

**EXPERIENCES OF LEARNERS WITH VISUAL IMPAIRMENT IN VOCATIONAL
EDUCATION AND TRAINING INSTITUTIONS. A CASE OF TWO VOCATIONAL
EDUCATION AND TRAINING INSTITUTIONS FOR THE BLIND IN THE DISTRICTS
OF MBALE AND MUKONO**

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DECLARATION

I CHEBET SHAMIM, declare that the content of this thesis is my original work and has never been presented for any award of a degree in any University. Any other extra information cited in this report by other scholars has been acknowledged.

Signature of Candidate 

Date..... 19/01/2011

APPROVAL

This thesis has been submitted for examination with my approval as the candidate's university supervisor (s)

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Signed.....

DEDICATION

I dedicate this work to my family members, sponsors Norwegian Agency for Development Cooperation (NORAD), supervisors, mentors, and my course mates of vocational pedagogy for their continuous support throughout this course. God bless you.

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ACRONYMS AND ABBREVIATIONS

PWDs:	Persons With Disabilities
SNE:	Special Needs Education
VE:	Vocational Education
WHO:	World Health Organization
VI:	Visual Impairment
UN:	United Nations
UNESCO:	United Nations Educational Scientific Cultural Organizations
BTVET:	Business Technical Vocational Education and Training
NUDIPU:	National Union of Disabled People in Uganda
VET:	Vocational Education and Training
CCTV :	Closed Circuit Television
ADL:	Activities of Daily Living
CBR:	Community Based Rehabilitation
UNEVOC-	United Nations Vocational Education
NGO	Non- governmental Organisation
EFA	Education For All
ESSIP	Education Sector Strategic Investment Plan
UPET	Uganda Post Primary Education and Training
MDG	Millennium Development Goals

SEN	Special Educational Needs
AAFBCA	American Action Fund for the Blind Children and Adults
ABB	American Brotherhood for the Blind
ABC	Affect, Behavior, and Cognition
UNAB	Uganda National Association for the Blind
NORAD -	Norwegian Agency for Development Cooperation
A –	Nabumali Training and Resource Centre for the Blind
B –	New Living Hope Vocational Centre for the Blind

DEFINITIONS OF TERMS

- Experiences:** is used to refer to those events that learners with visual impairment go through during learning in vocational education and training institutions. With specific reference to special devices used to enhance learning for persons with visual impairment, curriculum taught to learners with visual impairment, pedagogical approaches/methods used to train learners with visual impairment and the attitude of teachers/instructors towards learners with visual impairment.
- Visual impairment:** is the consequence of a functional loss of vision, rather than the eye disorder itself. The terms partially sighted, low vision, legally blind, and totally blind are used in the educational context to describe individuals with visual impairments
- Special needs:** refers to learners who require more than the ordinary help in class. This is called special education.
- Special devices:** refers to any item or device that can be used by special-needs children to improve their ability to function in the school classroom
- Vocational education:** is a process of forming skills in an individual that s/he may employ in the world of work.
- Braille:** is a series of raised dots that can be read with the fingers by people who are blind or whose eyesight is not sufficient for reading printed material.

TABLE OF CONTENTS

DECLARATION.....	i
APPROVAL	ii
DEDICATION.....	iii
ACKNOWLEDGEMENT.....	iv
ACRONYMS AND ABBREVIATIONS.....	v
DEFINITIONS OF TERMS	vii
TABLE OF CONTENTS	viii
LIST OF FIGURES	xii
ABSTRACT.....	xiii
CHAPTER ONE	1
INTRODUCTION	1
1.1 Background of the study.....	1
1.2 Statement of the problem.....	9
1.3 Purpose of the study.....	10
1.4 Objectives of the study.....	10
1.5 Research questions.....	11
1.6 Scope of the study.....	11
1.7 Significance of the study.....	12
CHAPTER TWO	13

REVIEW OF RELATED LITERATURE.....	13
2.0 Introduction.....	13
2.1 Special devices used to teach persons with visual impairment in vocational education and training institutions (VET).....	13
2.3 The curriculum for teaching visually impaired learners in vocational education and training institutions	16
2.4 Pedagogical approaches used to enhance learning for persons with visual impairment in vocational education and training institutions.....	20
2.4 The attitudes of instructors towards learners with visual impairment.....	27
Conclusions from Findings of Literature Review.....	29
CHAPTER THREE	30
METHODOLOGY	30
3.1 Introduction.....	30
3.2 Study Design.....	30
3.3 Study Area	31
3.4 Target Population.....	31
3.5 Study Sample	32
3.6 Sampling procedure	32
3.7 Methods of Data Collection.....	32
3.7.1 Interviews.....	32
3.7.2 Observation.....	34
3.7.3 Documentary analysis.....	34

3.8	Procedure of Data Collection.....	34
3.9	Data Analysis	35
CHAPTER FOUR.....		36
PRESENTATION, ANALYSIS AND INTERPRETATION OF FINDINGS.....		36
4.1	Introduction.....	36
4.2	Presentation of Findings	37
4.2.1	Data analysis and interpretation of Objective One	37
4.2.2	Data analysis and interpretation of Objective Two.....	45
4.2.3	Data analysis and interpretation of Objective Three.....	51
4.2.3	Data analysis and interpretation on Objective Four.....	56
CHAPTER FIVE		61
DISCUSSION, CONCLUSION AND RECOMMENDATION		61
5.1	Introduction.....	61
5.2	Discussion of results from Objective One	61
5.3	Discussion of results from Objective Two.....	64
5.3	Discussion of results from Objective Three.....	68
5.4	Discussion of results from Objective Four	71
5.5	CONCLUSION.....	74
5.6	RECOMMENDATIONS.....	76
5.7	SUGGESTIONS	77
REFERENCES		78

APPENDIX I: INTRODUCTORY LETTER FROM THE UNIVERSITY	82
APPENDIX II: INTRODUCTORY LETTER TO THE RESPONDENTS	83
APPENDIX III: AN INTERVIEW GUIDE FOR ADMINISTRATORS	84
APPENDIX IV: AN INTERVIEW GUIDE FOR INSTRUCTORS.....	86
APPENDIX V: AN INTERVIEW GUIDE FOR LEARNERS WITH VISUAL IMPAIRMENT	88
APPENDIX VI: OBSERVATION GUIDE.....	90
APPENDIX V: MAP OF UGANDA SHOWING THE LOCATION OF MBALE AND MUKONO DISTRICTS	91
APPENDIX VII: MAP OF MUKONO DISTRICT SHOWING INSTITUTION B.....	92

LIST OF FIGURES

- Figure 4.1 Braille Machine
- Figure 4.2 Instructor demonstrating to the researcher on how they use the white cane for mobility
- Figure 4.3 Instructors demonstrating to the researcher on how they use a Braille machine to teach students with visual impairment.
- Figure 4. 4 Instructor demonstrating to the researcher on how they use a string to make a straight lines during planting and small hoe for weeding cereals.

ABSTRACT

This study sought to investigate experiences of learners with Visual Impairment in Vocational Education and Training institutions with regards to Special devices used to enhance learning for persons with visual impairment, curriculum offered to learners with visual impairment, pedagogical approaches used to train learners with visual impairment, and the attitudes of teachers/instructors towards learners with visual impairment.

The study was carried out in two vocational education and training institutions for the blind. The categories of respondents that were involved in the study were the administrators, instructors/teachers and learners with visual impairment.

The study sample comprised two (02) administrators, five (05) teachers and five (05) learners with visual impairment from each of the selected vocational Education and training institutions.

Interviews, observation and documentary analysis were used as research methods to collect data from the subjects. Data was analyzed according to the research objectives using a qualitative approach.

The findings revealed that vocational institutions used for this study did not have sufficient special devices that could enhance learning for persons with visual impairment. This was associated to lack of adequate financial and material support to vocational institutions for people with visual impairment by the government. The study revealed that the curriculum followed at the institutions was basically to equip students with visual impairment with skills to enable them live independently but it was outdated and needed to be updated. The study also found out that institutions adhered to the principles of vocational didactics; their learning/teaching activities included vocational theory, and vocational practice apart from general knowledge which was not adhered to. Pedagogical approaches used to train learners with visual impairment were mainly group work and individual learning depending on the activity at hand. The study also found out that teachers had a negative attitude towards learners with visual impairment and did not have the skills to train them

The study made the following recommendations; institutions providing vocational skills for learners with visual impairment should be supported by government by providing special devices, the curriculum should be updated to suit the demands of the labour market and the general knowledge should be embedded in the curriculum, government should train and deploy special needs teachers in vocational institutions and teachers should change their attitude towards learners with visual impairment.

CHAPTER ONE

INTRODUCTION

1.1 Background of the study

This study inquired into the vocational learning experiences of persons with visual impairment who have managed to enter those vocational education and training institutions in Uganda which to some degree are equipped with special devices and aids used to enhance their learning. Special pedagogical approaches to learning work related skills and acquiring knowledge have been instituted in these institutions. Special curriculum has also been designed to meet the needs of learners with visual impairment, leading to a helpful and positive attitude on the part of the teachers/instructors towards such visually impaired learners in vocational education and training institutions. This study was conducted by means of interviews, and observations at two vocational education and training institutions for the blind, and has also relied on analysis on documentary source material.

In this chapter, I present the background, statement of the problem, purpose and objectives of the study. Other important components introduced are the research questions, as well as the significance and scope of the study.

The point of departure for this study has been my background as a special needs teacher in general and as specialist in visual impairment in particular. My concern therefore is how special needs people are seldom given priority in all fields of education. This situation is only made more difficult when it comes to vocational

education and training, but it is even more critical in a developing country like Uganda where provision of vocational education is accorded low esteem and is generally problematic for the able-bodied, let alone for the disabled. The government of Uganda, in line with declarations made by the United Nations has put out calls that focus on vocational training for people with special needs. (*Uganda government white paper 1992*).

According to the World Health Organization¹ (WHO) (2007), there are about 161 million people worldwide living with disabilities. Of these, 37 million people are blind, with 1.5 million children in pre-school and school going age. More than 90% of these children with visual impairments live in Africa, Asia, Latin America, and the Pacific island nations. Most of these children living in developing countries are deprived of education, which causes further low self-esteem among persons with visual impairment. WHO (2002) observed that without training and labour related skills many visually impaired people do not become equipped to lead independent lives. This partly explains the high rate of dependency among the visually impaired. This is the case even in the “developed” world.

In Australia, for instance, visually impaired graduates in vocational education and training (VET) are less likely to be employed, 40% of visually impaired persons compared with 77% of the able-bodied due to lower levels of schooling (Selby, 2004).

¹ Information about the World Health Organization (WHO) Report, 2007 and the United States National Center for Education Statistics was retrieved from the following website, [http://www.buyusa.gov/Canada/en/students with special needs.pdf](http://www.buyusa.gov/Canada/en/students%20with%20special%20needs.pdf).

Kahrs and Sentumbwe (2008:4) argue that the current statistics of Uganda indicate that there are about 500,000 blind and partially sighted persons in Uganda. On their programme on Mobility and Rehabilitation (MBR) for persons with visual impairment in Uganda, they reported that visual impairment can cause inactivity for the individual. Such inactivity often results in helplessness and dependence on others. The negative effect or outcome, in terms of dependence, can be avoided if necessary habilitation and/or rehabilitation activities and initiatives are taken. This is in keeping with Tellevik and Elmerskog (2001), who argued that mobility and rehabilitation helps to improve the lives of Ugandans with visual impairment by providing individuals the skills they require to be able to participate in economic, cultural and social activities of their communities. Tellevik and Elmerskog (2001) observed that the unemployment rate among the visually impaired is high compared to the sighted.

The lack of employment from the perspective of vocational didactics is probably due largely to the lack of pedagogical approaches to the learning of vocational skills. According to Uljens (1997), as cited by Nilsson (2009), vocational didactics seeks answers to the following questions:

What is education or training aiming at?

Why is it aiming at this?

How is the education or training carried out?

Why is it done this way?

Who is the teacher?

When is training carried out?

Where is it carried out? ²

Nilsson (2009) further argues that an education or training system should have clear aims in order to avoid unemployment of graduates.

Even in a powerful country like the United States, less than one-third of the visually impaired population is in the labor force. Today, underemployment and unemployment, even in relatively rich and developed countries, have remained a serious issue for people with visual impairment. According to Selby (2004), the unemployment problem is everywhere due to the insufficient attention given to developing appropriate work skills for such people in vocational institutions.

