SUPPORTING LEARNERS WITH VISUAL IMPAIRMENT TO DEVELOP VOCATIONAL SKILLS

(A Case Study of Six Inclusive Primary Schools in Kumi District)

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Declaration

I Okodel Kokas declare that this dissertation is my original piece of work and has never been presented for any award in any other University.

Signature..... Date.....11/02/2014.....

Approval by the Supervisors

We confirm that the work reported in this dissertation was carried out by the candidate under our supervision as University supervisors.

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Dedication

To my parents Apio Angella and Olupot Daniel (RIP) whose guidance and support has made me reach this far.

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First and foremost I am grateful to the almighty God for my life and health. Sincere thanks go to my sponsors the Norwegian Government for offering me the scholarship through NOMA programme at Kyambogo University. For without you, this kind of work would not be seen.

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Abstract

The purpose of this study was to explore how learners with visual impairment in primary schools are supported to develop vocational skills. Three objectives guided the study: to examine the subject content taught to learners with visual impairment in order to develop vocational skills; to assess the methods used for teaching vocational skills and to explore the factors hindering the teaching of vocational skills to learners with visual impairment. The study used descriptive design. Data were collected from 44 respondents. Document analysis, interviews, focus group discussions and observation were the methods used. Data were analyzed descriptively. The findings revealed that an attempt is made to support learners with visual impairment to develop vocational skills except the subject content taught is inadequate because a few skills in only art and crafts are taught. Findings also indicate that teacher centered-methods are commonly used for teaching vocational skills and the teaching is hindered by lack of assessment, inadequate resources and negative attitudes towards skills training. The conclusion drawn is that although an attempt is made to support learners with visual impairment develop vocational skills, this is not sufficient for them to achieve this goal. Among the recommendations made were; NCDC should collaborate with SNE teachers and revise the curriculum in order to broaden the subject content that might enable learners with visual impairment to develop vocational skills. There is need to conduct refresher courses for teachers on the methods of teaching vocational skills to learners with visual impairment in primary schools. Furthermore, UNEB should collaborate with UBTEB and initiate national procedure for assessing vocational skills in primary schools.

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CHAPTER ONE

INTRODUCTION

1.1 Overview

The aim of this study was to explore how learners with visual impairment (VI) who are in primary schools in Kumi district are supported to develop vocational skills. This chapter presents the background to the study, motivation for the study, statement of the research problem and the purpose of the study. The chapter also includes objectives of the study, research questions, the study scope, significance of the study, the conceptual frame work of the study and definition of the operational key words used in the study.

1.1.1 Background to the Study

This is presented in two sub - sections; motivation for the study and the background of the study.

1.1.2 Motivation for the Study

I am a qualified Special Needs Education (SNE) teacher in one of the primary schools in Kumi district. The motivation for this study is based on my experience as a teacher for over ten years. During this period, I realized that some learners with VI usually complete or dropout of primary schools with inadequate vocational skills yet the teaching of these skills in primary schools are emphasized. The emphasis is intended to support learners to develop vocational skills for survival in the community. One of the objectives of research in Masters in Vocational Pedagogy (MVP) is to enable students carry out action based research in their area of specialization. This is because the MVP students' research findings are expected to help alleviate the problems in their work places and improve on vocational education and training.

1.1.3 Background of the Study

According to the Uganda Population and Housing Census (2002), the national disability prevalence rate stands at 4% representing 844,841 people. Of this population, children with disabilities aged 5-17 years in Eastern region, Kumi district inclusive, are 53,009 and those with visual impairment constitute 7,903 (UBOS, 2006). Kumi district which has a growing population of 360,000 has a total population of 3,062 children with disabilities who include those with VI enrolled in inclusive schools (UBOS, 2006; 2009).

Traditionally, in many cultures around the world, children with disabilities who include those with VI were totally discriminated from society (Otieno, 2009). According to Switzer (2003), children with disabilities were regarded as "in-valid", inferior and in need of special protection and thus not able to benefit from education. In response to this prejudice, UNESCO (1994) advocated that all governments and organizations should support the education of children with disabilities in inclusive schools where their needs should be addressed through child centered pedagogy. This child centered pedagogy relates to the principle of vocational pedagogy where a learner is expected to acquire skills practically through the work of the mind, heart and the hand (Mjelde, 2006). This principle is consistent with UNESCO's (1994) advocacy on skills training which states:

> Young people with special educational needs should be helped to make an effective transition from school to adult working life. Schools should assist them to become economically active and provide them with the skills needed in everyday life, offering training in skills which respond to the social and communication demands and expectations of adult life (p.34).

The need to support learners with VI to develop vocational skills at primary school level is, therefore, significant in that it may provide a foundation for their future survival as adults. According to UNEVOC (2006), skills development leading to Technical Vocational Education and Training (TVET) and the world of work should be integral in education at all levels. This implies that learners with VI should be supported to develop a good foundation of vocational skills at lower education levels as a tool for life, so that in case they dropout from school, they should already have acquired vocational skills relevant for daily survival.

