate skills on the O&M training. The research assessed the level of skills acquisition in O&M from responses given by trainers and trainees on how they rate the success of the program.

2.5 Summary of Literature

From the reviewed literature, some issues and gaps in the training of the VI in O&M were identified. First, there is need to train professionals in O&M training in Africa in
general and Rwanda in particular. Second, there is a need to examine whether specific standard curricula have been developed and whether it is being implemented in Africa. The role of governments providing mobility devices as passed in the UN convention has been discussed. This research examined whether the government of Rwanda takes the responsibility of equipping MRCB with required O&M aids.

It comes out clearly that, Orientation and Mobility has not been given priority in Africa. The literature review also shows that unlike in developed countries where technology has been embraced in training O&M, Rwanda, and other developing countries face challenges of high costs involved in acquiring electronic travel aids. In Rwanda, no studies have been done on O&M thereby making teaching and learning of O&M very difficult despite legal instruments adopted for its implementations. These gaps as discussed in the literature review provided a justification for this study. The research looked at the state of O&M training in Rwanda by examining the practices at MRCB which is the case study for this research. Professional qualification of O&M trainers was evaluated, the curriculum being employed was identified, the availability of mobility aids examined and all these were linked to the level of skills acquisition in O&M at MRCB.
CHAPTER THREE
RESEARCH DESIGN AND METHODOLOGY

3.0 Introduction

This chapter provided a description of the methods that were applied in conducting the research. The focus is on the research design, variables of the study, location of the study, target population, sample size, sampling procedures, research instruments, piloting of the study, reliability and validity of instruments, description of variables, data collection and analysis procedures, logistical and ethical consideration.

3.1 Research Design

The main purpose of the study was to analyze challenges trainees with visual impairment encounter in Orientation and Mobility: case study of Masaka Rehabilitation Center for the Blind, Kigali, Rwanda. The research adopted a case study research design since there is only one center training O&M in Rwanda. A case study approach helps in establishing a true picture of a situation, behavior or attitude of individuals and the community at large. For that reason, this was the most appropriate method for this study which sought to analyze factors associated with certain occurrences, outcomes and type of behavior.

The research study used questionnaires and interview schedules.

The research design used was a case study whereby Masaka MRCB was chosen by the research to conduct the research for the selected samples of people with visual impairment, trainers and administrators.
The questionnaires elucidated quantitative data while interviews were used to elicit qualitative data. The qualitative approach enabled the researcher to collect data in the actual context in which the phenomena would occur. As a result, it gave a more holistic picture. It was hence possible to provide a description of societal dynamics which include values, systems and perspectives within a given cultural context (Abagi, 1996). The approach was appropriate as a result of its high analytical content, and it was the best way of getting in-depth information including sensitive and personalized experiences which were unlikely to be obtained using other methods.

On the other hand, the quantitative method provided the advantage of responses to the same questions from a large number of people, and those responses were quantified for the conclusion to be drawn from them (Robinson, Shaver & Wrightsman, 1991). The quantitative approach was applied to a large number of O&M trainers and trainees. The quantified information summarized the results while at the same time it complemented the qualitative data. The above reasons form the basis for which the case study design was used. The design was the most appropriate for the study to obtain exhaustive and accurate accounts for analyzing challenges trainees with visual impairment encounter in orientation and mobility in Masaka Rehabilitation Center for the Blind.

3.2 Study Variables

3.2.1 Independent Variable:

It is a variable that usually stands alone and is not changed by the other variables been measured. The independent variables that guided the research were: the professional
qualification of trainers, O&M curriculum program, skills' acquisition of VI trainees and adequacy of resources for O&M training. This study evaluated how these independent variables impacted on the success of O&M training at MRCB.

3.2.2 Dependent Variable:
It is something that depends on other factors. In this study, the dependent variable was successful Orientation and Mobility (O&M) training. This dependent variable is influenced by the independent variables listed in 3.2.1 above.

3.3 Location of the Study
The study was conducted at Masaka Rehabilitation Center for the Blind in Kigali, Rwanda. The Center was chosen purposively since it is the first of its kind to be established in Rwanda. With its location in the capital city, it was expected that many students with VI from other parts of the country are enrolled since it is the only institution offering O&M services to persons with VI in Rwanda.

3.4 Target Population
The study’s target population consisted of 5 trainers, 135 trainees with VI and 2 administrators totaling to a population of 142 people, all from Masaka Rehabilitation Center for the Blind in Kigali, Rwanda.
3.5 Sampling Techniques and Sample Size

3.5.1 Sampling Techniques

The study used purposive sampling to select the respondents since the population was manageable. Therefore, 1 administrator, 4 trainers and 133 trainees were purposively sampled, sparing 2 trainees, 1 trainer and 1 administrator who were intentionally excluded for the purpose of piloting. MRCB was also purposively sampled since it is the only institution training O&M in Rwanda. Mugenda and Mugenda (2003) assert that if the target population is very small with a specified area of study, the researcher may sample the whole population since it is manageable. This notion is supported by Orodho (2009).

3.5.2 Sample Size

The sample size totaled up to 138 respondents comprising 4 O&M trainers, 133 trainees of O&M, and 1 administrator.

Table 3.1: Target Population and Sample Size

<table>
<thead>
<tr>
<th>Types of respondents</th>
<th>Population</th>
<th>Sample</th>
</tr>
</thead>
<tbody>
<tr>
<td>Teachers (Trainers of O&amp;M)</td>
<td>5</td>
<td>4</td>
</tr>
<tr>
<td>Students (Trainees on O&amp;M)</td>
<td>135</td>
<td>133</td>
</tr>
<tr>
<td>Administrator</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>142</strong></td>
<td><strong>138</strong></td>
</tr>
</tbody>
</table>
3.6 Research Instruments

The study used primary data collection instrument in the form of questionnaires and interview schedules to collect the data from the respondents. Primary data was the questionnaire method and interview schedules of data collection which are quite popular while secondary data was from journals, books, and documents from the center.

3.6.1 Questionnaire for the Trainees

The questionnaire administered to the trainees was made by open and closed ended questions. The questions were based on the objectives. The closed-ended questions were used because they conserve time, and they are easy to fill as well as easy to analyze as they are in an immediately usable form. The instrument was divided into five sections. The first section gathered information related to gender and category of their academic qualification.

Section two had Questions Related to O&M training. Section Three gather information based on Orientation and Mobility curriculum, Section Four on O&M resource availability while Section Five on O&M skills acquisition. A questionnaire was handy for the study considering its ease of use as an instrument for data collection. It is also cost effective and gives adequate time to the respondent to fill in and return to the researcher (Burman, 2002). These research tool was given to trainees, whereby the trainees’ assistant were reading for them and writing their answers.
3.6.2 Interview Guide for the Trainers

The interview guide was also divided into five sections. Section one gathered information related to gender. Section Two collected data on Professional of O&M trainers of the trainees with visual impairment. Section Three gathered information based on Orientation and Mobility curriculum, Section Four on O&M resource availability while Section Five on O&M skills acquisition. Interview schedule was administered to trainers to encourage the respondent to give an in-depth response without feeling held back. The interview was formed from the set objectives. The interview was conducted to the trainers whereby the research interviewed them with the prepared questions.

3.6.3 Interview Guide for the Administrator

This was another designed interview guide which was administered to the administrator. The interview guide was also divided into five sections. Section one gathered information related to gender and age. Section Two collected data on Qualification level of O&M trainers. Section Three gather information based on Orientation and Mobility curriculum, Section Four on Availability of O&M resources while Section Five on O&M skills acquisition. The use of the interview guide assisted the researcher to obtain an in-depth response without feeling held back. The interview was conducted to the administrators whereby the research interviewed them with the prepared questions.

3.7 Pilot Study

Before commencing the main study, a pilot study was conducted on the pre-selected respondents at the same center who were not involved in the actual study. The pilot study
enabled the researcher to determine the validity and reliability of the data collection instruments. Reliability which can be described as a measure of the degree to which research instruments yield consistent results was measured by pre-testing the questionnaire (Burman, 2002). A total of 2 trainees, 1 trainer and 1 administrator participated in the pilot study. The pilot study tested the logic, clarity, and objectivity of questions in the questionnaire and interview schedules. The test enabled the researcher to check whether the variables collected could easily be processed and analyzed.

3.8 Validity and Reliability

3.8.1 Validity

According to Franken and Wallen (1993), Validity refers to the appropriateness, meaningfulness and usefulness of the specific inferences researchers make based on the data they collect. The pilot study results aided the researcher in establishing content validity and reliability of the test instruments for the actual study. The instruments were supervised by the help of supervisors, lecturers, research assistance, and other experts. This helped to ensure that necessary information was collected and analyzed.

3.8.2 Reliability

Chava and Davi (1996) define reliability as a measure of the degree to which the research instruments yield consistent results or data after repeated trials. The reliability of the research instruments for this study was measured and calculated using the test-retest method. 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 instruments for the second test, the results were scored and correlation between the two tests was computed using Pearson's product moment correlation. A value of 0.78 was obtained which indicated a strong positive correlation between the two scores. Thus the instruments were considered reliable and accepted for the study.