According to a survey by Sight Savers International (2006), children with visual impairment are less likely to enter, remain in and succeed in school; also their literacy levels are lower. The sight savers survey further argues that vocational training for people with visual impairment does not meet the labour market demands, and may be limited to a few low-profile occupations. This, I would

² Uljens 1997 was discussed by Professor Nilson Lennart 2009 during his lectures to the students of vocational pedagogy at Kyambogo University (MVP).

argue is partly due to educators not being conscious of the need to apply the principles of vocational didactics in vocational institutions in general, and in vocational training for the visually impaired in particular.

Vocational education and training is essential for the visually impaired children in order for them to learn to live independently and to have the learning and problem-solving skills to apply to their chosen vocations (Lamar and Rosy, 2010). Lamar and Rosy (2002) further argue that vocational training makes an individual self-sufficient to earn his/her living independently especially learners with visual impairment. Vocational education is an important part of learning for all students. However, for learners with visual impairment, who have limited learning capacity due to a serious lack of learning devices, it is very important to provide access to special needs education in vocational training, so that the visually impaired can become independent and be able to take care of themselves beyond the high school experience. Lamar and Rosy (2010) argue that having access to vocational training opportunities enables students to follow the profession of their choice according to their abilities, skills and interests. Vocational training helps special needs children in general to develop their skills and talents in a useful and beneficial manner. Vocational training also helps them to realize their ambitions and feel that they have value in their communities and within themselves. With the help of vocational training in schools, students with visual impairment can become independent and productive members of society (Lamar and Rosy, 2010).

From time immemorial, people with visual impairment have suffered neglect and rejection³. However, in 1948, a new anti-discriminatory climate began to unfold, thereby beginning to usher in changes in policy and statute, nationally and internationally. Due to the new anti-discriminatory policies and statutes, inclusion has been enshrined at the same time that segregation and discrimination have been rejected (Akope 2002). This marked the inclusion of people with special needs in all activities in our communities including vocational education and training (Akope, 2002).

There are both national and international actions and declarations that have advocated for the education of people with special needs. The international trends that have influenced special needs education include: the Universal Declaration of Human Rights, Article 26, 1948⁴, United Nations (UN) Convention on the Rights of the Child 1989, World Declaration on Education for All (EFA) at Jomtien Thailand, 1990, and Framework for Action to Meet Basic Learning Needs, UNESCO 1994, and Salamanca Statement and Framework for Action on Special Needs Education (Akope, 2002). The above conventions and declarations have influenced education for all (EFA) including learners with visual impairment.

In Uganda, the *Government White Paper on Education (Ministry of Education and Sports, 1992: p.169)* clearly emphasizes the need to support learners with special needs generally and specifically those with visual impairment. *The*

³ Information about how people with disabilities were treated in African societies was obtained from lecture notes of Ivan Matovu, in 2000, from UNISE Kyambogo.

⁴ The Universal Declaration of Human Rights was retrieved from http://en.wikipedia.org/wiki/Universal_Declaration_of_Human_Rights

Constitution of Uganda (1995:162), supports education of persons with special needs including those with visual impairment. Other support policies include the Uganda National Institute of Special Needs Education (UNISE) Act, of 1998 and Uganda Government's Universal Post Primary Education and Training (UPPET) and the *yearly Education Sector Investment Strategic Plan (ESIP)* (*Ministry of Education and Sports*, 2004-2015). The above policies and others all are in line with United Nations declarations and conventions, all of which are influenced by the Millennium Development Goals (MDG) and Education for All (EFA) to which Uganda is a signatory. Other policies include Business Technical and Vocational Education and Training Act ((BTVET Act, 1992:296) and the National Youth Policy of Ministry of *Gender Labour and Social Development (MGLSD)*, (2001:27).

From the above trends, institutions for persons with visual impairment have been established by both government and non-government bodies. They include the Salaama Vocational Training Center, the Madera School for the Blind, the Nabumali Training and Resource Centre for the Blind and the Kireka Rehabilitation Centre among others.

During the mini research expeditions I participated in 2009, in my first year of study and training as a masters student of vocational pedagogy, I did not see the special devices that could facilitate learning for persons with visual impairment in the vocational institutions we visited and yet I saw and interacted with some two students with low vision in one of the training institutions. I found no evidence of tools and materials like tactile aids, audio-visual aids, Braille reading and writing

materials in these institutions. There were no tutors/instructors specifically trained to teach learners with visual impairment yet these learners with special needs did exist in these vocational training institutions.

My general experience as a special needs teacher has given me the feeling that there is a large gap between these official statements that advocate for the education of people with special needs and the actual learning and teaching situation for the visually impaired in vocational education and training institutions. In light of this I embarked on a study to find out the learning experiences that visually impaired people have had within vocational education and training in Uganda. Therefore this study seeks to record and analyze the experiences of learners with visual impairment in vocational institutions in Uganda.

This study is based on the theory that a disability is not inability. This is a motto adopted and used by the National Union of Disabled People of Uganda (NUDIPU). According to this slogan, people with special needs can excel in various activities and be productive as able-bodied people if provided with conducive and relevant environment. NUDIPU argues that increased investment by government in their educational needs will be exceeded by the level of productivity with which NUDIPU members will then be able to create as they engage in the world of work.

1.2 Statement of the problem

The saying that *disability is not inability* is recognition of the fact that disabled persons, as some show through their actions, have the capacity to perform certain functions and tasks that, once developed and built upon through appropriate training can equip them to perform well in the world of work.

In Uganda, there are centres and institutions with training programs for people with special needs. As already stated, the institutions for the visually impaired have been established by both government and private organizations. They include Nabumali Training and Resource Centre for the Blind in Mbale, Salaama Training Centre in Mukono, and Madera School for the Blind in Soroti among others. The purpose of establishing these vocational institutions was to equip the visually impaired learners with knowledge and skills that can enable them become self-reliant in their communities. The training programs in these vocational institutions include agriculture, knitting, weaving, poultry-keeping, basket-weaving, music, carpentry, guidance and counseling, cookery, and reading and writing Braille. It is possible that a conscious vocational approach to special needs education in conducting these programs would enhance the acquisition of the intended knowledge and skills by the visually impaired to benefit the trainees and the society. Vocational training is essential for learners with visual impairment if they are to live independently and to have the learning and problem-solving skills to apply to their chosen vocations. Visually impaired can, with proper assistance, also succeed in business and academic careers too!

This study therefore sought to record and analyze the experiences of learners with visual impairment in the selected vocational education and training institutions for the blind in Uganda.

1.3 Purpose of the study

The purpose of the study was to investigate in some depth the experiences of learners with visual impairment as they seek to acquire skills and knowledge in the selected vocational education and training (VET) institutions in Uganda.

1.4 Objectives of the study

This study sought to determine the learning experiences of the visually impaired persons enrolled for knowledge and skills at the vocational education and training institutions in terms of:

1. Access to special devices and equipments used to enhance learning for the visually impaired learners in selected Vocational education and training Institutions in Uganda;
2. The relevance of the Curriculum offered to the visually impaired persons at the vocational education and training institutions in Uganda;
3. Pedagogical approaches used to enhance learning for persons with visual impairment at the selected vocational education and training institutions in Uganda;

4. The attitudes of instructors towards learners with visual impairment at the vocational education and training institutions in Uganda.

1.5 Research questions

The study was guided by the following research questions:

- i. What are some of the special devices that help learners with visual impairment to learn in these vocational institutions in Uganda?
- ii. What are some of the subjects taught to persons with visual impairment in these vocational education and training institutions in Uganda?
- iii. What are some of the pedagogical strategies used to convey knowledge and skills to learners with visual impairment in these vocational institutions in Uganda?
- iv. What are the attitudes of teachers/instructors towards learners with visual impairment in these institutions in Uganda?

1.6 Scope of the study

The study was limited to two vocational education and training institutions in Uganda. Institution A is located in Mbale District⁵ and Institution B is located in Buikwe District formerly, Mukono District. Both institutions are found in the eastern part of Uganda. The researcher's assumption was that these were representative of all the institutions that provide vocational skills and knowledge to the visually impaired learners in Uganda. In those institutions, learners are

⁵ Names have been omitted to protect the identity and privacy of the institution and personnel.

particularly involved in poultry-keeping cookery, basket-weaving, agriculture, Braille reading and typing, guidance and counseling. The data collected from Institution A was compared with that of Institution B in order to gain a broader comparative insight into what goes on in institutions for the visually impaired learners. This was done in order to give a big picture of the practices in such institutions and to allow the researcher to focus on the experiences of learners with visual impairment in vocational education and training institutions in Uganda.

1.7 Significance of the study

It is hoped that the results of this study will provide information on the availability of special devices for learners with visual impairment in vocational education and training institutions in Uganda. The findings will also provide information on the relevance of the curriculum used to train learners with visual impairment in Uganda. The results of this study will highlight on the pedagogical approaches used to train learners with visual impairment in vocational education and training institutions in Uganda and also provide information on the attitudes of teachers/instructors towards learners with visual impairment in vocational education and institutions in Uganda. Finally, the results of this study will act as a source of information in guiding the policy makers in making decisions on issues concerning vocational education and training in Uganda and the world at large.

CHAPTER TWO

REVIEW OF RELATED LITERATURE

2.0 Introduction

This chapter presents literature related to the study with regards to the vocational learning experiences of learners with visual impairment in the selected vocational education and training institutions. It is presented in relation to the objectives of the study.

2.1 Special devices used to teach persons with visual impairment in vocational education and training institutions (VET)

Special devices include any item or device that can be used by special-needs children to improve their ability to function in the school classroom (Melody Hughes 2010).⁶

Special device/Assistive technology is a generic term that includes assistive, adaptive and rehabilitative devices for people with special needs and includes the process used in selecting, locating and using them.⁷ Assistive devices promote greater independence by enabling people with visual impairment to perform tasks that they were formerly unable to accomplish, or had great difficulty accomplishing, by providing enhancements to or changed methods of interacting with the technology needed to accomplish such tasks.

⁶ definition of special devices was retrieved from <http://www.ehow.com/members>

⁷ The definition of special device/ assistive technology given here on this page was retrieved from the following website: [www.buyususa.gov/canada/en/students with special needs.pdf](http://www.buyususa.gov/canada/en/students%20with%20special%20needs.pdf)

According to Linden & Call, (2002:29), there is a general agreement that vision plays a key role in linking different types of sensory information during learning and development, as such, vision is commonly described as the sense that coordinates or integrates the information received through other senses. People with visual impairment are forced to coordinate sensual information by other means, mainly tactile and aural means.

Omagor (2005) explains that the lack of special devices is a major concern to teachers. Vocational institutions lack the special devices specially designed for learners with visual impairment. Their main requirement are the provision of adapted materials and special devices as well as training in their use, especially the provision of textbooks in Braille and continued support for resource centers in mainstream schools for “integrated” children who are blind. The lack of these resources was evident during my mini research expeditions in my first year of study in vocational pedagogy, especially in one of the vocational education and training institutions. Students who had low vision attended this institution. When I had discussed their learning experiences with them, the learners also expressed similar sentiments about lack of special devices.

Students with limited visual discrimination skills may need to be taught by pairing tactile learning with near vision activities. Systematic search patterns with extra time for locating objects may be necessary. Sometimes tactile learning may need to be considered as the primary learning mode, (Barraga & Morris, 1980). Search patterns may involve the use a cane. Canes are also used by people with visual impairment to search for objects and as part of their daily mobility. In the

vocational institutions visited during this study, I found out that there was only one white cane available to five learners with visual impairment in one of the two institutions!

Barraga (1980) also observes that the use of a white cane in orientation and mobility skills may be important during the assessment process. Special instruction may be needed in trailing, protective and search techniques, and in familiarizing the student with common areas of the school building. A thorough evaluation of orientation and mobility may be needed.

Students with visual impairment require the information from their textbooks or worksheets to be magnified or in to be transcribed into Braille. The closed circuit television (CCTV) and video magnifier are useful magnifying aids for students with low vision. In this case the student places the reading material under a camera and the magnified image would be projected on the computer monitor. On the other hand, students who are totally blind learn the skill of Braille reading when the text information in its print form is converted into Braille using a computer and an embosser. Information from the computer is sent to the embossers for output in Braille.⁸ The talking dictionary is another assistive device that is useful for the students who are in search of meanings of various words. In a method that is similar to the talking calculator, the voice output reads out the meaning of the word to the students. These assistive devices were lacking in the

⁸ The above information on CCTV and magnifying aids was retrieved from (<http://app.healthsciencepro.gov.sg>)

institutions I visited, neither have I come across studies done in the use of these devices in Uganda⁹.