In Uganda, numerous efforts to provide vocational education to learners with disabilities have been in place since the colonial era (Okech, 2011). According to Okech (2011), before the colonial era, children with disabilities who include those with VI had limited attention from the society because they were associated with bad omen in families. During the colonial government, Sir Andrew Cohen the then Governor of Uganda initiated basic education and vocational training for learners with VI in1952 (Okech, 2011). Consequently, Madera school for the Blind in Soroti district and Kireka Rehabilitation Centre in Kampala were established with the aim of supporting the education of children with VI in 1955 and 1960 respectively (Okech, 2011). Sir Andrew Cohen's initiative was consistent with the recommendations of the colonial government to teach vocational skills to 'average' learners incapable of coping with academic subjects through apprenticeships, special instructional workshops, technical schools and primary schools (Ssekamwa, 1997). According to Ssekamwa (1997), village crafts were to be taught to support learners in primary schools to develop vocational skills for producing simple domestic items like mats, embroidery, baskets, stools and ropes. Acquisition of skills of this nature by primary school pupils was encouraged because many pupils did not go beyond the primary school level of education. Vocational skills were therefore, expected to enable primary school

dropouts or leavers to produce various items for sale in order to support themselves economically.

In spite of this effort by the colonial government to support the teaching of vocational skills to learners in primary schools, some primary school leavers, including those with VI did not acquire the expected vocational skills for survival in the society (Ssekamwa, 1997). Consequently, some of them remained beggars and excluded from most vocational related productive activities in the society.

As one of the practical steps to provide quality education to all children of school going age, the Government White Paper (1992) recommended vocationalization of primary school education. This was consistent with Article 30 of the 1995 constitution which states: *'Every person has a right to education'* (p.29) which led to the initiation of Universal Primary Education (UPE) in 1997. The UPE initiative has led to the increased enrollment in primary schools from around 3 million pupils in 1997 to about 8.4 million in 2010 (UBOS, 2012). The increased enrolment includes learners with disabilities who are supposed to attain education with their able bodied counterparts using the same primary school curriculum. These include children with visual impairment.

Further more in the UPE context, the government of Uganda adopted inclusive education as advocated by UNESCO (1994). Inclusive education is a form of education that addresses and responds to the diverse needs of all learners through increased participation in the education system (Okwaput, 2013). The fundamental principle of inclusive education is to enable all children to learn together, wherever possible, regardless of any difficulties or differences through the use of appropriate curricular, organizational arrangements, teaching methods and resources (UNESCO, 1994).

Consequently, the thematic curriculum which was developed in consistence with Business, Technical Vocational Education and Training (BTVET) Act of 2008 promotes vocational education at various levels according to the established vocational standards. This is achieved through modular training, individual learning as well as assessment and certification (BTVET Act, 2008).

The thematic curriculum is expected to enhance the teaching of vocational skills as one of the ways of achieving the Millennium Development Goals (MDGs) by 2015. Through the MDGs, all learners including those with disabilities are supposed to complete a full course of primary schooling and acquire vocational skills for survival in the society. However, the move to achieve this goal appears to be hindered by some factors. Consequently, some learners with disabilities including those with VI dropout or complete primary school cycle with insufficient vocational skills (UN Convention on the Rights of Persons with disabilities, 2010)

An evaluation report by KOIS Development Consultants (2010) on the implementation of Comprehensive Eye Services project for children with VI by Sight Savers International (SSI) in ten districts of Uganda[1], indicates that much as there is a marked effort of access to education by children with VI, some still live under poverty in their families and lack vocational skills that they would apply in society. Kumi district is one of the districts included in the evaluation. In one of the interactions held with the coordinator Kumi District Union of Persons with Disability (P.Aisu, personal communication, August, 1, 2013), it was noted that learners with disabilities who complete or dropout of primary schools do not possess vocational skills for supporting themselves. They are subjected to home chores like looking after the cattle and baby-sitting. In addition, some of them provide labour in the society with little or no pay.

[1] Soroti, Katakwi, Kaberamaido, Kumi, Amuria, Bukedea, Hoima, Masindi, Kibaale and Buliisa from 2007-2009

The above trend implies that the growing population of children with VI in Kumi district may remain dependent on parents, society and the country for survival because they are not empowered with vocational skills to help them create their own jobs (UNAB, 2010). This, therefore, justifies the need to explore how learners with VI in primary schools are supported to develop vocational skills.

1.2 Statement of the Research Problem

In spite of the fact that the teaching of vocational skills to learners with visual impairment is advocated internationally (UNESCO, 1994), the teaching of these skills at primary school level of education is not adequately done (Lockheed & Verspoor, 1994). Although in Uganda, the Government supports the teaching of vocational skills in primary schools, some learners with visual impairment do not develop vocational skills. In Kumi district, some learners with visual impairment who either complete or dropout of primary schools have remained a liability to parents and the society (UNAB, 2010). This means that unless these learners are supported to develop vocational skills in primary schools, they may continue to be dependent on other people instead of being economically active and able to support themselves and their families. The study therefore, sought to explore how learners with visual impairment are supported to develop vocational skills in Kumi district primary schools.

1.3 Purpose of the Study

The purpose of the study was to explore how learners with visual impairment in primary schools are supported to develop vocational skills.

1.4 Objectives of the Study

The following objectives guided the study;

i. To examine the subject content taught to learners with visual impairment in primary schools in order to develop vocational skills.

ii. To assess the methods used in teaching vocational skills to learners with visual impairment in primary schools.

iii. To explore the factors hindering the teaching of vocational skills to learners with visual impairment in primary schools.