3.9 Data Collection Procedure

Data collection procedure was based on the following stages:

a) Meeting the Respondents

Upon arriving at the institution on the first week of the study, the researcher sought permission from the administrator to collect data in the institution and permission letters from various relevant authorities were issued to the administrator. The researcher explained to the respondents the purpose of the study, assured them of confidentiality, and requested them to sign consent forms. Trainees were then given the adjusted questionnaire to fill. The researcher interpreted each item in the questionnaire. The researcher with the help of the four trained research assistants collected the completed questionnaire immediately.

b) Administration of the Interview Guides

During the third week interviews were conducted on the trainers and the administrator. The researcher had designed interview questions to both trainers and administrators. The researcher used her assistant to administer the interview where through the respondents consent, the results were recorded. At the end of the exercise, the researcher appreciated all the participants.
3.10 Data Analysis and Presentation

According to McNabb (2008), the most common method of reporting a descriptive research is by developing frequency distribution table, calculating percentages, and tabulating them appropriately. Quantitative data generated from the close-ended items in the questionnaire was analyzed using descriptive statistics such as frequency and percentages with the aid of Statistical Package for Social Sciences (SPSS) program. Frequency tables and bar graphs were used to present data. Qualitative data from the interview was pre-arranged, analyzed using relevant themes, and discussed in line with the research objectives.

3.11 Logistical and Ethical Considerations

3.11.1 Logistical Considerations

The researcher first sought for an introduction letter from Kenyatta University to go and carry out the research (see Appendix VI). Consent from the Rwanda Ministry of Education headquarters was then sought to ensure the researcher has a research permit authorizing the carrying out of the research in Rwanda. The provincial administration and MRCB administration in Kigali, Rwanda were contacted and a consent letter for collecting data obtained.

3.11.2 Ethical Considerations

Given the nature of the study and the current disability dimensions in Rwanda, the research participants were informed of the purpose of the study and that their participation was voluntary, giving room to withdraw in the study at any time they
wished to. They were also informed that adequate measures would be taken to protect their confidentiality by not indicating their names. Informed consent was obtained from all the respondents (see Appendix: II). This gave the participants freedom to choose whether to participate or not.
CHAPTER FOUR
PRESENTATION OF FINDINGS, INTERPRETATION AND DISCUSSION

4.0 Introduction

This chapter presents data findings on the implementation of orientation and mobility at Masaka Rehabilitation Centre for the Blind. Data are presented according to the four objectives of the study. Demographic information of the respondents is also analyzed. These data are presented in frequency distribution tables and in narrative format. The study objectives sought to:

i) Identify the challenges related to the professional qualification of the trainers of trainees of orientation and mobility at MRCB.

ii) Assess the availability of an appropriate curriculum on orientation and mobility for trainees with VI at MRCB.

iii) Determine the availability of resources for training orientation and mobility for trainees with VI at MRCB.

iv) Assess the skills acquisition in O&M among trainees with VI at MRCB.

Data are analyzed using qualitative and quantitative methods. These data was obtained from the research at MRCB. A total of 138 respondents (4 O&M trainers, 133 trainees of O&M, and 1 administrator) participated in the study.
4.1 Demographic Information of the Respondents

4.1.1 Distribution of the Respondents by Gender

Table 4.1 shows the gender distribution of the respondents.

Table 4.1: Gender distribution of the respondents

<table>
<thead>
<tr>
<th>Respondents</th>
<th>Female</th>
<th>Male</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>F %</td>
<td>F</td>
</tr>
<tr>
<td>Trainees</td>
<td>48</td>
<td>36</td>
</tr>
<tr>
<td>Trainers</td>
<td>2</td>
<td>50</td>
</tr>
<tr>
<td>Administrators</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

Source: Researcher 2016

Findings in Table 4.1 indicate that majority (64%) of the trainees were male female while only 48 (36%) of the trainees were female. For the trainers, there were four of them; 2 male and 2 female each representing 50%. The administrator was a male. In total there were 138 respondents: 50 females and 88 males respectively. Equal gender representation was adhered to when one considers the total number of male trainees in relation to the number of female trainees at MRCB.
4.1.2 Distribution of the Respondents by Age

Table 4.2: Age of Respondents

<table>
<thead>
<tr>
<th>Age in years</th>
<th>Trainees</th>
<th></th>
<th>Trainers</th>
<th></th>
<th>Administrator</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>F</td>
<td>%</td>
<td>F</td>
<td>%</td>
<td>F</td>
<td>%</td>
</tr>
<tr>
<td>11-20</td>
<td>22</td>
<td>16.5</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>21-30</td>
<td>48</td>
<td>36.1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>31-40</td>
<td>63</td>
<td>47.4</td>
<td>4</td>
<td>100</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>41-50</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>100</td>
</tr>
<tr>
<td>Total</td>
<td>133</td>
<td>100</td>
<td>4</td>
<td>100</td>
<td>1</td>
<td>100</td>
</tr>
</tbody>
</table>

Source: Researcher, 2016

Table 4.2 presents the age distribution of the respondents at MRCB. The respondents lie in the age groups 11-20 years to 41-50 years. The age group of 31-40 years consists of majority of which was represented by 46.8% of the total trainees. The findings further show that the age group of 21-30 years had 48 trainees who represented 36.1% of all the trainees. However, none of the trainees fell in the age group of 41-50 years. The trainers fell in the group of 31-40 years whereas the administrator is in the age bracket of 41-50. Examining all respondents together, the age bracket of 31-40 years holds most of the respondents. The age zone of 41-50 years had the lowest number of respondents having only one followed by 11-20 years.
Most of the respondents who took part in this study were young adults and for the trainees with visual impairment, the high number of young adults seeking O&M skills can be used to explain the increase in the need for independence when people grow up. Persons above the adult legal age are highly expected to exhibit a high level of independence as they move around possibly undertaking their economic activities and as they move high on the social ladder where they are no longer considered to be children who need to be provided for but adults who should be able to take care of themselves.

4.1.3 Distribution of Respondents by Academic Level

Table 4.3: Academic Qualification of Respondents

<table>
<thead>
<tr>
<th>Respondents</th>
<th>Qualification</th>
<th>Frequency</th>
<th>Parentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Trainees</td>
<td>Unclassified</td>
<td>39</td>
<td>28%</td>
</tr>
<tr>
<td></td>
<td>A2</td>
<td>52</td>
<td>38%</td>
</tr>
<tr>
<td></td>
<td>A0</td>
<td>42</td>
<td>30%</td>
</tr>
<tr>
<td>Trainers</td>
<td>A2</td>
<td>3</td>
<td>2.1%</td>
</tr>
<tr>
<td></td>
<td>A0</td>
<td>1</td>
<td>0.7%</td>
</tr>
<tr>
<td>Administrator</td>
<td>A0</td>
<td>1</td>
<td>0.7%</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>138</td>
<td>100%</td>
</tr>
</tbody>
</table>

Source: Researcher 2016

From the findings in Table 4.3 it can be deemed that majority 52(38%) of trainees undertaking training in orientation and mobility had the secondary level certificate. The findings further indicate that 39 (28%) of the trainees are unclassified which means that
they did not attend school. The reason of having such number of uneducated trainees is due to the historical background of the country. People with disability especially people with visual impairments were not given value in the society hence they were denied the chance to study like other people. With the new education policy of inclusive education, some people with visual impairment were given chance to study, hence Masaka training centre has 42 trainees who have completed their university studies.

4.2 Challenges Related to the Professional Qualification of Trainers of in O&M at MRCB

Objective one sought to identify the challenges related to the professional qualification of the trainers of trainees of orientation and mobility at MRCB. This objective was achieved by asking different questions to both trainees, trainers and administrator. The findings are summarized in the tables below.

Table 4.4: Academic Qualification of Trainers

<table>
<thead>
<tr>
<th>Qualification</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>A2</td>
<td>3</td>
<td>75%</td>
</tr>
<tr>
<td>A0</td>
<td>1</td>
<td>25%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>4</strong></td>
<td><strong>100%</strong></td>
</tr>
</tbody>
</table>

*Source: Researcher 2016*

The above data shows that trainers of O&M at MRCB completed their secondarily school education and one completed the university studies. Majority (75%) of the trainers
completed their secondary school. However, only one trainer was a graduate in higher learning institution but his qualification is not related to the field on O and M.

Going by the definition of O&M as advanced by (ACVREP 2014) where the training has to involve helping the trainee with visual impairment use the other remaining senses to establish their position as well as locate their destination, then the trainees at MRCB aren’t getting exactly this. This can best be administered by trainers who have undertaken a professional course in O&M.

The reasons of not having the qualified trainers are due to lack of financial means to hire such competent and professional trainers. Another reason is that O and M is not taught in Rwandan universities as options to have big number of graduates who specialized in this field. The level of education of the trainers affects the quality of the training they provide.

Basing on the respondents views, the training offered at MRCB is not of good quality since the trainers are not professionally trained.