Spectacles are yet another form of assistive device which help learners with visual impairment to have better vision and thus rely less on others for assistance. Similarly, assistive devices help individuals with visual impairment to have greater independence. The various devices enhance the individual's learning abilities by addressing the specific difficulties¹⁰. However before the introduction of canes, people with visual impairment had very limited movements due to fear of bumping into objects that can harm them.

The Cranmer abacus is a self-contained, pocket-sized calculating device. It can be used for such functions as addition, subtraction, multiplication, division, and calculating square and cube roots. This device can be made locally using local materials by special needs teachers in our Ugandan case.

These special assistive devices, would give students with visual impairments the opportunity to do well in their Vocational education and training institutions. But virtually none of these special devices were available for the learners in either the vocational institutions I visited during my mini research expeditions and or at the two institutions visited for this present study.

2.3 The curriculum for teaching visually impaired learners in vocational education and training institutions

⁹ This information was retrieved from <http://www.igc.apc.org/afb/brail>

¹⁰ The above information was retrieved from (www.sgh.com.sg).

According to Smith (2010), curriculum means two things: (i) the range of courses from which students choose what subject matters to study, and (ii) a specific learning program. In the latter case, the curriculum collectively describes the teaching, learning, and assessment materials available for a given course of study. Nilsson, (2009) defined curriculum as the way education is structured in terms of intentions (goals and objectives), content, time allocation and distribution as well as the expected results of the specific education. Nilsson (2009) further explains that curriculum also includes the strategies that are recommended for use during the education processes. Ssekamwa, (2000:8) defines curriculum as a course of study. The curriculum developed has to be adhered to by the teachers when transmitting knowledge to the learners in order to ensure that its objectives are achieved.

Focus on curriculum for learners with visual impairment is important because it is what aids the teacher and the learner in obtaining the necessary material for imparting knowledge and skills. The curriculum designed must be compatible with the labor world needs.

According to Egau (2002:5), curriculum planning and development is a dynamic process and must respond both to the needs of the individual and to the technical requirements of the job, as well as the changes in job patterns caused by technological and socio- economic changes. The quality of education and training depends on the ability of institutions to adjust the content of training to meet challenging skills needs. This is especially important for learners with special needs including learners with visual impairment. Learners with visual

impairment should be given the kind of education that enables them to respond to both the needs of the society and their personal needs.

Nilsson (2009)¹¹ observes that a program that does not link learning to workplaces is likely to produce ill-trained workers. This implies that training in any vocational program in Uganda should seriously consider linking learning to the relevant workplaces. This enables learners with visual impairment in gaining the necessary competencies in that program. Nilsson (2009) goes further to say that any vocational education is composed of the three aspects of vocational didactics.

The three aspects of vocational didactics include, the practical (actual work technique), vocational theory and general education components (Mjelde, 2006:52-53 and Nilsson, 2009). The practical component involves teaching the techniques of practical work. The vocational or craft theory component has to do with teaching about materials used, how tools and machines function and some of the scientific principles on which the field or vocation is based. Vocational theory is closely linked to each vocation's special content and development. The general education component teaches general academic subjects; for instance, Math, English, Social Studies and Science. All learners learn equally from practice; some learn well working deductively from concepts (theory) towards practice but the visually impaired like many able-bodied people, learn best inductively, moving from practical experience towards concepts and general knowledge.

¹¹ Professor Nilsson Linnart in his presentation to MVP students went further to say that lack of pedagogical approaches of teaching produces graduate who are ill- equipped with skills needed in the labor world.

Thus vocational theory and practice should receive great emphasis when teaching learners with visual impairment (Sight- Savers International 2006, Lamar and Rosy, 2002). Branding and labeling of tools and other learning aids should be done in Braille to enhance tactile reading.

According to Piaget (1998), learners do not simply copy or absorb ideas through the senses directly, but must construct their concepts through active and personal experimentation and observation. Piaget (1998) also says that curriculum educators must plan a developmentally appropriate curriculum that enhances students' logical and conceptual growth. He further observes that teachers must put into consideration the critical role that "experiences or interactions with the surrounding environment" play in the student learning. According to my own experience as a special needs teacher, the three aspects of vocational didactics are very necessary and must be emphasized when teaching learners with visual impairment, the aspect of vocational theory alone is not enough to enhance learning, but also detailed skills practice has to be employed when teaching learners with visual impairment, as does an integrated approach basis general education so that even the impaired can, with Piaget (1998) "construct their concepts through active and personal experimentation and observation" but combining their experience of the three types of related learning.

2.4 Pedagogical approaches used to enhance learning for persons with visual impairment in vocational education and training institutions.

Pedagogy

Pedagogy is a broad term which addresses all the methods employed to effect the teaching/learning of an individual with a target of achieving pre-determined objective(s) (Nilsson, 2009). In this regard learning is exhibited by a change of behavior of the individual being subjected to the teaching/learning process. Although different disciplines require different (special) pedagogy there is general pedagogy that cuts across the various disciplines (Nilsson, 2009) and this includes pedagogy/methods adapted to enhance learning for the visually impaired in vocational education and training institutions.

Pedagogy is a crucial consideration in the teaching of pupils who are identified as having Special Educational Needs (SEN), especially when teachers are thinking about specialist teaching and teaching approaches that might support pupils who find learning difficult. Corbett & Norwich (1999) say that teachers of pupils with SEN are always testing out new ideas and strategies for making the curriculum accessible - something which is especially important for learners with visual impairment since their success in learning depends so much on the quality of teaching (Corbett & Norwich, 1999:116).

Pedagogy is defined by Lewis & Norwich (2005:7) as 'the broad cluster of decisions and actions taken in classroom situations that aim to promote school learning. For this study, the researcher examined the strategies which teachers use to enhance learning for persons with visual impairment in vocational education and training institutions.

According to Keller *et al.* (2005), to assist in overcoming a students' visual limitation requires unique and individual strategies based on that student's particular visual impairment and his/her skill of communication like, Braille, and speed listening. Keller (2005) gives a general courtesy for helping learners with visual impairment as follows: speak to the class upon entering and leaving the room or site, call the student with vision impairment by name if you want his/her attention, seat the student away from glaring lights (e.g. by the window) and preferably in front of the class, use descriptive words such as straight, forward, left, etc. in relation to the student's body orientation, be specific in directions and avoid the use of vague terms with unusable information, such as "over there", "here", "this", describe, in detail, pertinent visual occurrences of the learning activities , describe and tactually familiarize the student to the classroom, laboratory, equipment, supplies, materials, and field sites, give verbal notice of room changes, special meetings, or assignments, offer to read written information for a person with a visual impairment, when appropriate, order the appropriate text books for the students in their preferred medium, identify yourself by name; don't assume that the student who is visually impaired will recognize you by your voice even though you have met before, if you are asked to guide a student with a visual impairment, identify yourself, offer your services and, if accepted, offer your arm to the student's hand. Tell them if they have to step up or step down, let them know if the door is to their left or right, and warn them of possible hazards, orally, let the student know if you need to move or leave or need to end a conversation, when communicating with a student who has a vision impairment,

always identify yourself and others who are present, also use an auditory or tactile signal where a visual signal is normally used and always notify changes of class schedule in advance.¹²

According to Hatlen (1996) all students need to undergo an assessment of the subject areas covered by the Expanded Core Curriculum for Students with Visual Impairments. This should be done in order to make correct placement of the visually impaired child. Assessment enables a teacher to ascertain the degree of the Impairment.

Omagor (2005) suggests that for better inclusion of children with visual impairment in regular schools and vocational education and training institutions there is need for early identification, more training opportunities for regular classroom teachers and follow-up sessions to ensure that skills are being applied in the classroom.

According to Amanda (2009), learners with visual impairments benefit from educational experiences that take into account their unique learning needs. These include the acquisition of knowledge and skills in alternative ways such as by means of specially adapted tactile, visual, and auditory instruction and learning tools. Instructors are expected to demonstrate competence in assessment and instruction, to promote functional literacy in Braille, print, and auditory methodologies and to design educational environments utilizing the most

¹² The general courtesy of helping learners with visual impairment was retrieved from <http://www.as.wvu.edu/cids/terms/brl/trans/htm>

appropriate media to promote learning. This therefore calls for specialized teachers for learners with visual impairment and a curriculum that caters for the varying needs of the visually impaired in vocational institutions.

Arter, (1999) argue that learners with visual impairment would prefer tactile methods of learning or audio-taped books as the primary literacy medium for learning. Visually impaired persons use senses of touch and smell to compensate for their lost sight, as I have experienced with such learners during my lessons as a special needs teacher.

According to Sprangg and Stone (1997, as cited in Lewis, 2005:29), another pedagogical strategy for learners with visual impairment is the teacher's knowledge in the learning processes among the visually impaired. Teachers need to be trained on how to handle learners with visual impairment as these learners are acquiring the vocational skills. Teachers who have the knowledge of how to handle learners with visual impairment help to avoid dropouts from vocational institutions and promote interest of learning among students with visual impairment.

According to a study carried out by Kristensen, Omagor and Onen (2003) on the educational inclusion of children with a visual impairment in Uganda, it was found out that the medium used for reading and writing in vocational institutions was not different from that used to teach ordinary learners. The results of this study reflect that children with low vision and children who are blind did not

know how to read and write. Only a handful of children read both print and Braille.

Arbeiter and Hartley (2002) observed that many teachers seem to take little interest in or responsibility for assessment of learning in the classroom, about whether children follow or understand what is being discussed and explained in class. This may be due to large numbers of learners in the class.

Stuckus (2002) observed that many teachers working in units for deaf-blind children in Uganda do not have adequate training to teach learners with visual impairment (deaf-blind) and on top of that, teachers are demotivated by prevailing negative attitudes by the community about special needs children.

According to the *American Action Fund for Blind Children and Adults/ American Brotherhood for the Blind* (AAFBCA/ABB) (2003), students with visual impairment lack the skills of mobility and orientation. Teachers need to be sensitized on orientation and mobility skills in order to address the needs of all students with low vision and blindness. Orientation involves knowing where you are in relation to your physical and social surroundings, where you are going, and how to get to a destination by interpreting information in the environment, mobility on the other hand involves moving safely through the environment. Navigation and orientation skills with the white cane and independent community travel must be taught, assessed and followed up by the certified orientation and mobility instructors. Orientation and mobility emphasizes a fundamental need and right of people with visual impairments to travel as independently and safely as

possible. The AAFBCA further explain that Individual Education Programs (IEPS) should be emphasized especially when teaching learners with visual impairment.

Learners who are blind will generally require modifications in four major areas like Braille, use of residual sight, listening skills, and mobility training¹³. All the above modifications will lead to independence of persons with visual impairment in their communities. Learners with visual impairment should be encouraged to use the residual vision.

Mjelde (1995:145) asserts that in workshop learning, learners work through activity, interaction, and cooperation. The pedagogy involves the work of the hand in relation to the work of the brain. Building a learning model based on workshop learning is a unique process for acquiring new knowledge and gaining the direct experience useful for later comparative knowledge acquisition. Mjelde further explains that students learn by cooperating with teachers, mentors and with fellow students. Learning is through work activities “at the work bench”, hand and mind stand in a dialectical relationship to one another in the learning process itself. One learns not only with the head. The whole body is in the activity, and the activity is socially oriented to the world of work and all its inter-human relationships. A teacher demonstrates and instructs and goes from student to student demonstrating the use of materials and machinery. Students work together on the technical tasks. Learning occurs in the processes where the learner carries out actions together with a more competent person. This is a very useful

¹³ The four areas to be modified for learners with visual impairment was retrieved from <http://www.slc.sevier.org/visimp.htm>

aspect when teaching learners with visual impairment. There is an extra need for skilled mentoring by instructors who can help the visually impaired not only to enter what Lave and Wenger (1991) call a “community of practitioners” but can find ways to become members of such a community.

Learners with visual impairment need a one-on-one kind of instruction and much of what is learned should be done practically. However, according to my own experience as a special needs teacher in special needs education, this approach of learning can be hindered by the lack of trained staff and funding for sufficient special devices for learners with visual impairment.. This has left teachers with the option of using theoretical methods of teaching, where whatever vocational information is learned occurs only in the head and is highly inappropriate for persons with visual impairment.