1.5 Research Questions

i. What subject content is taught to learners with visual impairment in primary schools in order to develop vocational skills?

ii. What methods are used in teaching vocational skills to learners with visual impairment in primary schools?

iii. What are the factors that hinder the teaching of vocational skills to learners with visual impairment in primary schools?

1.6 Scope of the Study

This study involved the content, geographical and time scope.

1.6.1 Content Scope of the Study

Although there are other classroom based factors that should be considered in order for learners with VI to develop vocational skills, the study only examined the subject content taught to learners with VI in primary schools in order to develop vocational skills, involved assessment of the methods used in teaching vocational skills and it explored the factors hindering the teaching of vocational skills to learners with VI in primary schools. These aspects of the curriculum were

considered because they were thought to be the key in supporting learners with VI to develop vocational skills at primary school level.

1.6.2 Geographical Scope of the Study

This study was carried out in Kumi district. It covered six inclusive primary schools in Kumi-sub- County.

1.6.3 Time Scope of the Study

The study took an account of the situation from 1992 up to March 2013. This is a time when the Uganda Government White Paper on Education (1992) endorsed the teaching of vocational skills to learners in primary schools.

1.7 Significance of the Study

The findings from this study may be useful in that they may;

i. Reveal both strengths and weaknesses pertaining to how learners with VI are supported to develop vocational skills in primary schools.
ii. Influence policy makers to support learners with VI to develop vocational skills in primary schools.
iii. Simulate further research on how to support vocational education and training for learners with visual impairment in primary schools.
iv. Act as a stepping stone towards my academic work and publications in the field of Technical Vocational Education and Training.

1.8 Conceptual Frame Work of the Study

The conceptual frame work of the study presents the relationship between the learning input necessary for learners with VI to develop vocational skills and the learning outcomes. It also shows factors that may hinder these learners from developing vocational skills in primary schools.

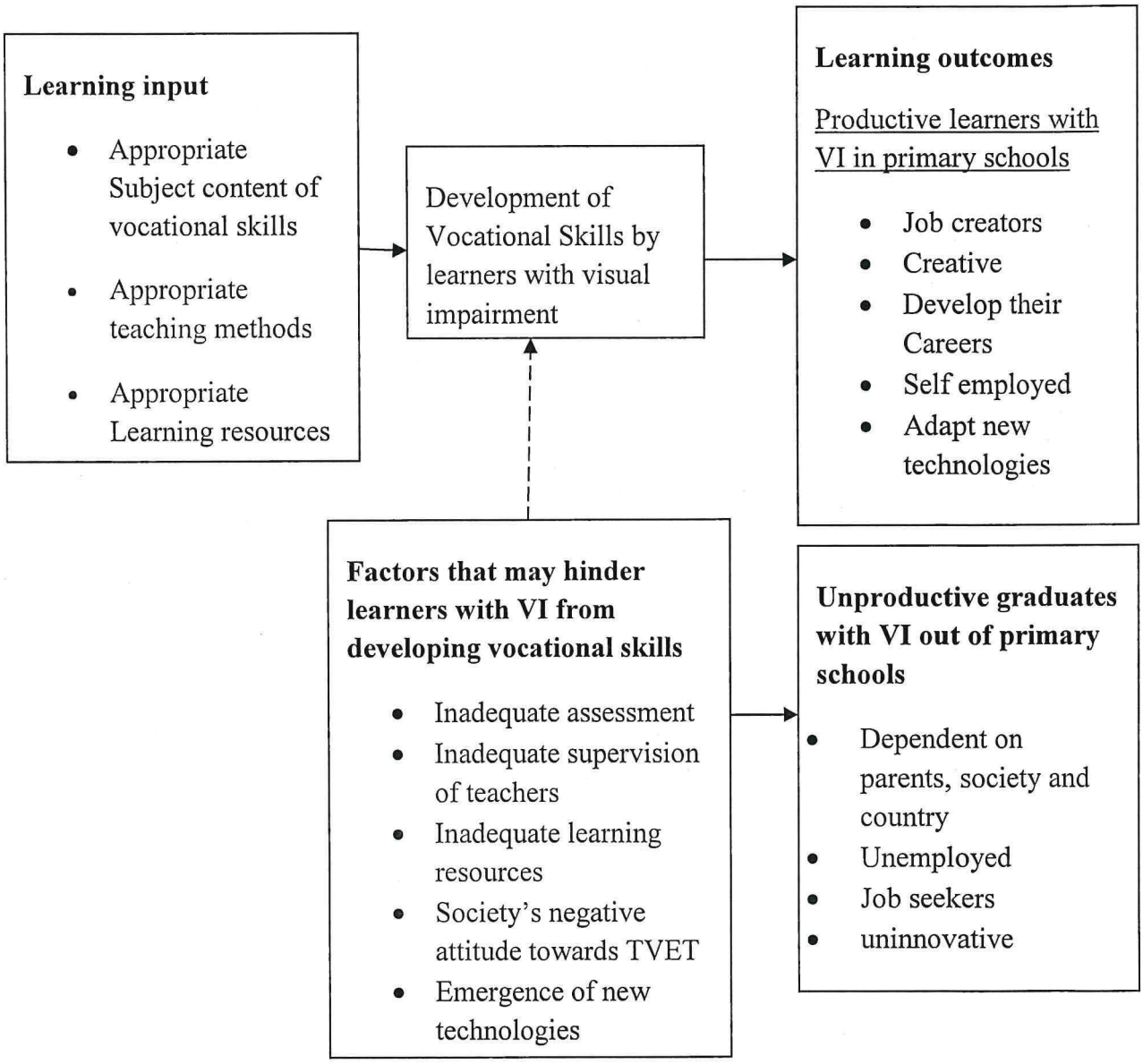


Figure 1: Conceptual frame work on how learners with VI are supported to develop vocational skills. Source: self-formulated.