Table 4.5: Working Experience of Trainers

<table>
<thead>
<tr>
<th>Experience</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt;2 years</td>
<td>1</td>
<td>25%</td>
</tr>
<tr>
<td>2-5 years</td>
<td>2</td>
<td>50%</td>
</tr>
<tr>
<td>6-10 years</td>
<td>1</td>
<td>25</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>4</strong></td>
<td><strong>100%</strong></td>
</tr>
</tbody>
</table>

*Source: Researcher 2016*
Findings in Table 4.5 indicate that at least more than half of the trainers have experience of 2 years and more. This implies that experience is a significant factor to quality of training in orientation and mobility in the center. Even though the trainers were not professionally trained, this shows that they are not at least new in the field of training people with visual impairments in O and M. Only one trainer, corresponding to 25% of the trainers, has got less than two years of working experience in O and M field.

Table 4.6: Trainer’s response when asked about whether they were trained on orientation and mobility

<table>
<thead>
<tr>
<th>Response</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>1</td>
<td>25%</td>
</tr>
<tr>
<td>No</td>
<td>3</td>
<td>75%</td>
</tr>
</tbody>
</table>

The findings in the table above shows that only 25% of the trainers, referring to one trainer, have never received training on O and M. The remaining 75% of the trainers have never been trained on Orientation and Mobility. Trainings are one way of capacity building for employees to improve the quality of the service they provide hence, there is a strong need for these trainers to get trainings in order to improve the quality of the training they provide.

The financial problem of Masaka training center is the major reason for these trainers missing trainings in O and M. In the interview with the administrator he said “Ikigo nta
"bushobozi buhagije gifite bwo gushakira amahugurwa abarimu." Meaning that the institution does not have capacity to provide trainings to trainers. Once these trainers get trainings on O and M, there is a chance that the quality of trainings they provide can also be improved.

**Table 4.7: Trainners views on their own professional capacity in training people with visual impairments in O and M**

<table>
<thead>
<tr>
<th>Statement</th>
<th>SA</th>
<th>A</th>
<th>N</th>
<th>D</th>
<th>SD</th>
<th>TOTAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Trainers’ have enough experience in O and M.</td>
<td>F</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>%</td>
<td>0</td>
<td>25</td>
<td>0</td>
<td>50</td>
<td>25</td>
</tr>
<tr>
<td>Trainers’ qualification relates to O and M.</td>
<td>F</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>3</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>%</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>75</td>
<td>25</td>
</tr>
<tr>
<td>I use the right method matching with learners disability</td>
<td>F</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>%</td>
<td>25</td>
<td>0</td>
<td>0</td>
<td>50</td>
<td>50</td>
</tr>
<tr>
<td>Trainers master the language of instruction</td>
<td>F</td>
<td>3</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>%</td>
<td>75</td>
<td>25</td>
<td>0</td>
<td>0</td>
<td>100</td>
</tr>
<tr>
<td>Trainers received enough trainings on O and M</td>
<td>F</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>%</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>25</td>
<td>75</td>
</tr>
<tr>
<td>I correctly use the teaching Aids</td>
<td>F</td>
<td>1</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>%</td>
<td>25</td>
<td>0</td>
<td>25</td>
<td>50</td>
<td>25</td>
</tr>
<tr>
<td>The need for trainings on O and M.</td>
<td>F</td>
<td>4</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>%</td>
<td>100</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>100</td>
</tr>
</tbody>
</table>

Referring to the information represented in the table above, the majority of trainers (50%) disagreed that they have enough experience in O and M training. None of them agreed
the statement. This shows that trainers themselves are aware that they lack some skills in relation the O and M. About having been trained on O and M, the majority of the trainers (75%) disagreed the statement. None of them (0%) agreed to have been trained on O and M. This shows that they have that need of receiving much training on O and M.

When they were asked about whether they need training on O and M, the majority (100%) of the respondents strongly agreed that they need trainings. This shows that there is a strong need of trainings for trainers at Masaka training center.

4.2.1 Administrator’s View when Asked the Number of Trainers who are Professionally Trained in O and M in the Institution

When asked about professional development of trainers, the administrator of the institution said that none of the trainers was professionally trained for Orientation and Mobility. The fact that 100% of all the trainers were not professionally trained, this has a negative effect on the quality of the training they provide. This can have an effect on the period the training lasts for since the trainers don’t really master what they do.

During an interview with the administrator on whether the MRCB were qualified to train on O&M with respect to Special Needs Education Universal Standards, he said,

\[\text{\ldots\ldots\ldots.mmm\textbf{m}}\text{h not all instructors are qualified to conduct the training but this is taken care of by proper coordination based on the training methods and consultation with the administration.}\]
4.3 Availability of an Appropriate Curriculum for O&M

Objective two Sought to assess the availability of an appropriate curriculum on orientation and mobility for trainees with V.I at MRCB. With regards to the availability of an appropriate curriculum on O&M, this research established that no curriculum has been developed in Rwanda. The teaching at MRCB can therefore be perceived as following some standards determined by the trainers and unique to the institution. Orientation and Mobility at MRCB is allocated a four hour lesson on Friday morning. There is one lesson every week. The O&M lesson mainly involves outdoor activities where the trainees practice on the use of the white cane.
Table 4.8: Trainers views on the availability of the curriculum on O and M for trainees with VI at MRCB

<table>
<thead>
<tr>
<th>Statement</th>
<th>SA</th>
<th>A</th>
<th>N</th>
<th>D</th>
<th>SD</th>
<th>TOTAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>The center has the curriculum used when training</td>
<td>F</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>%</td>
<td>0%</td>
<td>25%</td>
<td>0%</td>
<td>25%</td>
<td>50%</td>
<td>100%</td>
</tr>
<tr>
<td>The curriculum is adapted to the level of trainees</td>
<td>F</td>
<td>0</td>
<td>1</td>
<td>1</td>
<td>3</td>
<td>0</td>
</tr>
<tr>
<td>%</td>
<td>0%</td>
<td>25%</td>
<td>25%</td>
<td>75%</td>
<td>%</td>
<td>100%</td>
</tr>
<tr>
<td>The curriculum is assessed and revised.</td>
<td>F</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>3</td>
</tr>
<tr>
<td>%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
<td>25%</td>
<td>75%</td>
<td>100%</td>
</tr>
<tr>
<td>The curriculum used is positively appreciated</td>
<td>F</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>%</td>
<td>0%</td>
<td>0%</td>
<td>25%</td>
<td>25%</td>
<td>50%</td>
<td>100%</td>
</tr>
<tr>
<td>The time allocated to O and M is enough.</td>
<td>F</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>%</td>
<td>25%</td>
<td>0%</td>
<td>0%</td>
<td>25%</td>
<td>50%</td>
<td>100%</td>
</tr>
<tr>
<td>There is a need to change the curriculum</td>
<td>F</td>
<td>3</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>%</td>
<td>75%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
<td>25%</td>
<td>100%</td>
</tr>
</tbody>
</table>

Source: Researcher 2016

Referring to the table above, the majority of the respondents (50%) disagreed that statement which was asking whether they have a curriculum to use when training. None of the trainer agreed that they have a curriculum for O and M. This shows that there is a need to develop a curriculum to use when training for O and M. For the fact that one respondent (25%) agreed that they have a curriculum, this shows that they drafted the materials to use which is not professionally recognized as a curriculum.
When asked whether they assess and revise the curriculum they use, 75% of the respondents disagreed the statement. This shows that even the so called curriculum they use is never assessed and revised to meet the trainee’s needs.

About the appreciation of the curriculum they use, none of the respondents agreed to the statement but the majority (50%) of the respondents strongly disagreed the statement. This shows that even the trainers themselves recognize the need of having the curriculum to follow when training in O and M.

When asked on whether the time allocated to O and M is enough, the majority of the respondents (50%) disagreed the statement. This shows that there is also a need to add more time to the period given to the lesson of O and M.

For the statement of revising the curriculum, the majority of the respondents (75%) strongly agreed that the curriculum need to be changed. They are thirst to have a curriculum to follow when training in O and M.

4.3.1 Administrator Views on Ranking the Quality of the Programme Used By the Center During the Training

When the administrator was asked to rank the quality of the programme offered at Masaka training center, he did not say that it was neither excellent nor good but he simply said that it is fair. This really shows that even the administration does not appreciate the quality of the curriculum used at the institution. When the administrator was asked this question he said, *Yes, we realized the need of having the new curriculum*
which contain the new methods of training the blind people but as you know it requires money and the involvement of the government. So, we believe that it will be developed . . . . . . . .

From this speech of the administrator, there is no exact time when the curriculum will be developed but as he said, the administration realized that they don’t have a curriculum to train people with visual impairments.

4.3.2 Administrator’s View on Time Allocation for O&M

During the interview, the administrator agreed that Orientation and Mobility training should be given the same importance and attention in centers or schools for the Visually Impaired as academic subject. It was however warned that,

...This should only happen with the full support of the government because it is the only way to achieve a significant impact in the trainees’ lives.

The other argument was that recognition of O&M in the curriculum will give it more importance as it will be handled more seriously just as other examinable subjects.