Okello (2009:26-29) observes that there are many contradictions in the vocational training system of Uganda. In his presentation to the MVP Masters students’ class on the contradictions and complexities in vocational education, he clearly pointed out that the nature of the Ugandan educational system is generally theoretical. Even the courses that should be taught practically are taught theoretically, due to lack of technological investment in higher education, outdated practices among the teachers of vocational education and a poor attitude towards skilled manual labor among the highly educated people in the country. Consequently the Ugandan educational system is producing agriculturists who do not know how to operate the combine harvesters and civil engineers who do not know how to drive a bulldozer; as a result, the type of education given to students

is often not relevant to the demands posed by the job market. This situation is also applicable to learners with visual impairment..

Okello (2009) further explains that our schools are faced with the problem of large numbers of students due to the mandate that has been given to all learners under different policies as seen in (chapter one above). Learners with special needs are educated in large mainstream classes and this prevents teachers from interacting closely with learners with visual impairment on an individual basis. Consequently, ensuring that each student masters the skill can be very difficult. This is a great disadvantage to learners with visual impairment. Many drop out of school and remain dependant on others for their subsistence. According to this study, and my own experience in the field of special needs education, many such learners have dropped out of school due lack of attention from the ordinary mainstream teachers.

2.4 The attitudes of instructors towards learners with visual impairment

An attitude is a hypothetical construct that represents an individual's degree of like or dislike for an item. Attitudes are generally positive or negative views of a person, place, thing, or event.¹⁴

Attitudes are judgments. They develop on the ABC model (affect, behavior, and cognition) {Van den Berg et al., 2006; Eagly & Chaiken, 1998}. This study

¹⁴ The above definition of attitudes was retrieved from [http://en.wikipedia.org/wiki/Attitude_\(psychology\)](http://en.wikipedia.org/wiki/Attitude_(psychology)) by Van den Berg et al., 2006; Eagly & Chaiken, 1998)

looked at the instructor's attitudes of learners with visual impairment in the selected vocational education and training institutions.

According to Atim (2005:78), many students with visual impairment have reported harsh treatment and negative attitude from teachers and fellow learners in vocational institutions.

Kristensen and Omagor (2005) explains that many teachers are still not able to sufficiently assist learners with visual impairment in an inclusive school due to the negative attitude attached to learners with visual impairment. Teachers also receive limited in-service training and supervision on how to develop a child-friendly class that can accommodate the diversity among the learners. Lack of a child friendly environment and a lack of sensitization among fellow learners about the needs of students with visual impairment cause stereotyped labeling, and cause segregation of the special needs learners by the able-bodied learners. I also found that many teachers have neither time to sensitize the able-bodied to the needs of the visually impaired nor the patience need in dealing with learners with visual impairment causing dropout of learners. Omagor (2005) further explains that learners with visual impairment require hands-on learning which in a poor country like Uganda was not seen in the classes. The present researcher is in agreement with the above observation; according to my experience as a special needs teacher, ordinary teachers tend to abandon learners with special needs to the special needs teachers. They claim that special needs children are difficult to teach and indeed their learning needs are time consuming. And others do not even want to touch the impaired person. They are so inexperienced that some believe

visual is both impairment is contagious and genetically communicated. According to a base line survey on inclusive education by Chavuta (2008), teachers were found to have a negative attitude towards learners with visual impairment. The study also revealed that teachers had no skills of teaching learners with visual impairment. This according to my experience as special needs teacher causes drop out of learners and poor performance by learners with visual impairment.

According to my experience as a special needs teacher, I have observed that the non- special needs teachers generally lack sensitization about learners with visual impairment. Ordinary teachers believe that such learners are a curse and are academically poor. This feeling about learners with visual impairment discourages learners from continuing with their education and eventually causes many to give up and drop out.

Conclusions from Findings of Literature Review

From the above literature review, the need for special devices and a curriculum that links learners to the labour world is emphasized by most scholars. Coupled with the above, the use of relevant curriculum, right pedagogical approaches and having positive attitude towards learners with visual impairment are all of great need to enhance learning for persons with visual impairment in vocational education and training institutions. From the study, the above areas of concern are still wanting. This is needed in order to fully equip learners with visual impairment with the relevant skills and knowledge to fit in their societies.

CHAPTER THREE

METHODOLOGY

3.1 Introduction

The aim of the study was to investigate the vocational learning experiences of the visually impaired learners in the selected vocational education and training institutions (VET).

This section presents at the research methods that were used to collect data. It also describes the research design, area where the study was carried out, population sample, instruments/ methods of data collection and procedure that was used for data collection, sampling procedure, and methods of data analysis.

3.2 Study Design

The study is of a descriptive research in nature; the characteristics of a descriptive study as presented by Neuman (2007) are similar to those in this study. According to Neuman (2007:16). Descriptive research presents a picture of the specific details of a situation, social setting or relationship; it focuses on ‘how it happened’ and “who is involved. Newman further explains that in descriptive research, a researcher begins with a well defined subject; he or she conducts a study to describe the subject accurately and the aim is to provide a detailed picture of the subject. This enquiry into the vocational learning situation of the visually impaired has sought to accurately describe the experiences of learners with visual impairment in vocational education and training institutions in Uganda to give a clear picture of what takes place during learning. Having established a picture of

the existing situation the aim has been to make recommendations, where possible, to improve the learning of people with visual impairment.

3.3 Study Area

The study was carried out in two vocational institutions in Uganda (Institution A and Institution B). Institution A is situated in Mbale District and Institution B was situated in Mukono District. Both of the institutions used in this study were found in the eastern part of Uganda (see Appendix V) and they enroll only learners with visual impairment for skills training in various vocations.

Institution A is one of the oldest institutions for the visually impaired. It was established by the Uganda National Association for the Blind (UNAB) in 1970 as a response to the policies that advocate in favour of education of people with special needs, as mentioned in Chapter One. Institution B is owned by an individual who is visually impaired. The researcher sought it would give a deeper understanding of the experiences of institutions “of” and “for” persons with visual impairment.

3.4 Target Population

A population is the “complete set of individuals, objects or measurements having some common observable characteristics Mbaaga, (2000:8). The total population for this study was small, it consisted of four administrative staff members, ten teachers/instructors and ten trainees/learners with visual impairment from the two vocational training institutions. The population totaled twenty four. Learners with visual impairment were used in this study because the researcher wanted to know their learning experiences, while administrators and instructors were used because

they are responsible for equipping the learners with knowledge and skills at the vocational education and training institution.

3.5 Study Sample

The study sample was composed of two administrative staff member from the selected vocational institutions, six teachers and nine learners with visual impairment. Hence, the total number of respondents used was seventeen out of the target population of twenty four.

3.6 Sampling procedure

Purposive sampling technique was used in this study. According to Kothari (2002:73), purposive sampling consists of deliberately selecting items for study. For this study purposive sampling was adopted for all the respondents due to the fact that the respondents were few and the researcher decided to interview all of them including the administrators and instructors.

3.7 Methods of Data Collection

Primary and secondary data were collected using an interview guide, an observation guide and documents were studied.

3.7.1 Interviews

Kvale and Brinckmann (2009) describe interviewing as (1) a craft, (2) the social production of knowledge (3) a social practice that places the interviewee in a conceptual framework where the interviewer's collection of data rests upon his/her skills and personal judgment as a craftsman who internalizes the interview,

designs it, carries out the interviews, transcribes them, analyses, verifies the data and reports the findings.

The researcher designed interview guides (Appendix iii, iv, and v) and a check list (appendix vi) which were used to gather in-depth data from the administrators, instructors and learners with visual impairment from the two selected vocational education and institutions, (A & B).

Interview guides were used with open-ended questions to collect in depth information from both the administrators, instructors and learners with visual impairment to determine the learning experiences of the visually impaired persons enrolled in vocational training institutions to learn vocational trades.

The researcher carried out a face-face interview with each respondent at different times and different venues within the institution so as to get clearly the views of the different categories of respondents to similar questions. Different days of appointment for the interview were made to each group of respondents' in order to make it more natural and sensitive to the shyness of respondents, especially the learners with visual impairment who are very sensitive to people who are not visually impaired. During the interview, the researcher recorded the responses in her note-book and later on organized the data for analysis.

The interview method of collecting data from the visually impaired involves presentation of oral-verbal questions and reply through oral-verbal responses (Kothari, 2002, p.120). In this study the researcher used personal interviews and focused group discussions.

3.7.2 Observation

The researcher employed physical observation to explore information on the notice boards and the relationships between actors, to note aspects of curriculum in the time table and that which was actually being taught in class, she also made note of attitudes of and towards learners during the vocational practice and vocational theory teaching and also participated in the practicals as a participant observer. I participated in various practical lessons like knitting, poultry-feeding, and agriculture. During this time the researcher used an observation checklist to study the pedagogical approaches used by instructors and the students' response to the approaches of teaching.

3.7.3 Documentary analysis

The researcher took some time to explore the documents on notice boards and in the office to ascertain the actual knowledge and skills taught to learners with visual impairment at the institution. This helped the researcher to compare the information which was collected during the oral interview with the administrator.

3.8 Procedure of Data Collection

Before going out for data collection, I obtained a letter from the Faculty of Vocational Studies at Kyambogo University addressed to the institutions of the study. This letter introduced me and explained the purpose of the study. I then took into consideration the nature of the population and then designed an interview guide, and an observation guide to cover the objectives of the study.

These were my main research tools. The researcher then went out to the field for the study. While in the field, I interviewed the learners who are visually impaired as they were engaged in different venues within the two institutions and recorded their responses in a note-book. I also employed the observation method during the interview in order to confirm the responses. The researcher took some photographs in order to get a visual record of the institutions and the venues where data were collected. I also got involved in the actual formal learning/teaching process. Administrators and instructors were interviewed individually in their respective places of work.

3.9 Data Analysis

Collected data was examined, tabulated and coded in order to establish the major themes and the sub- themes following the objectives of the study and research questions. Data obtained from the respondents responding to the research questions, together with observation notes were processed and analyzed descriptively. Comparison and contrasts were made against the responses in order to pin-point the meaning they yield. Responses were presented with the help of direct quotes and photographs

CHAPTER FOUR

PRESENTATION, ANALYSIS AND INTERPRETATION OF FINDINGS

4.1 Introduction

In this chapter the researcher presents, analyses and interprets the findings that were gathered through documents, observing and interviewing the different categories of respondents. The data were drawn from three categories of respondents in two vocational institutions who for purposes of anonymity are here referred to as institution A and institution B. The categories of respondents included two administrators from each institution, five instructors from each institution and five students with visual impairment from each institution as described in chapter three. The learners with visual impairment in these vocational institutions were basically those who were totally blind and only learn via Braille or other non-visual media. They learn using tactile aids, that is, they learn through the sense of touch. Presentation of the findings is based on the research objectives which were in terms of:

1. The access to special devices used to enhance learning for the visually impaired in selected vocational education and training institutions;
2. The Curriculum offered at the selected vocational education and training institutions;
3. The Pedagogical approaches used to teach persons with visual impairment at the selected vocational education and training institutions;

4. The attitudes of instructors towards learners with visual impairment at the selected vocational education and training institutions.

4.2 Presentation of Findings

The data collected from the two institutions using the same tools for similar categories of respondents in the two institutions are hereby compared to one another.

4.2.1 Data analysis and interpretation of Objective One

Objective One sought to determine the experiences of learners with visual impairment in terms of access to special devices used to enhance learning for the visually impaired learners in the selected vocational education and training institutions.

From Institution A, regarding the availability of special devices, the researcher found from observation and questioning learners that there were no special devices that enhance learning for the visually impaired in either of the vocational education and training institutions. However three of the respondents indicated that there were a few old devices such as one knitting machine, one Braille machine and one white cane available for the learners with visual impairment. These were shared during the practice periods and used for the teacher's demonstrations during vocational theory; yet there were five students to share one device. One of the learners reported that they brought the special devices (Braille machines) from their homes on admission and those who could not afford such

devices, had to borrow from friends. From the interview, one of these respondents with visual impairment said:

I am an orphan and my guardian cannot afford to buy for me a Braille machine, so I most of the time miss the lessons that require print to be transcribed into Braille. And as such I fail to perform the practicals. Sometimes friends refuse to give me their device, so I do without it and yet on admission, we are assured of Braille machines in the institution.

One common experience I have found with learners with visual impairment is that most of them come from economically poor backgrounds. Their severe poverty affects their learning. They cannot afford the devices for visually impaired learners, and being poor they do not have networks or self-confidence that might help them mobilize such devices.