1.8.1 Explanation of the Conceptual Frame Work of the Study

The conceptual frame work of the study, shown in Figure 1 reveals that the learning input like appropriate subject content of vocational skills, teaching methods, and learning resources may positively influence learners with VI in primary schools to develop vocational skills. The vocational skills acquired may enable learners with VI to develop their careers, be creative, self-employed and adapt new technologies in the society. Figure 1 also shows that the development of vocational skills for learners with VI in primary schools may be hindered by some factors such as inadequate assessment, inadequate supervision of teachers, inadequate learning resources, society's negative attitude towards TVET and emergence of new technologies. These factors may lead to unproductive graduates who may end up being unemployed, job seekers, uninnovative in the world of work as well as being dependent on their parents, society and the entire nation.

1.9 Definitions of Key Words

The following key words used in this study are not relatively new in the field of education. However, I have used them based on the context of the study despite their meanings in other contexts.

Supporting: refers to the help given to learners with VI in primary schools in order to enable them develop vocational skills.

Learners with visual impairment: these are children enrolled in primary schools whose vision loss constitutes a significant limitation for them to perform tasks that require sight. They are in two categories; learners with low vision and learners who are blind. The former refers to learners who have some residual vision that might enable them to read ordinary print with or without

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

The review of the literature was done according to the objectives of the study which are; to examine the subject content of vocational skills taught to learners with visual impairment (VI) in primary schools, assess methods used for teaching vocational skills to learners with VI and to explore factors hindering the teaching of vocational skills to learners with VI in primary schools.

2.1.1 The Concept of Vocational Skills

According to Boissiere (2004) in the US, vocational skills are those skills which allow a learner to master a particular subject or procedure applicable to his/ her career. Vocational skills include; artwork, knitting, weaving, tailoring, cookery and carpentry among others. Boissiere (2004), states that vocational skills should be developed in learners with VI during the early stages of schooling in order to enable them develop career choices. Best (1992) states that failure to support learners with VI to develop vocational skills during the early stages of schooling may hinder their vocational careers as well as adoption of new technologies in the globalizing world. Dewey (2002) points out that the purpose of primary schools is to help individual learners including those with VI to develop vocational skills that they can use to support themselves in the society. Dewey's view is based on the activity and constructive theories of learning by Vygotsky (1978) and Piaget (1983) which underpins this study. Activity and constructive theorists hold the notion that children are little "scientists" whose potentials can be developed during early years of schooling by skilled and competent individuals through practical activities in the environment (Simatwa, 2010; Atherton, 2011).

2.2 Subject Content Taught to Learners with Visual Impairment

According to Azubuike (2011) in Nigeria, subject content taught refers to the actual subject matter that is presented to learners. The subject content is usually drawn from the official curriculum that government through the Education Ministry has set to be implemented in schools. In the context of vocational training, Clement (2005) in Germany defines subject content taught as the tasks to be learned and may vary according to the learners' abilities and educational levels but aims at addressing the needs of all the people in the community. Clement's definition is consistent with Boissiere (2004), in the US who suggests that the subject content of vocational skills taught to learners at primary school level of education should be appropraite to their needs. This is to prepare them to make good career choices. In the following paragraphs the specific subject content that may be taught to learners with VI to develop vocational skills is reviewed.

American Foundation for the Blind ([AFB], 2013) identifies Orientation and Mobility (O&M) as one of the subject content taught in the primary school curriculum to support learners with VI in developing vocational skills. According to AFB (2013), O&M helps the learners with VI to interact independently in their learning environment as well as in their society to get the materials to use. Similarly, Virginia Department of Education (2010) asserts that O&M skills enable learners who are visually impaired to attain systematic orientation and self movement in schools, home and community environments. The subject content of O&M which include sighted guide skills, protective techniques, cane instruction and street crossings may contribute to the development in social, mental and physical skills and the general well being of learners (Carney, Engbretson, Scammell, & Sheppard, 2003). This implies that inclusion of the subject content of O&M in the primary school curriculum may support learners with VI to

develop mobility skills. The mobility skills may enable them to move freely and have access to learning materials in the environment which may enable them develop vocational skills.

In Canada, independent living skills is another subject content taught to learners with VI in primary schools in order to develop vocational skills (Hatlen 1990, cited in Lechelt and Hall, n.d.). Hatlen (1990), stresses that independent living skills improve personal hygiene of learners with visual impairment. In addition, learners are expected to develop money management, food preparation and time management skills. Hatlen (1990), however, notes that some learners with VI often graduate with good academic skills but are unable to support themselves and yet if they had had vocational training in daily living skills they would. In Uganda, a study conducted by Ministry of Education and Sports ([MoES], 2011) on the extent to which learners had developed independent life skills in primary schools is consistent with Halten's (1990) observation. Gamble (2006), in Norway when writing about the kind of knowledge that links school to the world of work notes that the development of independent life skills in learners should be emphasised in the vocational curriculum. This is to support the learners to develop vocational skills and competencies for the world of work.