The time on the timetable allocated for O&M which is on Friday morning was justified by the trainer respondents,

...in the morning trainees are fresh and ready to learn as well as the temperature being quite as opposed to afternoons.

The low temperature favors the long walks the trainees and their trainers are involved in.
Finding of the interview with the administrator also confirmed this time schedule. However, planning is still needed to be adjusted by the trainers. The administrator complained that,

*Even though Orientation and Mobility is allocated study time in the curriculum and timetable, some classes go without meeting the training objectives due to sluggish preparation for training.*

The administrator further claimed that,

*Despite the fact that resources might be readily available to trainees with visual impairment, there is no tangible follow up mechanisms for the use of O&M resources. Furthermore, the resources for O&M are not adequate for the high number of trainees at MRCB?*

The administrator suggested that,

*The institution ought to remunerate qualified trainers who have professional qualifications in O&M training and the existing few trainers should be given opportunities to attend in-service training in order to improve their skills and facilitate the implementation of Orientation and Mobility in the center.*

In-service training is significant determinant of improved training in O&M

### 4.4 Availability of Resources for Training O&M

Objective three Sought to determine the availability of resources for training orientation and mobility for trainees with V.I at MRCB. The findings indicate that trainees at MRCB
mainly relied on white canes and sighted guides for their mobility. The sighted guide was mainly used where friends to the trainees with visual impairment come for them when going for instance to church. The research however established that these sighted guides did not form part of the O&M training but instead, the white canes were majorly used.

The institution however lacked an adequate supply of these white canes. This was reiterated by all the other respondents. A clear explanation of this problem is evident in the fact that the available old white canes were only used during the O&M class and thereafter taken back to the stores. The government did not take part in the provision of the resources and the few available had been donated a long time ago by nongovernmental organizations.

The research further established that the available resources were also too old. Trainers also observed inadequacy of the O&M resources.

The trainees noted,

...Dukoresha inkoni z’umweru kuwa gatanu mu masaha y’iryo somo ryo kwiyobora gusa, cyangwa habaye indi mpamvu idasanzwe yo kufya hanze y’ikigo urugero nko kwa mu ganga. (We only use the white canes on Fridays during the O&M class or during an emergency situation like an individual seeking permission to go outside the School like the hospital).

It is much worrying to learn that even in the School, they use sticks on the other days when O&M isn’t being taught. After training, these trainees with visual impairment
stated that they leave for their homes to continue using sticks in place of the white cane just as they deed before the training. The unanimous agreement on the inadequacy of resources was shocking and places a call for more intervention measures.

Table 4.9: Trainees views on the availability of resources for training orientation and mobility at MRCB

<table>
<thead>
<tr>
<th>Statement</th>
<th>SA</th>
<th>A</th>
<th>N</th>
<th>D</th>
<th>SD</th>
<th>TOTAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Masaka center has enough tools to use when training</td>
<td>F</td>
<td>3</td>
<td>5</td>
<td>10</td>
<td>50</td>
<td>65</td>
</tr>
<tr>
<td></td>
<td>%</td>
<td>2.2%</td>
<td>3.7%</td>
<td>7.5%</td>
<td>37.5%</td>
<td>48.8%</td>
</tr>
<tr>
<td>Teachers have enough skills in using the tools.</td>
<td>F</td>
<td>2</td>
<td>1</td>
<td>12</td>
<td>50</td>
<td>68</td>
</tr>
<tr>
<td></td>
<td>%</td>
<td>1.8%</td>
<td>0.7%</td>
<td>8%</td>
<td>37.5%</td>
<td>49%</td>
</tr>
<tr>
<td>The tools help students in their learning</td>
<td>F</td>
<td>10</td>
<td>20</td>
<td>18</td>
<td>25</td>
<td>60</td>
</tr>
<tr>
<td></td>
<td>%</td>
<td>7.5%</td>
<td>14.4%</td>
<td>13.5%</td>
<td>18.8%</td>
<td>43.4%</td>
</tr>
<tr>
<td>The center needs more materials to use when training.</td>
<td>F</td>
<td>60</td>
<td>50</td>
<td>3</td>
<td>5</td>
<td>10</td>
</tr>
<tr>
<td></td>
<td>%</td>
<td>43.4%</td>
<td>37.5%</td>
<td>2.2%</td>
<td>3.7%</td>
<td>7.5%</td>
</tr>
<tr>
<td>Trainers need more training in using the available instruments.</td>
<td>F</td>
<td>6</td>
<td>30</td>
<td>15</td>
<td>17</td>
<td>69</td>
</tr>
<tr>
<td></td>
<td>%</td>
<td>4.2%</td>
<td>22.5%</td>
<td>11.2%</td>
<td>12.8%</td>
<td>50.9%</td>
</tr>
</tbody>
</table>

**Source: Researcher 2016**
Referring to the table above, the maximum respondents (48.8%) strongly disagreed that Masaka training center has enough training tools. When asked whether the tools used during the training facilitates them, the maximum respondents 43% disagreed the statement. For the statement of whether the center needs the new and modern tools for O and M training, the maximum of the respondents (48.9%) strongly agreed the statement.

However, when trainees were asked whether there is a need for trainers to be trained on the use available resources, the majority of the respondents (50.9%) strongly disagreed. This is because they only use the white canes when training which they think it is not difficult to use when training people with visual impairments.

Basing on the information got from the trainees, it is obvious that Masaka training center doesn’t have enough tools to train in O and M. The only tools they use are white canes which are not even enough for all the trainees. This training center needs to have the modern training tools to improve the quality of training they provide for people with visual impairment.
Table 4.10: Trainers views on the availability of resources for training orientation and mobility at MRCB

<table>
<thead>
<tr>
<th>Statement</th>
<th>SA</th>
<th>A</th>
<th>N</th>
<th>D</th>
<th>SD</th>
<th>TOTAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Masaka center has enough and modern tools to use when training</td>
<td>F</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>%</td>
<td>0%</td>
<td>25%</td>
<td>0%</td>
<td>25%</td>
<td>50%</td>
</tr>
<tr>
<td>Trainers have enough skills in using the available tools.</td>
<td>F</td>
<td>3</td>
<td>1</td>
<td>1</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>%</td>
<td>75%</td>
<td>25%</td>
<td>25%</td>
<td>0%</td>
<td>%</td>
</tr>
<tr>
<td>The training tools facilitates the trainees during the training</td>
<td>F</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
<td>25%</td>
<td>75%</td>
</tr>
<tr>
<td>The center needs more materials to use when training.</td>
<td>F</td>
<td>3</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>%</td>
<td>75%</td>
<td>0%</td>
<td>0%</td>
<td>25%</td>
<td>0%</td>
</tr>
<tr>
<td>Trainers need more training in using the available instruments.</td>
<td>F</td>
<td>3</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>%</td>
<td>75%</td>
<td>0%</td>
<td>0%</td>
<td>25%</td>
<td>0%</td>
</tr>
</tbody>
</table>

Referring to the table above, the majority of trainers (50%) strongly disagreed the statement which was saying that Masaka training center has enough and modern tools to use when training. They simply said that the only available training tools they use are the white canes which sometimes are not even enough for all the trainees.
When asked whether the center needs more and modern materials, the majority of the respondents (75%) strongly agreed. This shows that there is a strong need for Masaka training center to have new training materials.

About whether trainers need more training to use the available materials, the majority of the respondents (75%) strongly disagreed. This is because they only use the white canes when training which they believe it doesn’t need more skills to use when training people with visual impairments.

4.4.1 Administrator’s Views on the Availability of Resources

When the administrator was asked whether MRCB was qualified to train O&M as per special needs education standards, he stated,

...The institution lacks adequate financial resources to offer necessary material and equipment for proper training. The institution operates as a private institution with its staff paid by Rwanda Union of the Blind. The government doesn’t offer any support.

The respondent however noted that despite the challenges and the low quality of training that trainees received, it was still better that way than without the institution since the center provided for some sense of support for persons with VI who had initially been abandoned in their homes.
As for the criteria used to select trainers for the institution, the researcher learnt that the employer only considers persons who have undertaken their secondary education since they cannot afford to pay graduate professionals.

...We don’t have finances to employ certified trainers. This is why we rely on services of those who have learned to use the white cane and not necessarily trained professionals.

However for the period stretching from 2005, only four trainers have been obtained hence very few instances of recruitment. Furthermore, the trainers aren’t employed on permanent basis but on contract.

4.5 Skills Acquisition in O&M amongst Trainees with Visual Impairment

Objective four of this research Aims at assessing the skills acquisition in O&M amongst trainees with VI at MRCB.

The O&M training at MRCB takes a period of 6 months after which the trainee is expected to go back to his/her home. The six months consist of two terms which have a break of a few weeks.

This training consists of O&M and Braille as well as the other vocational courses like animal husbandry and crop farming. Of the 133 trainees with visual impairment, 37 were in their third term whereas 96 were within their limits of six months.
The limited number of trainees within their third term is due to the strict policy in the institution to ensure that trainees finish the training within the two terms limit. The attempt to strictly adhere to this policy of two terms limit is explained by the respondents,

...a need to provide a chance for the rehabilitation for a larger number of persons with visual impairment in Rwanda.