Braille machines for each student are essential; these machines enable people with visual impairment to transcribe print into Braille. The print in Braille form can be used in vocational theory to inform the learners about vocational practice. So these special devices are of a great importance to people with visual impairment and should be provided to each individual during theoretical learning, whether general or vocational, in order to enhance the vocational practice and competence of the visually impaired learners. Those responsible for equipping the learners are the state, education agencies and well wishers among the public.

In Institution B, learners with visual impairment also indicated that they had few special devices, one knitting machine and one Braille machine that were old. However, five learners had to share these two special learning devices. Unlike A, where learners bring their devices from their homes on admission, learners in

Institution B shared the special devices from the institution despite its inadequacy. Learners with visual impairment were made to share the special devices, working in pairs at the knitting machine and three at a time around the Braille machine. In this case learners from institution B were disadvantaged further as those who could afford the special devices were not encouraged to bring them. Learners with visual impairment are generally from economically poor backgrounds and so cannot afford to purchase these devices for use by their children. And those who got them received from Norwegian government under NORAD program free of charge through Uganda National Institute of Special Education (UNISE) to the Education Assessment Resource Services (EARS).

According to the instructors from institution A, special devices was not known to them and often referred to the Braille machine as “that box”! except for one instructor who was an instructor for Braille and was himself visually impaired. The instructors in this institution reported that they used ordinary equipment such as a knitting machine for knitting sweaters, feeders and drinkers for feeding poultry, tins and containers for baking cakes and ordinary saucepans for cooking. One of the instructors in this institution said:

We do not know what special devices are. We teach learners with visual impairment just the same way we teach an ordinary person. And besides, we are not trained to teach students who are blind; we are just giving a helping hand. We find it very difficult to teach practical work because they do not see these ordinary tools, and equipment we use for teaching.

Teachers of learners with visual impairment need to be sensitized on how to handle the visually impaired learners in vocational education and training

institutions. Visually impaired learners need special pedagogical help like individualized educational programmes, task analysis, demonstration and experimentation using special devices (hands-on learning). The teachers should also have skills in Braille reading and writing so that they may be able to label tools and equipments in Braille for easy identification by the visually impaired (tactile method). According to my experience as a special needs teacher, learners with visual impairment quickly lose interest in learning, when they are not given special attention, frequently they drop out of school.

Similarly, instructors in Institution B reported that special devices were not available and ordinary equipment like saucepans for cookery, knitting machine for knitting sweaters and ordinary hoes for agricultural purposes were used to train learners with visual impairment. Learners with visual impairment need modified hoes and saucepans with long handles to avoid accidents. Different parts of the machine should be labeled in Braille to enable learners with visual impairment to assist them to acquire vocational skills.

In Institution A, administrators reported that they possessed few modified tools or special devices for teaching and enhancing learning for persons with visual impairment. The special devices was limited to one knitting machine used to train learners how to make sweaters, one Braille machine used to communicate vocational theory work for the visually impaired, one white cane used to train

learners in gaining mobility and orientation skills, two feeders and two drinkers for feeding poultry.

When asked to explain how some of these special devices are used to enhance learning for persons with visual impairment, the administrator from institution A, explained that

white canes are designed to allow the visually impaired person to move about with a maximum of safety from one workshop to another with or without aids. They are used in areas where the risk of collision or injury is great. However, the administrator also reported that most learners with visual impairment prefer to explore and investigate their surroundings with their hands. And I quote:

We encourage visually impaired learners to walk without the white cane because once an object knocked a learner with visual impairment, that learner will know how to pass through there next time.

According to Ausubel and Illeris (2002:28) as quoted by Inglar et al (2002:7) the most important element in learning is what you know from before. That is to say the stone that once knocked you will teach you not to pass through there again, hence the experience has been pedagogical.

The Braille machines, the administrator explained, are used to transcribe the vocational theory information from print into Braille for easy reading and to promote vocational competence. Labels of other different special devices like hoes, saucepans, knitting machines, and feeders are Brailled for easy identification by the visually impaired.

When the same subject was raised with the administrators from institution B, I learned that there was equally scarce equipment such as one knitting machine and one Braille machine which were shared by the learners with visual impairment. On how these devices enhance learning for persons with visual impairment, the administrator had the same response as administrators in Institution A, that the knitting machine is labeled in Braille to make it tactile and easy for identification. The Braille machine was actually used by learners with visual impairment for branding and identifying the tools and materials in the institution.

From the above findings and my own observation, there were insufficient and inadequate special or modified devices in both institutions. The few that were available were in a sorry state. They were obsolete, in poor maintenance and would break down often. . However, though the devices were inadequate and obsolete, learning was going on by means of the learners coping as best as they could, sharing the scarce learning resources available.

Special devices that were found in the selected vocational education and training institution



Figure 4.1 A blind instructor demonstrating to the researcher on how they use the white cane to move from to the garden; in terms of mobility.
Source: Researcher

A white cane is used for mobility and orientation within the surrounding. The instructor uses it to detect and locate the road or curb using constant contact technique.



Figure 4.2 Braille machine.

Source. Researcher

The Perkins Braille machine can produce Braille efficiently. It is sturdy and portable. This is one of the machines students use to Braille their work at the vocational institution. The print is transcribed into Braille using the Braille machine. This makes it tactile and easy to be read by the visually impaired.

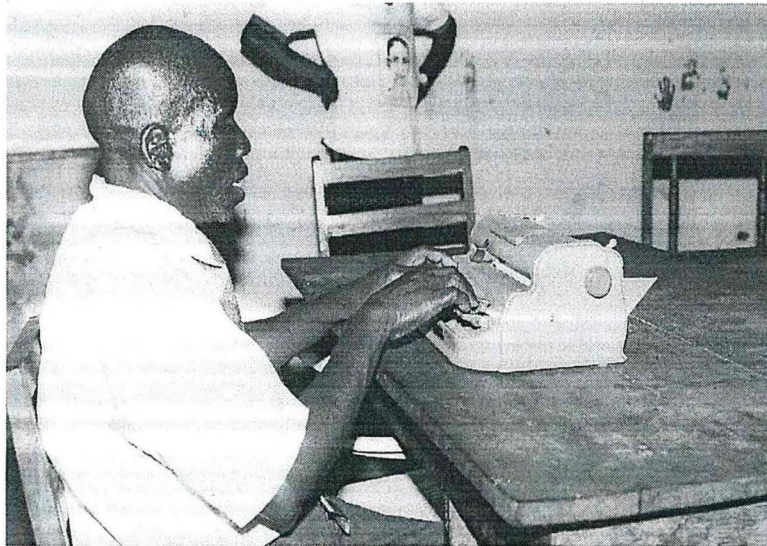


Figure 4.3 blind instructors demonstrating to the researcher on how they use the Braille machine.

Source: Researcher

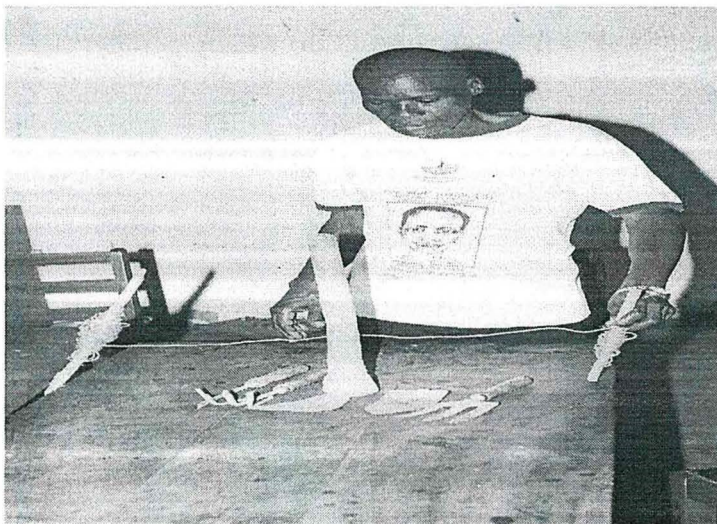


Figure 4.4. An instructor demonstrating to the researcher on how they use the string to make straight lines in the garden. Learners would feel the string and the tools with their fingers.

Source: Researcher

4.2 .2 Data analysis and interpretation of Objective Two

Objective two sought to determine the experiences of learners with visual impairment in terms of curricula offered at the selected vocational education and training institutions.

In Institution A, the curriculum was composed of poultry-keeping, cookery, agriculture, knitting, tailoring, handicrafts, guidance and counseling, sports and recreation, music dance and drama, mobility and rehabilitation, activities of daily living, Braille reading and typing. This curriculum was meant to equip learners with visual impairment with knowledge and vocational skills that would enable them live independently and fit into the world of work.

Similarly, the curriculum of Institution B had the same content except that poultry keeping and guidance and counseling were not reflected in its their curriculum.

In an in-depth interview with learners with visual impairment on the relevance of the curriculum used in the institution, learners had varying responses.

In Institution A, learners with visual impairment reported that the curriculum would enable them to acquire skills and knowledge that could make them employable in the world of work. Skills in poultry keeping were so much appreciated by the learners. One learner had this to say:

My sister graduated from this institution and now she has a poultry farm where she sells chicken. She has bought a house and people love her so much. That's why I want to learn poultry keeping.

This means that poultry keeping is one form of the vocational training that can equip learners with visual impairment with skills needed in the labour market. Poultry raisers currently can earn a decent living. During the practice, learners enjoyed poultry feeding so much that they competed to use the two available poultry drinkers.

However, as much as learners with visual impairment appreciated the contents of the curriculum, some learners with visual impairment in this institution were of the view that the curriculum was old, outdated and could not respond to the current labour market which requires computer knowledge. One respondent spoke directly of needed computer skills:

We need computer knowledge so that we can fit in the labour world. I got a part time job and in this job I was required to emboss the print work into Braille using the computer, but I could not because I did not have the computer skills.

Learners with visual impairment need computer knowledge in order to acquire jobs in this current world of work. Vocational institutions for learners with visual impairment require the talking computers which have been specially designed for their needs. Talking computers speak the words that appear on the screen. The synthesized speech of a talking computer is clear enough for most people for visual impairment to understand readily upon hearing it.

One learner with visual impairment was much interested in being a counselor and had this to say:

Our curriculum is good but lack of special devices and trained teachers makes us miss some of the contents of the curriculum, like guidance and counseling. We need this course content because it enables us to accept our condition and be able to guide and counsel other people with visual impairment. I personally want to be a counselor, so if I am not taught these skills then I do not think I can become one. My sister is a counselor and this has made her have many friends, and I want to be one also.

From the above responses it's clear that learners with visual impairment are inspired to sign up for vocational training through their social networks and their blind relatives and friends just like able-bodied persons. This healthy response arises in spite of the social stigma of disability that is often affixed to the homes of people who have special needs children. Such children used to be hidden away from visitors because it was believed to be both a genetic and God-induced curse to have children. For instance, blind children are believed to have been a punishment for parents who are related. This is the case for Sebei culture in Kapchorwa District of eastern Uganda where I hail from.

However, the challenge I saw in Institution A was that the curriculum was compacted with many different course contents and yet I observed only a few skills being taught to learners. This appears to have been due to lack of trained instructors. Guidance and counseling for learners with visual impairment is very essential as they need to accept the challenge and the barrier to learning that are imposed by their special need. Receiving guidance and counseling and learning to guide and counsel others will enable them to live confidently with a positive attitude towards life.

Unlike in Institution A where learners had varying views on the contents of the curriculum, learners with visual impairment in Institution B were contented with their curriculum. Respondents indicated that their education levels would not enable them to acquire white collar jobs, but all they needed were basic skills for survival in their communities. Basket-weaving, cookery, and knitting were among the curriculum contents. One respondent reported that: "*When people see us*

making baskets, mats, and sweaters, they will change their attitude towards us. People think we are useless in society”.

The feeling in society at large that disabled people are not able to perform any activity adds to the handicap that learners with visual impairment live with. In African traditional society learners with visual impairment did not have the degree of prosperity that would allow support for the disabled. People with disabilities were regarded as useless and were hidden or rejected, but these feelings and attitudes have changed. People with special needs have recently fought their way into mainstream society and shown the so called able bodied people that they can perform like any other person given the appropriate opportunity, respect, education and particularly vocational skills and knowledge.