In Ghana, a study on vocational careers by Mensah, Ameyaw and Dennis (2007) points out that the subject content taught to learners with VI in order to develop vocational skills in primary schools is what teachers find simple to teach. The common subject content taught in the curriculum is not limited to craft work like making baskets, ropes and weaving but it also includes carpentry, hairdressing, simple car mechanics, shining shoes, and tailoring. This observation is similar to the study in the US by Mann (2006) which revealed that learners with VI develop vocational skills through the curriculum of various skills like recreation and leisure, blacksmithing, bakery, sewing and mechanics. However, Curry and Hatlen (2012), in the US

argue that vocational skills like mechanics, bakery and blacksmithing for some learners with VI require learners to be grown- up in order to promote adequate mastery of vocational skills.

According to the Hungarian Institute for Educational Research and Development ([HIERD], 2013) in order to cope with new technologies, computer skills are among the vocational skills included in the curriculum for all learners including those with VI in primary schools. The teaching is meant to prepare learners for the informed society at an early age as possible. This advancement is consistent with the study of ICT in primary education conducted in Moscow by UNESCO (2011) which indicates that the teaching of the subject content of ICT in primary schools to all learners has taken root. This was achieved because the learning environment in primary schools supports innovation and adaptation of new technologies for all learners (UNESCO, 2011). Despite developments in the teaching of ICT in primary schools in other countries, in Uganda, a survey on ICT and education in Africa indicates that there is little progress towards the integration of ICT in the primary school curriculum (Farrell, 2007). This means that learners with VI at primary school level may not develop ICT as a vocational skill in this 21st century unless much emphasis is accorded in adapting the new technologies.

In the US, the study on home economics by Smith and Zwart (2010), indicates that the subject content taught in primary schools include aspects of food, nutrition and health, food science and hospitality, household management, textiles and clothing. These are aimed at building optimal and sustainable living for individual learners, families and communities. In Canada Maule (2012) notes that home economics has been part of the primary school curriculum for long and the subject content taught to learners with VI range from cooking food, needlework, cleaning, and home management.

Pavalkis (2009) in Lithuania states that entrepreneurship skills is one of the subject content taught in the primary school curriculum in order to support learners with VI in developing vocational skills. According to Pavalkis (2009), entrepreneurship skills make learners with VI to develop business skills, financial management skills, analytical skills as well as self-confidence. The combination of entrepreneurship and academic skills is expected to make learners productive members of the society and also aligns the education system to the demands of the country's job market. .

According to Auxiliadora and Figueiredo (2008) empirical studies related to entrepreneurship education within primary schools, especially in the least developed locations in developing countries like South America indicates that the teaching of entrepreneurship skills is largely missing in primary schools and the students lack skills for job creation. The empirical studies cited by Auxiliadora and Figueiredo (2008) are consistent with Paton (2009) who observed that in UK the teaching of the subject content of vocations like hairdressing, cake preparation, construction as well as entrepreneurship is inadequately done in primary schools. Teachers' effort is much more seen in academic subjects than vocational subjects. The low development of vocational skills among learners with VI in Kumi district primary schools may be due to inadequate support in the teaching. The subject content taught and the methods used for teaching should equip learners with creative skills that may enable them sustain their lives in the society.

2.3 Methods for Teaching Vocational Skills

The development of vocational skills among learners with VI in Technical Vocational Education and Training (TVET) depends on the methods used for teaching. There are two main categories of methods that may be used; teacher- centered and child - centered. Teachers who rely on

teacher-centered methods which hardly involve learners in the activity may hinder the acquisition of vocational skills among learners while teachers who rely on child-centered methods where learners are involved in practical activities may lead learners to develop vocational skills (Mjelde, 2006).

Chauhan (1994) in India notes that Individualized Educational Plans (IEP) are some of the core methods of teaching vocational skills to learners with disabilities, the VI inclusive. Chauhan (1994), states that IEP minimize the use of teacher-centered methods like demonstration, explanation and question and answer. Chauhan (1994) further states that, the teacher- centred methods hardly make provisions for individual differences and collaborative planning with parents, specialists and other educators. American Foundation for the Blind (2013) states that in order to enable children with VI get involved and progress in the general education curriculum, the use of IEP is essential. In Uganda, a study conducted by Igune (2009) on inclusion of Blind children in primary schools in Moroto district indicates that the use of IEP in teaching learners with VI is not common. He believes that due to this, most learners have not acquired vocational skills for leading a good quality life in society.