This is evident in the high number of applications received to join the institution during every intake. The institution is however limited in both physical and human resources hence can only serve a certain number of trainees at a time.

From the responses obtained, various skills are attained by trainees with visual impairment. These include the ability to walk confidently, independently, cross streets, avoid knocking objects and to avoid falling in ditches and wholes. Trainees who are partially sighted also undertook the O&M training when blindfolded. Most of them aren’t willing to undertake the training but it is compulsory for all trainees in the institution. Two of the respondents who were low vision noted,

...Ntabwo dufata ibyigishwa muri iryo somo ryo kwiyobora. (“We don’t apply the skills learned in O&M”).

One of them however acknowledged’

Nzakoresha ubu bumenyi bwo kwiyobora nahumye burundu gusa mfite ubwoba ko n’ubundi ariko bizaba. (I will have to use the skills since my sight is deteriorating and I feared for a complete loss of my sight).
In an interview, the administrator reported,

...training of O&M to learners with visual impairment enabled them obtain both perceptual and conceptual information about their environment. The lack of sight is compensated for by information obtained via other senses.

The skills acquired at MRCB however fall short of other important proficiencies that O&M training ought to provide. The ACVREP for instance argues that the role of O&M training is to enable a person with visual impairment utilize all the other remaining senses to locate his position in relation to others or objects and maneuver in an environment, (ACVREP, 2014).

Comparing the above listed skills as presented by ACVREP with the skills listed by respondent trainees at MRCB, it comes out clearly that the latter concentrates on the use of the white cane as the only O&M resource. Similarly, the training at MRCB can be explained as being overtly kinesthetic with little concern for the mental concept of O&M and further on, little concern for the role of other remaining senses like olfactory and auditory in O&M.
Table 4.11: Trainers and trainees rating the quality of O&M skills acquired by trainees

<table>
<thead>
<tr>
<th>Rating</th>
<th>Trainees</th>
<th></th>
<th>Trainers</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Frequency</td>
<td>Percentage</td>
<td>Frequency</td>
<td>Percentage</td>
</tr>
<tr>
<td>Poor</td>
<td>80</td>
<td>60.1%</td>
<td>1</td>
<td>25%</td>
</tr>
<tr>
<td>Fair</td>
<td>30</td>
<td>22.5%</td>
<td>2</td>
<td>50%</td>
</tr>
<tr>
<td>good</td>
<td>13</td>
<td>9.7%</td>
<td>1</td>
<td>25%</td>
</tr>
<tr>
<td>Excellent</td>
<td>10</td>
<td>7.5%</td>
<td>0</td>
<td>0%</td>
</tr>
<tr>
<td>Total</td>
<td>133</td>
<td>100%</td>
<td>4</td>
<td>100%</td>
</tr>
</tbody>
</table>

Source: Researcher 2016

Table above indicates the rating of Usefulness of skills acquired by trainees. The majority of respondents (60.1%) said that the training received is poor. It is important to say that 25% of the trainers also said that the quality of training is poor.

The finds show that none of the trainees and trainers ranked this quality as Excellent. This shows that much is to be done at Masaka training center to improve the quality of training. The problem of limited availability of resources and lack of enough training for the trainers was their reason for not rating skills acquisition as excellent.

This position taken by the trainers at MRCB can be validated through considering the various elements that make up standard O&M training classes. The Ontario Childhood Setting for instance outlines the components of O&M training as consisting training on safety, auditory skills, problem solving and use of assistive technology, (Ontario Childhood Setting 2007). Lahav and Mioduser go ahead to bring a mental perspective of
O&M by suggesting that mental mapping of spaces, and of the possible paths for navigating spaces, is essential for the development of efficient orientation and mobility skills, (Lahav & Mioduser, 2002). As for MRCB, O&M classes can be described as lessons on white cane use.

4.5.1 Follow up after O&M Training

An issue about follow up mechanism was raised in the course of the research. Trainees were in support of the view that follow up mechanisms should be put in place to ensure they are given more O&M training services and resources availed even after completing their training.

The counter argument was however that it was hard since the trainees were spread all over the country hence it would be expensive and hard to offer follow-up services. The support services available were around economic empowerment of these trainees where they are asked to form associations which are then helped to run projects involving agriculture using skills obtained.

During the interview with the administrator, he said, OOhhhh, ni igitekerezo cyiza gukomeza gukurikirana imibereho y’abanyeshuri bacu nyuma y’amasomo ndetse tukanabafasha kwiteza imbere, ariko ibi byadusaba amafaranga menshi kuko baba bari mumpande zitandukanye. Gusa twabagira inama yo kwibumbira mu mashyirahamwe tukabakorera ubuvugizi.....(Ooooh, it is a good I idea to keep on following up our former trainees but this requires a lot of money as they are allocated in the different corners of
the country. We would advise them to be in associations for the institution to make advocacy to different partners.)

4.6 Chapter Summary

This chapter presented data analysis, interpretation and discussion of the outcome. Data was collected from Masaka Rehabilitation Center (MRCB), after which it was categorized, ordered, coded and then presented according to four themes rising from the four objectives of this study. The data was presented in frequency distribution tables and percentages.

The results of the research established that lack of professional qualification in O&M amongst trainers at MRCB was detrimental to the training in the institution. Secondly, there lack a standard curriculum for O&M at MRCB despite the overwhelming consent by the respondents that it was vital in guiding the training process. The third objective established that MRCB lacks enough resources necessary for O&M training and that this was a challenge to the trainees acquiring O&M skills. Finally, the research established that various O&M skills were acquired by trainees at MRCB although views on the level of acquisition of these skills and the usefulness of the skills acquired varied from respondent to respondent.
CHAPTER FIVE

SUMMARY, CONCLUSION AND RECOMMENDATIONS

5.0 Introduction

This chapter presents the summary, conclusions and recommendations for this research. It goes ahead to suggest other elements of study which can be explored in the area of O&M.

5.1 Summary of the Findings

This study on challenges faced in the training of orientation and mobility was carried out at Masaka rehabilitation center for the Blind. The main aims of the study were to identify challenges related to the professional qualification of trainers at MRCB; assessing the availability of a curriculum for O&M at MRCB; evaluating the availability of O&M resources at MRCB and assessing skills acquisition in O&M at MRCB.

5.1.1 Challenges Related to the Professional Qualification of Trainers at MRCB

This research found out that no trainer at MRCB is specifically qualified in the field of O&M. This is because none of the trainers indicated to have acquired formal training. Looking at ACVREP which is a body that certifies O&M trainers, these trainers have to undergo specific training so as to be able to acquire knowledge and skills to be able to train the trainees in complex O&M skills. For instance, trainers at MRCB only teach on the use of the white cane yet other areas like the use of the guide dogs, sighted guides, electronic mobility devices and mapping are left out.
Another challenge arose from the high trainee-trainer ratio. The research established that there were 135 trainees attending the O&M class and that all these where being served by three trainers. This meant one on one teaching was limited to only a few trainees. Not all the trainees are able to receive effective instruction.

5.1.2 Availability of a Curriculum for O&M

In the developed countries like the USA, various bodies have developed a curriculum for O&M. This isn’t however the case in most developing countries. Rwanda is one of those countries where there isn’t a standard curriculum for O&M. The trainers at MRCB employed their own curriculum which dwelt around the use of the white cane. Looking at the various skills outlined in the certification handbook of ACVREP, then it comes out clearly that a standard O&M curriculum should be wide. It should go beyond the use of the white cane to developing skills on problem solving for instance when one is lost, use of other senses like the sense of smell and hearing in mobility, developing skills on how to request for assistance or turn down offers for assistance and even being able to interpret tactile maps. For the partially sighted, O&M should enable them to be able to use effectively the remaining sight. This is however not practiced since trainees with some sight are blindfolded during an O&M lesson. It therefore comes out that the curriculum followed at MRCB isn’t standard considering its narrow scope as well as other practices which aren’t applicable as per the standard O&M curriculum.
5.1.3 Availability of O&M Resources

The main prosthetic device used in O&M training at MRCB is the white cane. Conventionally, this is the most common device for mobility used by persons with Blindness. Despite being a vital resource, it is highly limited in supply at MRCB. The available white canes are also very old as they have been used for a long time without replacement. The scarcity of the white cane limits the trainees’ ability to acquire O&M skills since the white canes are only availed to them during the training session after which they are taken back in to the store. The students use sticks on the other days and even at home when they finish their training. The lack of O&M resources can be seen as a setback to the whole training process since it is worrying for one to be trained on white cane use if they will never be able to obtain the white cane and put into practice what they had been taught. The value of skills acquired is in question if the resources necessary to put the skills into practice aren’t available.

5.1.4 Skills Acquisition in O&M

This research established that various skills where acquired by trainees at MRCB. These skills include: ability to detect and avoid falling into holes, avoid knocking objects and ability to cross roads. Although these and other skills acquired in O&M at MRCB are helpful, they are not the ultimate expertise that a trainee in an O&M class can attain. Training in other elements of mobility is necessary.