Instructors in Institution A had similar views on the curriculum for learners with visual impairment. Instructors indicated that learners with visual impairment needed vocational skills to enable them live independently in their communities. One instructor who was visually impaired expressed the need to provide learners with visual impairment with special devices that can enhance their teaching and learning of these skills. This instructor observed that his colleagues find it very difficult to teach the visually impaired without pedagogical skills for working with special needs children and special devices. The visually impaired instructor calls learners to gather around at device like a Braille machine and then he instructs the learners to touch and explore the different keys of the Braille machine while he names the different parts of the machine and their functions.

Workshops were organized weekly to sensitize the instructors on the needs of blind students. These workshops were carried out during weekends, but still instructors were unable to attend. As to why they did not attend, two respondents had this to say: *“We live far away and it becomes very expensive to come here every weekend and besides, we do not intend to work with the visually impaired permanently. We are just giving a helping hand”*.

This implies that such teachers are not committed to special needs teaching. They intend to build their careers elsewhere and thus they exhibit the main stream attitude of “helping the poor unfortunates” but not helping them to help themselves and become independent.

As observed in the findings, vocational education and training institutions aim at equipping the visually impaired with skills that are mainly to enable them live independently in their communities. Whereas these institutions aim at equipping learners with visual impairment with skills for survival, instructors do not have the skills to impart the knowledge and skills, and they do not appear to have the morale and attitude to work with the visually impaired in vocational institutions. As part of a general policy to eradicate poverty and discrimination, government should not only increase special needs funding but train and deploy more special needs teachers specifically for the visually impaired in vocational education and training institutions.

Similarly, in Institution B, instructors appreciated the contents of the curriculum and indicated that the knowledge and skills taught to learners were meant to equip them with survival skills. As was the case in Institution A, instructors in Institution B also faced the problem of insufficient special devices or “teaching aids” as they are called. This, according to the instructors hindered the acquisition of skills by the visually impaired.

Administrators from both institutions had similar views on the contents and relevance of the curriculum followed in the vocational institutions. Their major view about the contents was that it was based on the needs of the learners. The administrators reported that assessment of learners was under-taken on admission and the curriculum was designed based on their needs. The challenge posed by the lack of trained instructors hindered the teaching of other course contents. Teachers untrained in visual impairment instruction were employed on a weekly basis, but were demoralized by the low payments they received. The instructors were paid three thousand shillings for transport and five thousand per day for all the lessons taught. Teachers suffered as well from no positive acknowledgement of the important work they were doing, a lack of recognition of their important work, no praise and neglect from society and government. This is in keeping with Professor Nilsson in his presentation on “human and the task” to MVP students of Kyambogo University in February 2009, who said “learning for the learner and teaching for the teacher is always connected with efforts and appreciation”.

4.2.3 Data analysis and interpretation of Objective Three

Objective Three sought to examine the pedagogy used to enhance learning for persons with visual impairment at the selected vocational education and training institutions.

Pedagogy was used here in terms of the methods instructors used to convey the knowledge and skills to learners with visual impairment in the selected vocational education and training institutions.

In Institution A, the majority of the learners with visual impairment reported that vocational theory was taught alongside vocational practice. There was no specific time allocated for vocational theory or vocational practice, but both were taught concurrently. There were no general knowledge subjects taught to learners with visual impairment. Learners with visual impairment reported that learning was done sometimes in groups of three and sometimes individual. The grouping was done mainly to minimize the problems created by scarcity of special devices. However, I observed that some learners were not willing to share the special devices with the friends. One of the learners did not want friends to touch his Braille machine due to fear that they might damage it. Individual learning was used when it came to assignments. Learners were given course assignments to transcribe work into Braille. Some learners were not able to do their work. When asked why they were not able to do so, one respondent said:

I did not have my own machine and when I asked my friends to lend me theirs, they refused. My friends told me that I did not know how to use it and might break it.

It was evident from such response that learners with visual impairment are hindered by the lack of special devices. And due to that there was insufficient group work and therefore inadequate pedagogical instruction to the learners that are needed to enhance learning. In this institution, the grouping of learners was done as a method of learning and also for the sake of minimizing the problem of inadequate devices rather than as an essential form of learning. The learners were not taught general knowledge and this is an indication that there is a gap in their vocational education and training. The implication is that they are considered as lesser human beings capable of training their hands but not their minds and their hearts. General knowledge is very important in vocational education because it provides for relational knowledge (Nilsson 2009). Through general education, the learners will acquire certain values, gain the ability to relate different types of knowledge, change behavior, and add knowledge which will enhance their literacy and numeracy abilities.

Similarly, in Institution B, learners were not taught general knowledge. Emphasis was on vocational practice and vocational theory which were taught concurrently. Unlike in Institution A where there was individual work in the form of learning assessments, Institution B had no individual learning activities. The learning was done in groups as in most vocational trainings in the world, learners were divided into groups (of three) and assigned tasks to perform as the instructor went round helping each of them. Learners were assigned tasks of basket-weaving, mat making and their products were assessed in terms of competence of execution. In this institution B, learning was found to be highly interesting and learners enjoyed

their way of learning, unlike in Institution A where learners did not want to share their devices with friends. When asked how they felt about the mode of learning, one respondent said:

“We want to learn in groups because we always want to consult each other and we learn from one another, besides we want to share the devices we use for learning”.

With regard to the methods used to teach learners with visual impairment in Institution A, the majority of instructors interviewed indicated that they used group work to teach learners. This was preferred by the instructors due to the shortage of devices rather than as a pedagogical form of promoting learning. Instructors also reported that the visually impaired learn better when they are grouped among the visually impaired. In general learning theories group work is a pedagogical strategy that can enhance learning for both the able-bodied learners and those with special needs including the visually impaired.

Whereas this method of learning was good, I observed that instructors grouped the new students with the old ones and expected them to perform at the same level. One respondent had this to say:

“Our instructors are harsh and expect us to grasp concepts at the same pace with the students who were admitted earlier than us. Some of us are in the third month and others have just joined the course but we are all expected to perform the practicals the same way which is not fair because we have not mastered how to do it!”

This is in contradiction with the findings of Lave and Wenger (1991) that those in the centre of a community of practitioners, or least those with some practical

experience in the group, can effectively help those just beginning and who are “at the periphery” of vocational community. This will help in deepening knowledge by helping the new learners and consolidating knowledge. As seen from the findings, group work was more preferred by both instructors and learners with visual impairment, however instructors seemed not to know that learners with visual impairment need guidance even when they are learning in their groups.

When interviewed on how assessment was done in Institution A, the majority of the instructors indicated that, theory work and practical sessions were the bases for student assessment. Practical sessions were carried out in various places depending on the activities. Poultry keeping practicals were done in the poultry house; agricultural work was done in the garden, while Braille transcribing was done in the classroom. Vocational theory was done along side the practice sessions. Continuous assessment was done and at the end of six month course assessment was carried out.

How long a student was to stay in the course depended on how much money a learner paid, but the duration of all courses was six months. However if a learner had not acquired the skills required within the six month, he or she was required to pay extra fees to continue. At the end of the course, they were given a certificate of proficiency.

Learners with visual impairment in Institution B were assessed the same way as those in Institution A. The duration of the courses in Institution B was three months. This was because their course units were few and could be mastered in a

three-month period. Unlike in Institution A where learners were expected to pay an extra fee after the required duration of the course elapsed, learners in this institution were not expected to pay any extra money.

According to the administrators in Institution A, group work was preferred due to the fact that special devices were not sufficient for each learner. Administrators also indicated that learners with visual impairment preferred to learn from fellow learners with visual impairment instead of being subjected to instructors who were very harsh in their treatment of the learners. Instructors preferred group work as the preferred form of learning and to minimize the pressure on scarce devices.

Administrators in Institution B also preferred training learners with visual impairment in groups and all the learning was done in groups. This was also associated with shortage of special devices.

According to my experience as a special needs teacher, learners with visual impairment prefer to learn from fellow blind people. So this means the shortage of special devices is a blessing in disguise because it gives them the opportunity to learn in groups, hence, socializing and sharing their experiences. In vocational pedagogy, group work is one of the aspects of vocational didactics and is very much emphasized in vocational studies.

As far as this objective was concerned, most vocational institutions used group work to train learners with visual impairment. This method of learning was also

preferred by learners in both vocational institutions. However this method is affected by lack of sufficient devices for the visually impaired.

4.2.3 Data analysis and interpretation on Objective Four

Objective Four sought to examine the attitudes of teachers/instructors towards learners with visual impairment at the selected vocational education and training institutions.

In Institution A, the majority of the instructors were of the view that learners with visual impairment were “so difficult to handle” and they were “short tempered”. They refused to wait and share the scarce special devices with other learners. When asked how they felt about teaching learners with visual impairment, the majority of the instructors indicated that they were not interested in teaching the visually impaired due to low pay by the institution, lack of praise and motivation, lack of teaching aids, lack of equipment and lack of investment in special vocational devices for the visually impaired, and due to the chronically frustrated behavior of the visually impaired. Some few instructors reported that learners with visual impairment irritated them due to their impatience. On the other hand one visually impaired instructor from the same institution (A) was very comfortable working with the visually impaired. This is what he had to say:

“I prefer to work in a community where people are blind than working in community of sighted people. People still have a negative attitude towards blind people. People look at us as dependants who can not do anything apart from begging. That is why I am interested in equipping these

students with skills and knowledge that can make them independent in their communities”.

From the above statement, it is evident that people with visual impairment are more comfortable working with fellow blind people than with sighted people. This is because they have earlier shared the same frustrated learning experiences that today’s learners are experiencing. People with visual impairment also still feel inferior. Their experiences leads them to feel that sighted people look at them as rejects, something that is not exactly the case, although there is lack of sufficient communication of perceptions between the sighted and the sighted impaired.

In Institution B, instructors reported that they were comfortable working with people with visual impairment. One of the instructors had a relative who was blind, being familiar with blind people she did not feel threatened by the experience of having to find ways to teach those without sight. She enjoyed her work and only complained of the low payment. She received for her work.

The same interview format was administered to learners with visual impairment in both Institutions A and Institution B, in order to determine their feelings on how they felt about their instructors. The majority of the respondents in Institution A indicated that instructors were too harsh towards the learners and had no patience when teaching learners with visual impairment. The only exception was the Braille lessons where the instructor being blind himself was friendly. My own observation during the different lessons I observed (like agriculture, poultry-

feeding and the knitting lesson), confirmed the learners view that instructors were not friendly towards learners. My observation were that they tend to use harsh words like “can’t you even see!” or “what is wrong with you?” and one respondent openly said: *“But madam, we cannot see the way you see.”* This annoyed the instructor who ended the lesson prematurely”

This form of exasperated response from learners irritates instructors and they end up getting annoyed and hence reinforcing their negative attitude towards learners with visual impairment. Learners with visual impairment need a lot of patience when dealing with them.

However, in Institution B, most learners with visual impairment were happy and appreciated the work their instructors were doing. This was associated with having relatives who had the same condition (visual impairment) and who had acquired useful and practical skills at this institution earlier.

According to the administrators from Institution A instructors and learners with visual impairment were working together though they faced some challenges. One administrator from Institution A reported that learners sometimes faced harassment from the instructors but they managed to solve the issues. And similarly, instructors also were in the habit of complaining about the learners as being short-tempered and unwilling to share the special devices for learning. According to the administrator this was due to a lack of training on the part of the teachers with regard to handling learners with visual impairment. On this note, teachers were sensitized after hours about how to handle such cases.

In Institution B, administrators had no quarrels with the instructors over learners with visual impairment. Learners were comfortably working with the instructors, except that special devices were insufficient for equality of learning, but the challenge was minimized by sharing the few devices which were available.

Summary of the findings from the two vocational education and training institutions

Differences

- Whereas Institution A uses group work to mitigate shortage of devices, institution B deliberately employs group work as a pedagogical approach.
- Attitudes of teachers/instructor in Institution B were positive towards learners with visual impairment, while those of Institution A were negative.
- In Institution B, learners were more free with their instructors than those of institution A
- The course duration in Institution A was six months while the one in institution B was three month
- In Institution A the two administrators were sighted while in institution B, one of the administrators was visually impaired.
- One administrator from Institution B was visually impaired whereas both administrators in Institution A were sighted

Similarities

- Both institutions preferred group work as a pedagogical approach to learning
- The two institutions had the problem of insufficient special devices and equipment.
- Both curricula aimed at equipping the learners with skills for independent living in their communities and both had the same contents
- Both institutions did not offer the general theory aspect of vocational studies
- All the learners in the two institutions were those who were blind (totally blind)
- Enrollment of learners with visual impairment in the two institutions was equally low.
- Equipment at both institutions was in sorry state.
- Assessment of learners in both institutions was done inform of vocational theory and vocational practice
- Both institutions had insufficient teacher training
- The two selected institution were private

CHAPTER FIVE

DISCUSSION, CONCLUSION AND RECOMMENDATION

5.1 Introduction

Whereas the data were presented, analyzed and interpreted in Chapter Four. This chapter discusses the findings and then offers conclusions and recommendations based on the findings in the previous chapter.