In the UK, Stack (2008) states that project method is one of the methods used for teaching vocational skills like craft work and cookery to learners with disabilities in primary schools. This is because project method is expected to help teachers to adapt to and address the needs of learners with disabilities through practical work over a period of several days or weeks. Project method may involve designing articles, knitting or publishing a class newspaper. The projects may be suggested by the teacher or by learners themselves. According to Stack (2008), Project work focuses on developing, vocational skills among learners in order to foster independent thinking, self-confidence, and social responsibility. Faraday, Overton and Cooper

(2011) in the UK also state that project method provides ample time to learners with disabilities to develop vocational skills from school. Dymond, Renzaglia and Chun (2008) as well state that in the US, project work is used as a basis for teaching vocational skills to learners with disabilities because it offers hands-on or problem-based learning that is focused on meeting community needs and enhancing school-community collaboration. Project method, therefore, offers a departure from traditional pedagogy (methods) by linking academic content to vocational goals addressed in the classroom setting. This may in turn increase the community's perception about learners with disabilities who contribute to the development of society. However, in Taiwan, Chen (2012) states that project method is only applicable for teaching learners with VI vocational skills when they are taught orientation and mobility skills.

In Turkey, the common method used for teaching vocational skills in primary schools is group work (Gödek, 2004). According to Gödek (2004), the purpose of group work is to promote child-centered learning where learners work together for a common goal through sharing tools and materials as well as ideas. Gödek, however, observes that some teachers do not organize functional groups for children by giving them the same task to work on; instead children are sat in groups but engaged in different activities. Research carried by Blatchford, Galton and Kutnick (2005) in London reveals that poor organization of group work hinders learners from acquiring basic vocational skills. This implies that in order for group work to be effective, teachers should adapt good grouping practices based on the category of learners and the task to be accomplished.

Holbrook (1996) in London states that experiential learning is used for teaching learners with VI vocational skills in primary schools. Experiential learning enables learners with VI to learn by doing using appropriate tools and materials. This is because these learners have limitations of sight. Using their experience may therefore, help them in building an

understanding of what is being taught through tactile exploration. In line with Holbrook (1996), Hatlen (2000) in US states that learners with VI are supported to learn what is presented in the vocational curriculum through experiential learning. According to Hatlen (2000) teachers who are skilled in the teaching of vocational skills to learners with VI use experiential learning because they understand the curriculum modifications that are necessary for them. Although experiential learning is essential for teaching vocational skills to learners with VI, Klein (2009) in America argues that learners with severe VI can encounter significant obstacles when learning some vocational skills that they do not have prior experience. This may affect the acquisition of the vocational skills.

In spite of the various teaching methods that may be used in teaching vocational skills to learners with VI, some studies indicate that some of the methods may not be effective. In Nigeria, Idris (2012) points out that demonstration method, lecture method and discussion method which were used for teaching vocational skills to learners in primary schools did not support them in acquiring vocational skills as compared to project based, computer based and field trip methods. Idris's view (2012) is consistent with Aggarwal (1998) in India who notes that most teachers are accustomed to traditional (teacher-centered) methods like demonstration, question and answer which are not mainly practical because they were taught and trained that way. In the UK Neary (2002) notes that where good methods are lacking, learners will not grasp the content hence the aims and objectives of the course will not be achieved. Nilsson (1998, cited in Mjelde, 2006) is consistent with Neary (2002) and states that learners should be taught vocational skills using appropriate methods. He further notes that those in the teaching positions should be able to use the methods that expose learners to the elements of vocational education. These elements include vocational practice, theory and general knowledge. Vocational practice

concerns the techniques of teaching practical work while vocational theory provides knowledge about the use and application of tools and materials in the practice. General knowledge calls for the integration of learners' experiences from other subjects such as mathematics and languages into vocational education.

2.4 Factors that may hinder the Teaching of Vocational Skills

The process of supporting learners with VI in primary schools to develop vocational skills is quite demanding. A number of factors may hinder this process.

In Kenya, a study conducted by Daniel (2011) on the state of pre-vocational skills education in the primary school curriculum reveals that this process may be hampered by lack of basic teaching facilities and resources. These facilities include workshops for practical work as well as tools and materials. A related factor was revealed in Uganda by Okinyal, (2006, cited in Okello, 2012) who states:

> BTVET institutions lack instructional materials and infrastructure like lecture rooms, teachers' houses, workshops, tools, equipment, books and libraries. Yet BTVET is practically oriented and its success is dependent on the availability of teaching materials, tools, machines and equipment. If these are grossly lacking in the institutions, the products from them will not have the competence directly required in the labour market (p.17).

The views of these authors are consistent with the findings of the study conducted in Norway by Mjelde (2006) on vocational education. Mjelde (2006) observes that the development of any school-based TVET should be in the workshops or classrooms. According to Mjelde (2006), this is where general subjects are taught alongside with practical subjects. Mjelde (2006) further

states that workshop learning can be in the kitchen, weaving floor or garage in which learning is through activity and collaboration. Her view is that learning is by trying and failing through action.

In consistence with Mjelde (2006), Tobiassen (2002) points out that the development of vocational skills for learners is usually facilitated by the availability of resources like tools and materials, infrastructure, money, space, teachers' competencies, pupils' curriculum and time. Tobiassen (2002) adds that inadequate resources may affect the delivery of the subject content especially when the emphasis is put on practical learning. For example, in the teaching of vocational skills where hands - on experience is essential, the use of adequate resources motivates learners and makes the teachers' role of content delivery easier.