The research also established that the time spent to acquire O&M skills varied from one trainee to the other. Generally, there were fast learners and slow learners. The two terms
limit for the training can therefore not be considered to be adequate for all trainees since even these individuals with blindness aren’t homogeneous but exhibit varied abilities as well as limitations.

5.2 Implications of the Study

The study established that MRCB offers O&M services to trainees with visual impairment. The training isn’t however up to the standards of orientation and mobility as advocated by professionals in special needs education. To offer standard training in O&M MRCB ought to put various considerations into account.

These include:

1. The institution has to employ qualified trainers who have professional qualifications in O&M training.
2. The existing trainers require some in-service training in the field of O&M to ensure that their teachings are in-line with the O&M standards.
3. More trainers of O&M have to be employed to help lower the high trainee trainer ratio.
4. More time to be allocated for O&M in the time table to ensure that trainees receive one on one instruction.
5. MRCB should adopt a standard O&M curriculum which meets the SNE standards.
6. MRCB should reach to the government and other donors for resources used in O&M.
7. The O&M training should be diversified to include training on the use of more O&M resources.
5.3 Conclusion

This study concludes that O&M training at MRCB imparts important O&M skills on trainees with visual impairment. The training however fails to meet the required O&M standards in special needs education due to various challenges. These challenges include: lack of professionals qualified to train O&M; lack of a standard curriculum to guide O&M training at MRCB; lack of adequate and diverse resources required in the training of O&M; and unresponsiveness to individual differences amongst trainees with visual impairment undertaking O&M training.

5.4 Recommendations

Considering the findings of this study, the following recommendations were made to help alleviate challenges faced by trainees of O&M at MRCB. The administration at MRCB should be flexible to allow more time for trainees who aren’t able to master O&M skills within the set two terms limit.

5.4.1 Recommendations for the Government of Rwanda

1. The government of Rwanda through the ministry of education should work in collaboration with the department of special needs education and curriculum development to come up with a standard curriculum for orientation and mobility. The government can work with bodies like ACVREP and the National Federation for the Blind to facilitate the development of an effective curriculum. A standard curriculum is required to ensure that O&M classes are diversified to include training on the use of more O&M resources.
2. The government should also ensure that O&M is included in the timetables of special Schools for learners with visual impairment. This would help more persons with visual impairment to acquire O&M skills during their time in School. This would not only decongest the single training center available but also will it ensure that individuals with visual impairment acquire these important skills early enough in life.

3. The government of Rwanda should come out to offer funds necessary for the availability of O&M resources.

5.4.2 Recommendations for MRCB

1. Masaka rehabilitation center has to prioritize the employment of qualified O&M trainers as well as training the available trainers to improve their knowledge and skills in O&M. This will mean the institution sourcing funds to pay qualified professionals. On the same line, the number of professionals employed should always be able to much the desired ratio. O&M trainers should be adequate to meet the group limit of ten students. Similarly, more O&M lessons should be set aside on the School timetable to allow for more one on one teaching in O&M.

2. The institution should also develop grunt proposals so as to obtain funds to purchase various O&M resources for trainees. The institution should also consider setting up of a workshop where repairs can be made on the O&M resources to ensure that those that for instance break down are not thrown away. This could make the resources serve for a longer period. MRCB should also consider raising enough resources like the white cane so that those who successfully finish their training obtain a piece so that they don’t go home without the important mobility device.
3. With regards to improving skills acquisition, the administration at MRCB should consider reviewing the two terms limit for trainees enrolled at the institution. Graduation from the institution especially from an O&M class should be guided by trainees’ mastery of O&M skills. This is the best way to take care of trainees with visual impairment who may acquire O&M skills at a slower pace. Doing this will help ensure that trainees from MRCB acquire full knowledge and skills in O&M as per the training offered.

4. To improve skills acquired, the curriculum at MRCB should be standardized to make it encompass all areas in O&M. Training on the use of various senses like hearing to locate one’s position should be introduced. The use of human guides and guide dogs should also be introduced for willing and interested trainees. Interpretation of tactile maps and use of electronic devices should form part of the O&M training. This will immensely increase O&M skills acquired by trainees at MRCB.

5. As suggested by various trainees at MRCB, follow up mechanisms should be put in place to ensure that trainees who leave for their homes after completing the O&M training are checked to evaluate their progress as well as any forms of assistance with regards to O&M resources that they may require.

5.4.3 Recommendations for Further Research

This research has established that further studies can be carried out in various areas in the field of orientation and mobility so as to provide the missing information. These studies include:
1. A study on challenges faced by trainees with visual impairment undergoing O&M training in other rehabilitation centers in Africa.

2. A study on challenges facing trainers of O&M.

3. A study can be carried out on the hindrances to the development of O&M curriculum in Rwanda.

4. A research can be carried out on the importance of acquisition of O&M skills to the trainee with visual impairment in Rwanda.
REFERENCES


APPENDICES

APPENDIX I

RESEARCHER COMMITMENT LETTER

I, Mukanziza Venantie from the Kenyatta University school of education, Department of Special needs education conducting Research on (Challenges Trainees with Visual impairment encounter in Orientation and Mobility: Case study of Masaka Rehabilitation Center for the Blind Kigali Rwanda.)

I under take responsibility of keeping research ethical by getting parents/Head of school consent before distributing my research instalments (questionnaire and guided interview), to the trainees, Trainers and administrators from Masaka Rehabilitation Center for the Blind.

Data collected from this Center, will be kept safely and will be only used to the purpose of this research.

Mukanziza Venantie

Date: 26th/July/2016
APPENDIX II

CONSENT FORM

PARENTS/GUARDIANS/HEAD OF SCHOOL AUTHORIZATION

Your trainee is invited to participate in a research study on challenges trainees with visual impairment encounter in orientation and mobility, this research objective will seek to identify the challenges related to the professional qualification of the trainers of trainees of orientation and mobility, Assess the availability of an appropriate curriculum on orientation and mobility for trainees with V.I, Determine the availability of resources for training orientation and mobility for trainees with V.I, Assess the skills acquisition in O&M among trainees with V.I. The research is conducted by Mukanziza Venantie from Kenyata University school of education, Department of Special Needs Education, I hope to learn the parental contribution on orientation and mobility. Your trainee was selected as a possible participant in this study because he participated in orientation and mobility at Masaka rehabilitation center for the blind.

If you decide to allow your trainee to participate, in answering the questions related to this research which may take some few hour this research do not have any risk to your trainee or any inconvenience as long as our purpose is to look how we can find out the how parent can get more effort in improving improvement of orientation and mobility.

However, I cannot guarantee that your trainee personally will receive any benefits from this research, in terms of kind while the research do not have any funding and the finding
from the research will be used for the policy formulation to improve quality of orientation and mobility.

Any information that is obtained in connection with this study and that can be identified with your trainee will remain confidential and will be disclosed only with your permission or as required by law. Subject identities will be kept confidential by using coding to safeguard the respondent’s information provided (data).

Your trainee’s participation is voluntary. Your decision whether or not to allow our trainee to participate will not affect you or your trainee’s relationship with anyone related to this research. If you decide to allow your trainee to participate, you and/or your trainee are free to withdraw your consent and discontinue participation at any time without penalty.

I agree that my Take to take part in the above study.

Name of Participant (Code) Date Signature

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

Name of Researcher Date 12/05/2016 Signature

.......................... .......................... ..................
APPENDIX III

Ibibazo By’abanyeshuri bo Mu Kigo Cy’abafite ubumuga Bwo Kutabona Masaka Kigali

(Questionnaire for Trainees at Masaka Rehabilitation Center for the Blind)

Ubu buryo bw’ibazwa buzafasha umushakashatsi kwegeranya neza amakuru azaturuka mu kigo cy’abafite ubumuga bwo kutabona cy Masaka hanyuma abisesengure neza kandi amakuru azava muri ubu bushakashatsi tubijeje kuzayitaho kandi tukayakoresha muri ubu bushakashatsi gusa nta yindi nyungu, tukaba tubasaba gusubiza ntacyo mwikanga.

Murakoze.

(This research tool will help the researcher to collect and analyzed data from Masaka Rehabilitation Center for the Blind, to accomplish the research findings. The information given will be confidential and useful for the purposes of the study and will not be used or distributed to any third party)

Kindly feel comfortable to respond to the questions.

Icyiciro cy a mbere: Section one:/ Demographic data

Date: ________________________

Izina ry’ikigo(Name of center) _____________________
1. Igitsina(Gender)___________

2. Imyaka (Age) 10years<_______10-15 years___15-20 years____20 >____

3. 3. Muri ibi byiciroby’amashuri wize ayahe? (What is your highest academic qualification?)