5.2 Discussion of results from Objective One

Objective One looked into the availability of special devices for learners with visual impairment in the selected vocational education and training institutions. The study found that the two vocational institutions had inadequate special devices for visually impaired learners. The few special devices which were available in the two vocational institutions like one knitting machine, one Braille machine, one stylus, one slate, two feeders, and two drinkers were obsolete and frequently became non functional. Learners were made to share these few tools and devices and used them in turns to replicate instructions and demonstration. However during the course of learning, the few available special devices and equipment repeatedly broke down. Learning was discontinued by the instructors before other learners with visual impairment managed to use them. This made learners with visual impairment lose morale. This is in line with the finding of Omagor, (2005) who found that lack of assistive devices was a major concern to teachers of learners with visual impairment. He asserted that provision of adapted materials and assistive devices (as well as training in their use), especially the provision of textbooks in Braille can help improve the learning of the visually

impaired learners in vocational training institutions. Lack of special devices in any teaching/learning program produces at best only partial or incomplete learning. As a result the learners are not competently skilled and not much use in the world of work. Learners graduating from such institutions are ill equipped and lack the skills that would enable them to fit in the world of work (Nilsson, 2009)¹⁵.

Among special needs learner (visually impaired) special devices relate or link learners to the world of work, as it was pointed out by some of the respondents. Nilsson in his presentation to the students of MVP in 2009, professor observed that pedagogical principles and practices embedded in vocational education require a close relationship between school learning and the workplace. From Sweden to Japan, this has been found to affect development of competence positively. Accordingly a program that does not link learning to workplaces is likely to produce ill-trained or incompetent workers. This implies that training in any vocational program in Uganda should seriously consider linking learning to the relevant workplaces for the purpose of gaining the necessary work skills and competencies in that specific vocation. (Nilsson, 2000).

The lack of special devices was associated with the lack of financial and material support from government, despite the little support from donors and parents. Spath (2006), observed that there is need to motivate government agencies, partners, parents and other stakeholders to ensure the incorporation of prevention,

¹⁵ information about appropriate tools and devices used in teaching/learning in vocational education was captured from professor Lennart Nilsson's lectures during his presentation to the MVP students of Kyambogo University 2009, unpublished

early detection, referral, assessment and intervention services into national health, education and (re)habilitation policies and programmes so that all children with special needs can be reached and provided for.

Spath further urges that it is also essential to encourage partners to assist children with visual impairment in achieving their maximum potential and to actively involve their parents and family members in the early training and rehabilitation process. Spath goes on to say that special devices like, Braille translation software and equipment which helps to convert print into Braille and Braille into print should be availed to learners with visual impairment in vocational institutions in order to make reading easy and promote the use of pedagogical principles which emphasize work related approaches of learning that stresses both theory and practical skills. The text information in its print form is converted into Braille using a computer and an embosser. Information from the computer is sent to the embossers for output in Braille.

The findings of the study show that there is need to improve the level and availability of assistive devices for learners with visual impairment in vocational education and training institutions.

Chavuta (2008) noted that technical vocational education (TVET) needs an increased collaboration and networking between Government and Non-Governmental Organizations (NGOs) working in the special needs education. Such collaboration would compel the NGO to provide solutions to some of the problems facing the specialist teachers. The NGOs would for instance build a

resource classroom or buy teaching and learning material for a particular school. And this technical investment should be maintained and upgraded by government once the NGO departs.

With respect to this finding on the inadequacy of special devices for learners with visual impairment (special needs in general) in vocational education and training institutions, the government of Uganda still needs to put more effort to fulfill its intentions for the marginalized groups such as vocational learners in general and special needs learners in vocational education in particular. In fact this is clearly stipulated in vocational education and Training policy (Government of Uganda 2003), which states:

“The TVET system shall take into account special needs groups in the implementation process, geographical distribution of devices, and provision of specific requirements related to disability”.

5.3 Discussion of results from Objective Two

The purpose of Objective Two was to examine the curricula offered at the selected vocational education and training institutions.

The key finding concerning responses to this research objective revealed that the content of the vocational education curriculum offered at these institutions included Poultry- keeping, cookery, agriculture, knitting, tailoring, handicraft, guidance and counseling, sports and recreation, drama, mobility and rehabilitation, activities of daily living, Braille reading and typing.

The aim of this vocational education and training curriculum was to provide knowledge and skills to the youth and adults for independence as it was stated in

their missions. Learning was organized in groups and on an individual basis depending on the activity taken up. The aspect of general knowledge, such as English Math, Science and other academic subjects were not taught to learners with visual impairment. The curriculum for the visually impaired in these vocational institutions was composed of Vocational theory and vocational practice. The study showed that the form of learning was workshop practice and through workshop practice the learners were able to acquire skills to make items like mats, baskets, and sweaters. Learners also made some items for sale and for their own consumption like bread and cakes.

General knowledge was not given priority due to what was considered by the administrators as basic the needs of the learners. According to one administrator, learners were first assessed for their needs; the institutions both found out that most learners needed only vocational skills for survival in their communities and so subjects like math, English and Science were not included in their curricula. This hinders the visually impaired from functioning properly as skilled and educated people in today's world where reading, writing calculating and in general, communicating with the Ugandan society is very essential.

The study also revealed that some contents of the curriculum were not taught due to lack of specialized instructors or teachers. This finding concurs with the findings of Kristensen, Omagor and Onen (2003) whose Ugandan study found out that teachers of the visually impaired lacked the skills needed to teach learners with visual impairment in vocational education and training institutions. Teachers taught all the special needs learners the same way as ordinary learners because

they lacked specialized teacher education to handle specific contents of the visually impaired learners' curriculum. The aspect of vocational pedagogy which emphasizes the hands-on learning was not consciously understood by the teachers. This finding is also in line with a study conducted in the State of Minnesota in the USA, (Brown, Deberry, Welo, & Scholl1985) which attempted to establish a base of information to determine the level of skills and abilities of vocational and technical education teachers in reference to special needs. The study found that even in the most powerful country in the world, vocational teachers did not have skills to train learners with visual impairment.

In vocational education learning involves the combined use of the heart, mind and the hand. Skills competence also requires the same integration between mind, and hand, mediated by human understanding. In this respect, learners are made to value whatever tasks they are engaged in, use their minds and the hands to ably undertake the said tasks while interacting with one another and the teacher (Mjelde 2006). This is at the core of vocational pedagogical principles which address all the methods employed to effect the teaching/learning of an individual taking up group work integrating theory and practice to train for position in the world of work.

Vocational pedagogy is a learner-centered approach to education. It involves mentoring the learner's learning process more than simply teaching. This requires special training great sensitivity. When applied especially to teaching learners with special needs (learners with visual impairment). This is an approach in which the special needs teacher carefully mentors the relation between the student and

the task. This is central; if the work activity itself is the rotation point for learning, as Mjelde (2006) argues that special needs teacher has to find ways to welcome disability in order to unite the learner with the task to be mastered.

Vocational learning and teaching should be focused on tasks, tools, teams, tutoring and time Nabaggala (2009). Vocational pedagogy also focuses on the need to relate general theory to workshop learning and vocational theory. It helps in understanding how best the theoretical teaching of subjects like chemistry, mathematics and physics can be directly tied to the practical lessons. Also, the concept is focused on learning as a social activity (learning in groups) and learning by doing which is learning by practice and experience, through trial and error and through action as a basis to transfer and master skills and knowledge. This role of vocational pedagogy in the teaching of learners with special needs (visual impairment) can be very beneficial especially when learning is related to work life. Learners with visual impairment require learning that involves the use of hands (hands-on learning) because they learn best by touching, exploring and feeling. This was evidenced during the instruction process of this study where the visually impaired instructor from Institution A called the learners around and told them touch and explores the Braille machine.

Hands-on learning in vocational education and training is very important and even more important to learners with visual impairment in relation to tasks and tools.

5.3 Discussion of results from Objective Three

Objective Three sought to determine the pedagogy used to enhance learning for persons with visual impairment in the selected vocational education and training institutions.

As far as this objective was concerned the major finding revealed that the pedagogical approaches used in the teaching of learners with visual impairment were in accord with vocational principles. They mainly learned through group and individual work.

Group work was preferred by the majority of the students and instructors due to the need for learners with visual impairment to share the special devices, learning from one another and for the purpose of socializing with one another, and thereby reinforcing their new knowledge and partial skills. This is in keeping with Mjelde (2006, p. 56), who observed that learning is made meaningful by means of one doing something together with an “expert” in such a manner that the learner gradually masters ever more difficult parts of the tasks at hand. Gradually the learner becomes more capable of carrying out more complex tasks until he/she no longer requires the assistance of the expert. The findings of this study showed that new learners were grouped with old learners due to scarcity of devices, but this became a blessing in disguise because it gave room for learning from one another among the visually impaired. The new learners learned from the old students who as it were acted as experts.

Lave and Wenger (2007) encourage the method of learning by doing for anyone determined to master the content in a vocational field. They have argued that in

practical work newcomers move from the periphery of a vocation toward full participation in the socially constructed cultural (and technical) practices of that community, be it a community of nurses, mechanics, dentists, industrial designers or ceramicists.

According to Vygotsky as cited in Inglar (2002:13) learning is an intellectual and social process where knowledge, skills, ideas, attitudes, and values develop through social interaction. Learners with visual impairment can learn best through interacting with other learners in groups. But it was observed that this was done on an informal basis not as a result of a conscious plan by teachers. Through group work also, learners with visual impairment acquire social skills of sharing and interacting with other people and just as it is through interaction that all learners acquire language and communication skills. According to my experience as a special needs teacher, most learners with visual impairment have language problems due to lack of social skills that reflect a lack of social engagement in local life. And yet language is a tool for expressing ideas and asking questions, as stressed by Vygotsky, and through language, concepts and thinking are established (Inglar, 2002:14). This is further emphasised by Vygotsky cited by Dally¹⁶ (2009), that most children learn more profoundly and more effectively as members of groups than they do as individuals. Learners with visual impairment too can learn best through group work as implied in the findings.

¹⁶ Dr. Richard Dally cited Vygotsky's thought and language (1979). Cambridge, MA:MIT press, during his presentation to the students of MVP 2009, Kyambogo University.

The findings of the study also revealed that vocational theory was taught alongside vocational practice. The findings further revealed that general knowledge was not taught to learners with special needs, indicating that there is a gap that exists in the training of learners with visual impairment in the institutions. General knowledge provides for relational knowledge (Nilsson, 2009) and is an essential feature even in skills acquisition. In other words, vocational training demands an integrated education including general theory, practical learning and vocational related theory.

Mjelde (1995:146) noted that general theory has been disastrously separated from practical skills for a long time. The institutes that do not have general courses need to consider integrating general studies in their curricula so as to cater for the developments within the sphere of technology and the radically altering occupational divisions, as well as the contents and organization of labour which have been addressed to some extent in general courses. Learners with visual impairment need the general knowledge to improve on their numeracy and literacy skills, so as to be able to understand what is being taught in the vocational theory and to understand the thinking that underlines what they learn in practical sessions.

Assessment and evaluation

Assessment and evaluation is one of the pedagogical approaches in vocational education and training. Through assessment and evaluation, both the instructors and learners with visual impairment have the opportunity to share, help one

another and identify areas or gaps in instruction and find alternatives of improving the learning process.

The findings from the study indicated that the institutions carried out assessment of students and awarded them certificates indicating the level of attainment of knowledge and skills by the visually impaired. This indeed constituted a modest form of reward. However, their certificates were not graded by any national examining body, rather, they were institution-based. According to Nilsson (2009), the rewards in vocational learning are mainly in the form of verbal appreciation or in terms of certificates. Learners with visual impairment need to be praised and appreciated in order to motivate them to learn. Teachers too need to be appreciated and praised. I observed instructors marking the Braille assignment which was evidence that some assessment was in progress. Assessment was also done by instructors to evaluate the level of achievement by both the visually impaired and the instructors.

With respect to this objective, it can be said that the selected vocational institutions had group work and individual learning as a pedagogical approach to instruction. The findings also indicated that some assessment and evaluation was done to improve on the learning/instruction process.