A study conducted in the US by Lucas, et al (2012) indicates that the process of supporting learners with VI to develop vocational skills requires adequate resources including time. This is because the provision of adequate time allows practice on real-world activities. Lucas et al (2012), further state that adequate resources provide an opportunity for teaching in the context of practical problem-solving approach through which learners use their experiences and feedback availed on spot. The above studies imply that adequate resources are necessary in order to support learners with VI to develop vocational skills.

In the US, a study conducted by Robert and Beadles, (2006) on the Statewide services for students who are visually impaired, indicates that lack of sufficient numbers of skilled qualified teachers hinders the process of supporting learners with VI to develop vocational skills. A similar factor was identified in Nigeria by Uwaifo and Uwaifo (2009) as a setback in vocational education and training. They pointed out that in most African countries, most teachers

have poor training background on vocational education and hence do not have appropriate skills for teaching learners. Worse still most of the teachers have not had chances for re-training in order to keep abreast with the ever-dynamic technological innovations associated with vocational training. Uwaifo and Uwaifo (2009), add that sometimes teachers are forced to teach what they do not know how to teach. However, in Finland a study conducted by Uljens (2005) on vocational education found that teachers should not be conditioned to teach what they are not trained on because they may fail to make choice of the subject content in relation to the needs of the learners. As a result, the teaching of vocational skills to learners with VI may be retarded.

Additionally, a study on career changers in teaching jobs by Hof, Strupler and Wolter (2011) found out that in the framework of Swiss vocational education system, teachers of vocational subjects are mandated to have prior career knowledge in what they are expected to teach in order to promote good skills development among learners.

The above studies, therefore, imply that lack of skilled teachers is a significant factor hindering the process of supporting learners with VI to develop vocational skills in primary schools. In Mexico, a study conducted by Waters (2008), indicates that skilled teachers can have the ability to understand learners' experiences and be able to identify appropriate methods of teaching the subject content to learners. Waters (2008) is consistent with the study on training and development conducted by Roth Well and Kolb (1999) in the United States. They found out that any form of vocational training requires well skilled teachers/ instructors. They added that well trained teachers/ instructors enable learners to develop vocational skills that are in line with the new technologies.

In Nigeria, a study by Azubuike (2011) on influential factors affecting vocational education reveals that the teaching of vocational skills to learners with VI in primary schools is affected by negative attitudes of teachers, parents and entire society. According to Azubuike (2011), some teachers expect vocational skills to be taught to the children who are out of school. Similarly, in Canada, a study by Pivik, Mccomas and Laflamme (2002) on barriers in inclusive education indicates that the teaching of vocational skills to learners with VI in primary schools is hindered by negative attitudes by the general public, teachers and learners themselves. They add that some learners with disabilities are normally isolated from school programmes as a consequence some of them have lacked interest in studying vocational skills. In Uganda this negative attitude has resulted in low enrolment at all levels of TVET as Okinyal (2006, cited in Okello, 2012) states:

> The stigma and the negative attitude attached to BTVET courses hinder the sub-sector from getting good learners. Whereas most BTVET subjects are science related, students who pass sciences do not easily opt for BTVET and so the sub-sector continues to admit low grade students into its institutions. As a result of the negative attitude, enrolment of students is still relatively low in BTVET institutions (p.186).

The citation by Okinyal (2006) is consistent with Bray and Packer (1993) in US who observe that addressing special needs for learners with disabilities in small states is very difficult. This is because it is not easy to find people at school with both the skill and attitudes needed for work with these learners despite the existence of a few who might be trained to support them.

A study by Barnett and Ryan (2005) in Australia on vocational education and training indicates that vocational skills in primary schools are inadequately assessed and this has affected accreditation of learners. Dawkins (2013) in Australia also reports that there is inconsistency in

the quality of teaching and assessment of vocational skills in the schools. According to Dawkins (2013), this undermines the integrity and value of vocational qualifications in the country. He further notes that ensuring consistency in teaching and assessment of vocational skills enables learners to be supported in developing the vocational skills. In Uganda, the Government White Paper (1992), reports that the education system is dominated by examinations at all stages with inadequate provision for national assessment on practical skills. The teaching in primary schools focuses on the achievement of good marks in examinable subjects at the expense of vocational subjects in which learners would develop vocational skills. This report is consistent with Lockheed and Verspoor (1994) who note that in many African countries, vocational training at primary school level is not commonly done. This is because primary education systems focus on development of basic skills like reading and writing.

In London, Cairns and Malloch (2011) state that the teaching of vocational skills to learners at lower levels of education is affected by the emergence of new technologies. They add that new technologies like computer skills application, modern ways of making items like mats, chairs, ropes have shunned the use of traditional knowledge where the young children would learn more on how to do things locally. This view is in line with Johnson, (2001) who points out that across the world, the introduction of new technologies from foreign cultures has affected the life of the indigenous people. In some cases, the new technologies have been adopted and adapted to the daily life without understanding their effects. In other cases, new technologies have completely changed self-identities and lifestyles. The new technologies are being introduced to indigenous societies at an accelerated speed and this has created some negative consequences in the promotion of traditional skills and ways of living among the growing generation.