   Primary:,Secondary:,Diploma______________ _____, Bachelors: ________,No
   one:

**Icyiciro cy a kabiri(Section two)**

**Trainees views on the availability of the materials for O and M training**

4. Subiza ukoresheje aya magambo/ Fill in the table below using :Nibyo rwose(Strongly agree), Nibyo ( Agree), Ndifashe (Neutral) Sibyo (Disagree) Sibyo rwose (Strongly disagree)

<table>
<thead>
<tr>
<th>Statement/ Ikibazo</th>
<th>Nibyo rwose(SA)</th>
<th>Nibyo (A)</th>
<th>Ndifashe (N)</th>
<th>Sibyo (D)</th>
<th>Sibyo rwose (SD)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Ikigo gifite ibikoresho bihagije bikoresha mu kwigisha/ Masaka center has enough tools to use when training</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2 Abarimu bafite ubumenyi buhagije mu gukoresha ibyobikoresho/ Teachers have enough skills in using the tools.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3 Ibikoresho bifasha abanyeshuri mu myigire yabo/The tools help us in our learning</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
4. Ikigo gikeneye ibindi bikoresho bigezweho/ The center needs more materials to use when training.

5. Abarimu bakeneye amahugurwa mu gukoresha ibikoresho bihari./Trainers need more materials in using the available instruments.

5. Ni ibihe bikoresho mukoresha mu kwiga kwiyobora (Which resources do you use for O&M training? ).

Icyiciro cya gatatu (Section Three): Orientation and Mobility curriculum/Integanyanyigisho ku kwiyobora.

1. Isomo ryo kwiyobora riba kuri gahunda nk’ayandi masomo? (Is orientation and mobility allocated enough time in the timetable as a subject?)

2. Nk’umunyeshuri, ni ikihe gitekerezo watanga kigendanye n’integanyanyigisho mu kwiyobora? (As a trainee what is your suggestion regarding O&M timetable and curriculum?)

3. Waba utekereza ko isomo ryo kwiyobora ryagira agaciro nk’ayandi masomo mu bigo cyangwa se mu mashuri y’abafite ubumuga bwo kutabona yose? Yego....oya. (Do you believe that Orientation and Mobility training should be given the same importance and attention in centers or schools for persons with visual impairment just like other academic subject?)

4. Yes.......... No.........
5. Ni ayahe masaha isomo ryo kwiyobora ritangwa mu cyumweru? (How many hours per week are you trained on O&M?).

Icyiciro cyane: Section four: ubumenyi abafite ubumuga bwo kutabona bahabwa mu bijyanye no kwiyobora (O&M Skills acquisition)

1. 1. Ni ubuhe bumenyi abafite ubumuga bwo kutabona baba bafite nyuma yo guhugurwa? (Which skills have you gained after the O&M training?)

2. Ni nyuma y’igihe kingana iki abanyeshuri batangira gushyira mu bikorwa ubumenyi bahawe? (When were the skills you acquired after training exhibited?

   1_2 weeks     2_4 weeks     4_6 weeks     6_8 weeks
   briefly explain)
   ......................................................................................................................
   ......................................................................................................................

3. Ni izihe mbogamizi muhura nazo mu gihe muba muri guhabwa isomo ryo kwiyobora? (What challenges have you experienced in the course of your acquisition of O&M skills at MRCB?)
   ......................................................................................................................
   ......................................................................................................................

4. Ukurikije uko ubibona ni ku kihe kigero waha ubumenyi buba bwatanzwe: Buri hasi, buragereranije, buri hejuru, buri hejuru cyane. (In your opinion how do you rate the usefulness of the skill acquired?)
   Very low: Low_____ Average_______ High_____ Very high/ __________
APPENDIX IV

Interview Schedule for Administrator at Masaka Rehabilitation Center for the Blind Kigali

This research tool will help the researcher to collect and analyzed data from Masaka Rehabilitation Center for the Blind, to accomplish the research findings. The information given will be confidential and useful for the purposes of the study and will not be used or distributed to any third party. Kindly feel comfortable to respond to the questions.

Section one: Demographic data

Gender: ______________

Age: 20_______30_______40_____ 50 _____Over 50______

Section two:

Level of professional qualification

1. How many years have you worked as an administrator at MRCB? Please tick

   1. years<____2 - 5 years_____ 5 - 10 years____10 - 15 years_______15>_____

2. What is your highest academic qualification? Please tick

   Secondary: __________Diploma:________ Bachelors:______ Post graduate______

   A)

3. How many trainers in your center are fully trained in Orientation and Mobility instructions?
4. Which area of specialization are you trained in? Explain briefly

5. What is the minimum qualification of O&M trainers that MRCB prefers to train trainees on O&M?

Section three : Orientation and Mobility Curriculum

1. Is Orientation and Mobility allocated study time in the curriculum and timetable?

2. Do you believe that Orientation and Mobility training should be given the same importance and attention in centers or schools for the Visually Impaired as academic subject? Yes….No…… Give reasons of your answers

3. How many hours per week do you train trainees on O&M?

4. In your center do you have other skills being taught related to orientation and mobility training? Yes___ No_____ 

Give reasons for your answers

Section four: Resources availability during O&M training

1. Which resources do you provide for O&M training?

2. Does MRCB get support for resources used in O&M training?

3. Are the resources readily available to trainees with VI?

4. Are there follow up mechanisms for the use of O&M resources?

5. Are the resources for O&M adequate at MRCB?
Section five:) Skills acquisition in O&M by trainees with V.I

1. What are the O&M skills gained by trainees after successful completion of training at MRCB?

2. What period does it take for trainees to exhibit mastery of O&M skills?

3. What are the challenges experienced during the O&M trainings?

4. In your opinion how do rate the usefulness of the skills acquired?

5. As an administrator, give other suggestions on how the implementation of Orientation and Mobility could be improved in your center
Appendix V

(Ibibazo by’ abarimu bo mu kigo cy’abafite ubumuga bwo kutabona I Masaka Kigali)

(Interview Schedule for Trainers At Masaka Rehabilitation Center For The Blind)

Ubu buryo bw’ibazwa buzafasha umushakashatsi kwegeranya neza amakuru azaturuka mu kigo cy’abafite ubumuga bwo kutabona cy a Masaka hanyumaa bisesengure neza kandi amakuru azava muri ubu bushakashatsi tubijeje kuzayitaho kandi tukayakoresha muri ubu bushakashatsi gusa ntayindi nyungu, tukaba tubasaba gusubiza ntacyo mwikanga.

Murakoze (This research tool will help the researcher to collect and analyzed data from Masaka Rehabilitation Center for the Blind, to accomplish the research findings. The information given will be confidential and useful for the purposes of the study and will not be used or distributed to any third party. Kindly feel comfortable to respond to the questions. Thank you).

Icyiciro cy a mbere: Section one: Demographic data

Date: ________________________________

♀izina ry’ikigo: (Name of center)_____________________

Igitsina:(Gender) ____________

imyaka:: (Age ): 20-30 [ ] 31-40 [ ] 41-50 [ ] Above 50 [ ]
Icyiciro cya kabiri: Section Two: Ubumenyi abarimu bafite mu kwigisha abafite ubumuga bwo kutabona mu bijyanye no kwiyobora (Qualification level of O&M trainers of the Visually Impaired)

1. Subiza ukoresheje aya magambo / Fill in the gaps with: Nibyo rwose (Strongly agree), Nibyo (Agree), Ndifashe (Neutral) Sibyo (Disagree) Sibyo rwose (Strongly disagree)

<table>
<thead>
<tr>
<th>Statement/ Ikibazo</th>
<th>Nibyo rwose (SA)</th>
<th>Nibyo (A)</th>
<th>Ndifashe(N)</th>
<th>Sibyo (D)</th>
<th>Sibyo rwose (SD)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Mfite uburambe buhagije mu mirimo nkora/ I have enough experience related to O and M.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Ibyo nkora narabyize mu mashuri/ My qualification relates to O and M.</td>
<td></td>
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<td></td>
</tr>
<tr>
<td>3. Uburyo nkoresha nigisha bubereye abanyeshuri / I use the right method matching with learners disability</td>
<td></td>
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</tr>
<tr>
<td>4. Numva kandi nkoresha neza ururimi amasomo atangwamo / I master the language of instruction</td>
<td></td>
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<td></td>
</tr>
<tr>
<td>Question</td>
<td>Yes</td>
<td>No</td>
<td>Blank</td>
<td></td>
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<tr>
<td>-------------------------------------------------------------------------</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Wigeze ugira amahugurwa kubigendanye n’akazi ukora / Have you ever been trained for O and M?</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nkoresha neza imfashanyigisho / I correctly use the teaching Aids</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ubona ukeneye amahugurwa agendanye n’ akazi ukora/ Do you think you need more training related to O and M?</td>
<td></td>
<td></td>
<td></td>
<td></td>
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</tbody>
</table>

2. Umaze igihe kingana iki ukora nk’umwarimu muri iki kigo cy’Masaka? Subiza ukurikije iyi myaka. (How many years have you worked as a trainer at MRCB? Please tick years<____2 - 5 years_____ 5 - 10 years____10 - 15 years____15>_____)  

3. Ni ikihe cyiciro cy’amashuri ufite ukurikije ibi biri aha? What is your highest academic qualification? Please tick  
   Secondary: ____________ Diploma:_________ Bachelors  

4. Ni iki kigenderwaho kugirango batoranye abagomba guhugura abafite ubumuga bwo kutabona mu kigo cy’Masaka? (What criterion was used to select trainers in the center to train in Orientation and Mobility instructions?)
Icyiciro cy aya gatatu: Section Three: Integanyanyigisho ku kwi yobora. (*Orientation and Mobility curriculum*)