5.4 Discussion of results from Objective Four

Objective Four sought to establish the attitudes and training abilities of teachers/instructors at the vocational training institution.

As far as this objective was concerned, the major finding indicated that teachers/instructors were not comfortable with teaching learners with visual impairment. Most of them had complaints concerning the hardships they faced when teaching learners with visual impairment. Respondents indicated that learners with visual impairment were difficult to deal with, short tempered, and slow in learning. This is an aspect/challenge that can simply be dealt with and appropriately by a teacher trained in special needs education and specifically in visual impairment. This finding is in line with Stuckus (2002) who for example, found out that many teachers working in units for deaf-blind children in Uganda do not have adequate training and are demotivated by negative attitudes about special needs children from the community. This internalized negative attitude is often held by teachers regarding both their profession and their learners with special needs.

According to Montfort Special Needs College, Malawi (2004), the lack of support from fellow teachers has made life hard for specialist teachers for learners with difficulties. The regular teachers refuse to assist students with learning disabilities on the pretext that they do not have expertise on how to handle children with disabilities. In other words, they are not always able to consult their hearts and minds to find ways to facilitate special needs learning. Some-times the reason given is simple and straight forward "I am not paid to do that." And yet there is no extra money paid to special needs teachers in Malawi. The same applies to Uganda. This is an experience that I also face in as a special needs teacher. Children with special needs are always described as children put aside for special

needs teachers and rarely attended to by a non specialist teacher who could assist such learners even without special training, if they were sensitized to do so.

According to Mcheka (2004), provision of incentives to the specialist teachers could be a morale booster. Incentives could be in form of a transport allowance to help in their mobility, as they make their routine trip from one resource classroom to the other. Mchaka further argues that staff promotions could also act as another incentive to the teachers. Government should reconsider its position in relation to upgrading the teaching, specifically with regards to promotion periods for specialist teachers. Considering the specialist teachers for promotion soon after their return from college could be a motivating factor. Refresher courses or indeed exchange programmes and regular conferences to discuss specific problems for the specialist teachers could help attract them and keep them in the teaching profession.

From my own view and perspective, the aspect of vocational pedagogy and vocational didactics should also be emphasized in the training institutions in order to improve on the teachers' approaches of teaching. This can be done in teacher training institutions like Kyambogo University, Faculty of Special Needs and Rehabilitation (UNISE).

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APPENDIX I: INTRODUCTORY LETTER FROM THE UNIVERSITY



KYAMBOGO UNIVERSITY

P. O. BOX 1 KYAMBOGO

Tel: 041 - 285001/2 /285037 Fax: 256-41-220464

Website: www.kyu.ac.ug

Kyambogo University Graduate School

Date... 10th... MAY... 2010

To: THE ADMINISTRATOR... NATIONAL TRAINING...
AND RESOURCE CENTRE... MBALE... THROUGH UNAB

RE: LETTER OF INTRODUCTION

This is introduce... CHEBI... SHAMIM... Reg.
No. 2009/HA/004/MVP... who is a student of Kyambogo University
pursuing a Masters Degree in Vocational Pedagogy.

He/She intends to carry out a research on:

TITLE... EXPERIENCES... OF... LEADERS... WITH... VISUAL...
IMPAIRMENT... IN... VOCATIONAL... EDUCATION AND...
TRAINING... INSTITUTIONS... IN... UGANDA

As partial fulfillment of the requirements for the award of the Degree of Master in Vocational Pedagogy.

We therefore kindly request you to grant him/her permission to carry out this study in your organisation.

Any assistance accorded to him/her shall be highly appreciated.

Thank you

Yours Faithfully,

Dr. Habib Kato
AG. DEAN, KYAMBOGO UNIVERSITY GRADUATE SCHOOL

APPENDIX II: INTRODUCTORY LETTER TO THE RESPONDENTS

Dear respondent, I am a student of Kyambogo University pursuing a Masters Degree in Vocational Pedagogy. I am carrying out a study on the experiences of learners with visual impairment in vocational institutions.

I am kindly requesting you to provide the necessary information that will help me to advocate for proper provision of learners with visual impairment in vocational institutions in Uganda.

The information given will be treated with utmost confidentiality.

Thank you.

APPENDIX III: AN INTERVIEW GUIDE FOR ADMINISTRATORS

Section A: Demographic information

1. Name of institution.....

2. Age..... Sex, Qualification

3. What is the Mission and Vision of the institution?

.....

SECTION B: Special devices that are used to teach learners with visual impairment in vocational education and training institution

4. What special devices do you use to teach the learners with visual impairment in this institution?

.....

5. Are the special devices suitable for teaching learners with visual impairment?

.....

6. Give a brief explanation for your answer above.

.....

SECTION C. The relevance of the curriculum offered to the visually impaired learners

7. What are the contents of the curriculum used in this institution for learners with visual impairment?

.....

8. What is the relevance of the curriculum used in the institution to learners with visual impairment?

.....

SECTION D. Pedagogical approaches used to teach learners with visual impairment in the institution

9. What methods do you use to teach learners with visual impairment in this institution?

.....

10. Are they participatory or do they enhance learning for persons with visual impairment? Briefly explain.

.....

11. Do you carry out assessment of learners with visual impairment?

.....

SECTION E. Attitudes of teachers towards learners with visual impairment

12. How do teachers feel about teaching learners with visual impairment in this institution?

.....

13. How do learners with visual impairment feel about their instructors in relation to their teaching?

Remuneration

14. What are some of the methods you use to remunerate your best performing students with visual impairment?.....

APPENDIX IV: AN INTERVIEW GUIDE FOR INSTRUCTORS

Section A: Demographic information

1. Name of institution.....

2. AgeSex.....Qualification.....

3. What is the Mission and Vision of the institution?

.....

SECTION B: Special devices that are used to teach learners with visual impairment in vocational education and training institution

4. What special devices do you use to teach the learners with visual impairment in this institution?

5. Are the special devices suitable for teaching learners with visual impairment?

.....

6. Give a brief explanation for your answer above.

.....

.....

SECTION C: The relevance of the curriculum offered to the visually impaired learners

7. What are the contents of the curriculum used in this institution for learners with visual impairment?

.....

.....

8. What is the relevance of the curriculum used in the institution to learners with visual impairment and the labour world?

.....

SECTION D: Pedagogical approaches used to teach learners with visual impairment in the institution

9. What methods do you use to teach learners with visual impairment in this institution?.....

10. Are the methods participatory or do they enhance learning? Briefly explain

.....

11. How often do you carry out assessment of learners with visual impairment?

.....

SECTION E. Attitudes of teachers towards learners with visual impairment

12. How do teachers feel about teaching learners with visual impairment in this institution?.....

13. What motivated you to teach people with visual impairment?

Remuneration

14. What are some of the methods you use to remunerate your best performing students with visual

impairment?.....

15. How are you remunerated by the institutions' administrators?

.....

**APPENDIX V: AN INTERVIEW GUIDE FOR LEARNERS WITH VISUAL
IMPAIRMENT**

Section A: Demographic information

1. Name of institution.....

2. Area of specialization.....

3. What is the Mission and Vision of the institution?

.....

**SECTION B: Special devices that are used to teach learners with visual impairment
in vocational Education and training institution**

4. What special devices do you use to learn in this institution?

.....

5. Are the special devices suitable for learning the vocational skills you need?

.....

6. Give a brief explanation for your answer above.

.....

7. What are the subjects taught to learners with visual impairment in this institution?

.....

8. Are you given extra time to complete your work by the instructors?

.....

9. What is the relevance of the curriculum used in the institution to learners with visual impairment?.....

10. What methods do you use to learn in this institution?
.....

11. Are the methods participatory or do they enhance learning? Briefly explain

SECTION C: Attitudes of teachers towards learners with visual impairment

12. How do teachers behave when they are teaching you?
.....

13. What motivated you to join this vocational institution?
.....

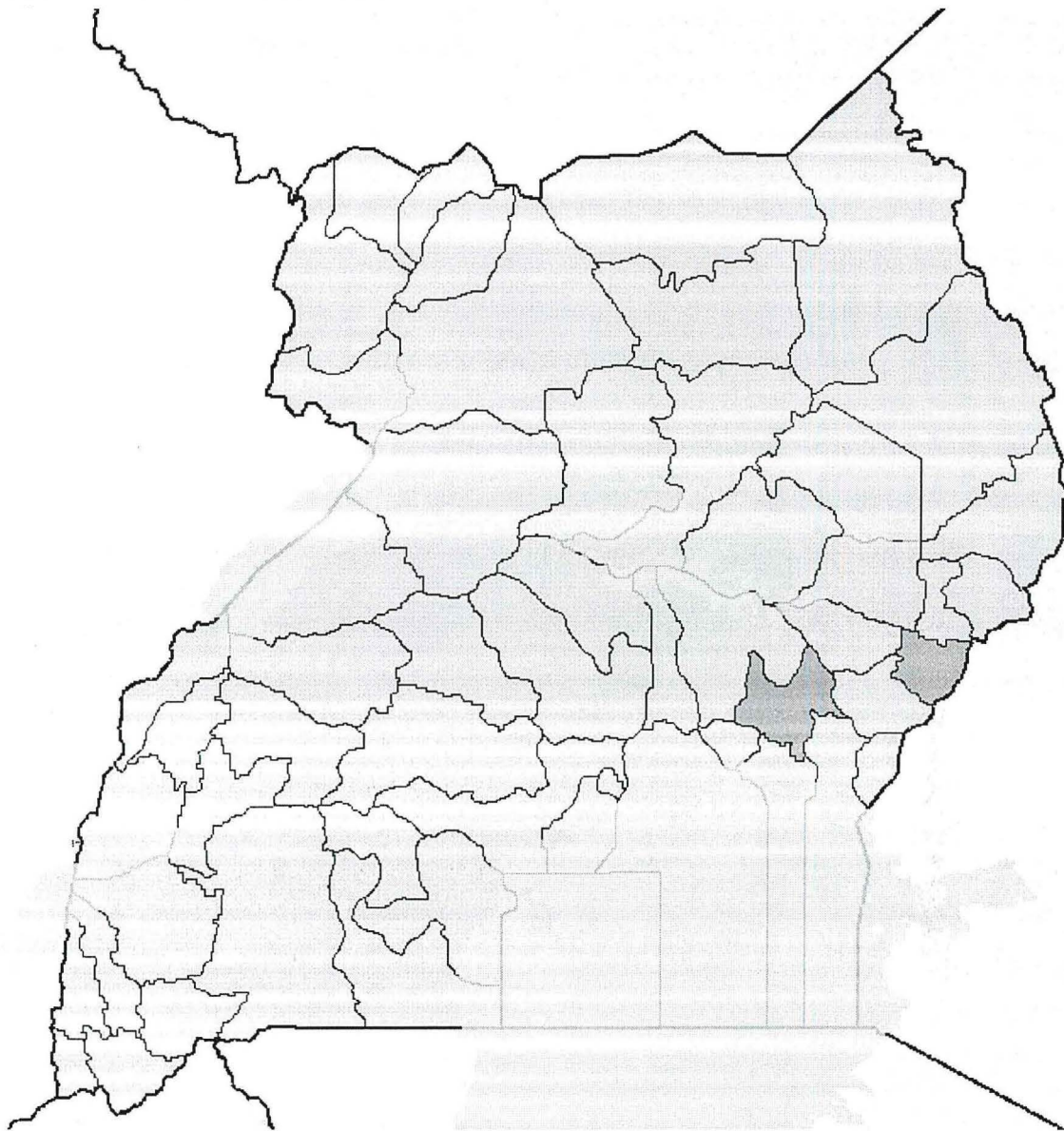
Remuneration

14. How are you rewarded in this institution for best performance?
.....

APPENDIX VI: OBSERVATION GUIDE

- 1 Are all the recommended aspects of vocational didactics represented on the institutions' timetable?
2. What kind of special devices are being used? Are they automated and well maintained?
3. Adequacy of special devices and suitability.
4. How students learn.
5. How teachers interact and motivate learners during teaching/learning.
7. The subjects taught to learners with visual impairment?

APPENDIX V: MAP OF UGANDA SHOWING THE LOCATION OF MBALE AND MUKONO DISTRICTS



KEY

 Mukono

 Mbale

APPENDIX VII: MAP OF MUKONO DISTRICT SHOWING INSTITUTION B



KEY:



INSTITUTION B

Source: internet