1. Subiza uko resheje aya magambo/Fill in the gaps with : Nibyo rwose (Strongly agree), Nibyo (Agree), Ndifashe (Neutral) Sibyo (Disagree) Sibyo rwose (Strongly disagree)

<table>
<thead>
<tr>
<th>Statement/Ikibazo</th>
<th>Nibyo rwose (SA)</th>
<th>Nibyo (A)</th>
<th>Ndifashe (N)</th>
<th>Sibyo (D)</th>
<th>Sibyo rwose (SD)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Mufite integanyanyigisho mukurikiza mwigisha? /Do you have the curriculum for O and M?</td>
<td></td>
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<tr>
<td>2 Integanyanyigisho iri ku rwego rw’abanyeshuri/ Is the curriculum matching the level of the trainees?</td>
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<td></td>
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<tr>
<td>3 Ese mujya mukora igenzura ry’iyomfashanyigisho? /Have you ever assessed the curriculum?</td>
<td></td>
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</tr>
<tr>
<td>4 Ese iyo nteganyanyigisho se ubona ifasha abanyeshuri?/Does the curriculum help the trainees in their learning?</td>
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<tr>
<td>5 Isomo ryo kwi yobora riri kuri ya gahunda y’amasomo yigishwa/ The O and M is</td>
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</tr>
</tbody>
</table>

86
2. Waba utekereza ko isomo ryo kwiyobora ryagira agaciro nk’ayandi masomo mu bigo cyangwa se mu mashuri y’abafite ubumuga bwo kutabona yose? Yego….oya tanga ubusobanuro bw’igisubizocyawe. *(Do you believe that Orientation and Mobility training should be given the same importance and attention in centers or schools for the Visually Impaired as academic subject? Yes….no…… Give reasons of your answers)*

3. ni ayahe masaha isomo ryo kwiyobora ritangwa mu cyumweru? *(How many hours per week do you train O&M?)*

4. Mufite integanyanyigisho y’isomo ryo kwiyobora? Niba ari yego ninde uyishyiraho? Niba ari oya, mugendera ku wuhe murongo? *(Do you have a specific curriculum for O&M?)*

(I) If yes, who is the developer?

(II) If no, what guidelines do you follow?
Icyiciro cyane: Section Four: ibikoreshwa mu isomo ryo kwiyobora (*Availability of O&M resources*)

5. Subiza ukoresheje aya magambo/Fill in the gaps with : Nibyo rwose(Strongly agree), Nibyo (Agree), Ndifashe (Neutral) Sibyo (Disagree) Sibyo rwose (Strongly disagree)

<table>
<thead>
<tr>
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<th>Sibyo (D)</th>
<th>Sibyo rwose (SD)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Ikigo gife ibikoresho bihagije bikoresha mu kwigisha/ Masaka center has enough tools to use when training</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>2 Abarimu bafite ubumenyi buhagije mu gukoresha ibyo bikoresho/ Teachers have enough skills in using the tools.</td>
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<tr>
<td>3 Ibikoresho bifasha abanyeshuri mu myigire yabo/ The tools help students in their learning</td>
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</tr>
</tbody>
</table>
2. Ni ibihe bikoresho mukoresha mu kwigisha abanyeshuri kwiyobora? *(Which resources do you use for O&M training?)*

2..Ese Masaka yaba hari inkunga ibona mu bijyanye n’ibikoresho byo kwiyobora? *(Does MRCB get support in provision of resources used in O&M training?)*

   Yes___ No____ Briefly explain the resources

3. Hari ukuntu ibyo bikoresho byaba bikurikiranwa se kugirango bitangirika? *(Are there follow up mechanisms put up to monitor trainees’ use of O&M resources?)*
Icyiciro cya gatanu: Section Five: Ubumenyi abafite ubumuga bwo kutabona bahabwa mu bijyanye no kwiyobora. (*O&M skills acquired by trainees with visual impairment*).

1. Ni ubuhe bumenyi abafite ubumuga bwo kutabona baba bafite nyuma yo guhugurwa? (What are the O&M skills acquired after the successful completion of the training?)

2. Ni nyuma y’igihe kingana iki abanyeshuri batangira gushyira mu bikorwa ubumenyi bahawe? (After *what period* do trainees exhibit O&M skills learned? Tick *the correct period below*).

1 week< ____ 1 -4 weeks______5- 8 weeks_______ Over 8 weeks> ______

3. Ni izihe mbogamizi muhura nazo mu gihe muba muri kwigisha kwiyobora? (*What challenges do you encounter during the training of O&M?)*

4. Ukurikije uko ubibona ni ku kihe kigero waha ubumenyi buba bwatanzwe: Burihasi, buragereranihe,buri hejuru, buri hejuru cyane? (*In your opinion how do you rate the usefulness of the O&M skills acquired? Tick appropriately*)

   Low_____ Average________ High_____ Very high/. __________

5. Nk’umwarimu, tanga ikindi gitekerezo mu buryo wumva isomo ryo kwiyobora ryatera imbere mukigo cyanyu. (As a trainer, give other suggestions on how the implementation of Orientation and Mobility could be improved in your center)
Appendix VI

Research Approval Letter (Kenyatta University)

KENYATTA UNIVERSITY
GRADUATE SCHOOL

E-mail: dem-graduate@ku.ac.ke
Website: www.ku.ac.ke

P.O. Box 43844, 00100
NAIROBI, KENYA
Tel. 8710901 Ext. 87830

Our Ref: E55EA/25005/14
DATE: 28th June 2016

Director General,
National Commission for Science, Technology
& Innovation
P.O Box 36023-00100
NAIROBI

Dear Sir/Madam,

RE: RESEARCH AUTHORIZATION FOR MUKANZIZA VENANTIE – REG. NO.
E55EA/25005/14

I write to introduce Mr. Mukanziza Venantie who is a Postgraduate Student of this University. He is registered for M.Ed degree programme in the Department of Special Needs Education.

Mr. Mukanziza intends to conduct research for a M.Ed. Proposal entitled, “Challenges Trainees with Visual Impairment Encounter in Orientation and Mobility: Case of Study, Masaka Rehabilitation Centre for the Blind, Kigali, Rwanda”.

Any assistance given will be highly appreciated.

Yours faithfully,

[Signature]

MRS. LUCY N. MBAABU
FOR: DEAN, GRADUATE SCHOOL
Appendix VII

Approval Letter (Ministry of Education, Rwanda)

REPUBLIC OF RWANDA

MINISTRY OF EDUCATION
P.O. BOX 622 KIGALI

Ms. Mukanziza Venantie
MSc. Student
Department of Special Needs Education
Kenyatta University
Kenya

Email: venantie.mk@gmail.com

Dear Ms. Mukanziza,

RE: Approval to Conduct Research in Rwanda under the Project Title: “Challenges Trainees with Visual Impairment Encounter in Orientation and Mobility: Case of Study, Masaka Rehabilitation Centre for Blind, Kigali, Rwanda”

I am pleased to attach a copy of research clearance, which has been granted to you to conduct research on the above title.

I wish to remind you that the research clearance number should be cited in your final research report. The research will be carried out under affiliation of the University of Rwanda-College of Education (UR-CE) under supervision of Dr. Beth Mukarwego Nasifora, School of inclusive and Special Needs Education, UR-CE.

You are requested to submit the final report after completion of your research activities to the Ministry of Education of Rwanda.

I wish you success in your research.

Yours sincerely,

Marie-Christine GASINGIRWA, Ph.D
Director General of Science, Technology and Research

Cc:
- Hon. Minister of Education
- Hon. Minister of State in Charge of Primary and Secondary Education
- Permanent Secretary, Ministry of Education
- Dr. Beth Mukarwego Nasifora, School of inclusive and Special Needs Education, UR-CE
Appendix VIII
Research Permit (Science Technology and Research, Rwanda)

REPUBLIC OF RWANDA

MINISTRY OF EDUCATION
P.O.BOX 622 KIGALI

Re: Permission to Carry out Research in Rwanda - No: MINEDUC/S&T/382/2016

The Permission is hereby granted to Ms. Mukanziza Venantie, MSc. Student, Department of Special Needs Education, Kenyatta University, Kenya, to carry out research on: “Challenges Trainees with Visual Impairment Encounter in Orientation and Mobility: Case of Study, Masaka Rehabilitation Centre for Blind, Kigali, Rwanda”.

The research will be carried out in Masaka Rehabilitation Center for the Blind located in Masaka Sector, Kicukiro District. The researcher will need to interview personnel of the center including the trainers and administrators. The questionnaires will be administered to trainees prior to obtaining qualitative data.

The period of research is from 25th August, 2016 to 24th August, 2017. It may be renewed if necessary, in which case a new permission will be sought by the researchers.

Please allow the above mentioned researcher, any help and support she might require to conduct this research.

Yours sincerely,

[Signature]

Marie-Christine GASINGIRWA, Ph.D
Director General of Science, Technology and Research