2.5 Summary

Based on the literature reviewed, the subject content of vocational skills taught to learners with VI in primary schools is not uniform across countries. In other countries, there are more vocational skills taught as compared to Uganda. I have also noticed that not all the subject content taught is relevant to learners with VI. Literature also reveals that although some countries use learner- centered methods for teaching vocational skills, some of them are not adapted to suit the needs of the learners with VI. Literature further reveals that there are hindrances to the teaching of vocational skills to learners with VI in primary schools. This underscores the need to support learners with visual impairment to develop vocational skills in primary schools. In the chapter that follows, the research methodology is presented.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

This chapter presents the research design, study area, study population, sampling techniques, sample size, data collection methods and instruments. The chapter also explains data collection procedure, data quality control, data processing and analysis, research ethical considerations and study limitations.

3.2 Research Design

A research design is a plan that guides one in carrying out the study from the beginning to the end (Yin, 2003). In this study, I used a descriptive research design with qualitative methods of data collection and analysis. This is because the study sought to find out people's opinions on how learners with VI are supported to develop vocational skills in primary schools. The use of descriptive research design is supported by Odiya (2009), who states that the design is used to get information on the current status of phenomena by describing what is in existence in respect to conditions or variables that are found in a given situation. Not only getting information on the current status of phenomena but also allowing systematic interpretation and analysis of data collected from the respondents.

3.3 Study Area

This study was carried out in Kumi sub-county, Kumi district. Kumi sub-county is bordered by four sub-counties namely; Atutur sub-county in the South, Ngero sub-county in the West and Ongiino sub-county in the East and Kumi town council in Central (appendix, XI). Kumi district as a whole is bordered by the following districts in different directions; Bukedea in the East, Katakwi in the North, Ngora in the West and Pallisa in the South (appendix, X). The district has

a total of 109 primary schools of which 91 are government aided and 18 are privately owned (USAID, 2013). Kumi sub-county in Kumi District was purposively chosen for this study because it is among the sub-Counties in the district which has children with disabilities with inadequate foundation of vocational skills in primary schools (KOIS Development Consultants, 2010).

3.4 Target Population

Target population refers to the group of individuals expected to participate in the study (Enon, 1998).The target population for this study comprised of learners with VI, classroom teachers and head teachers in inclusive primary schools, the District Inspectors of Schools (DIS) and the Centre Coordinating Tutors (CCTs) in Kumi district. This population was selected to participate in the study because they were expected to have information on how learners with VI are supported to develop vocational skills in primary schools.

Learners with visual impairment:

Sixty four (64) learners with VI were included in the target population. This is because learners with VI are expected to be among the main beneficiaries of the teaching learning process. Additionally the choice of the learners with VI was based on grounds that some of them complete or dropout of primary schools with insufficient vocational skills for survival in the society.

Classroom teachers:

Twenty four (24) classroom teachers were part of the study population because they are obliged to teach all subjects in the curriculum. They were therefore expected to have information about how learners with VI are supported to develop vocational skills in primary schools.

Table 1:

Summary of the sample and the techniques used for selection

Population	Target size	Sample	Techniques for selection
Learners with VI	64	24	Stratification followed by simple random sampling
Class teachers	24	12	Simple random sampling
Head teachers	06	06	Purposive sampling
DIS	01	01	Purposive sampling
CCT	01	01	Purposive sampling
Total	**96**	**44**	

3.6 Data Collection Methods and Instruments

The study used qualitative data collection methods. The choice of the methods was guided by the objectives of the study. Bell (2005), states that methods for data collection should be aligned to the objectives of the study in order to generate information required. I used four methods for data collection; interviews, focus group discussions, observation and document review analysis.

3.6.1 Interviews

An interview is a dialogue with a purpose. Cohen, Manion and Morrison (2000) advocate for the use of interview method for data collection because of its flexibility in gathering much data on the phenomenon.In this study; I used interview method of data collection with the assumption that it would enable me to probe the respondents' views on the phenomenon. Interview method also gave an opportunity for me to modify the questions that were not clear to the respondents (Gall et al, 2007). Furthermore, my choice to use interviews was based on the fact that interviews require simple instruments for data collection (Creswell, 2007). An interview was the key

method for eliciting information from classroom teachers, head teachers, DIS and the CCT on how learners with VI are supported to develop vocational skills in primary schools.

On the other hand, interview method had some disadvantages. For example some respondents were not willing to be interviewed. However, through an in-depth discussion on the phenomenon, they accepted to give information on the questions asked.

In order to obtain data through interview method, I developed unstructured interview guide. The use of unstructured interview guide is recommended by Rule and John (2011) for its flexibility in generating more data for the researcher. In this study, unstructured interview guide was used because it helped in generating more information. In addition, unstructured interview guide allowed deeper analysis of the problem with the respondents. Interview guide generated information on all the three objectives.

3.6.2 Focus Group Discussion

The purpose of focus group discussion in data collection is to elicit information about a particular topic by interviewing a group of people directly affected by the issue (Creswell, 2007). Focus group discussion helped me in gathering information about the phenomenon. It elicited various views from learners with VI on how they are supported to develop vocational skills in primary schools. However, focus group discussion had some limitations. One of them is that, some participants dominated the discussion but an attempt was made to encourage all the participants to respond to the questions. A focus group discussion guide was used to obtain data from learners with VI. According to Ellison (2010), focus group discussion guide enables researchers to gather qualitative data about people's experiences, ideas and understandings on the topic under discussion. Focus group discussion guide generated information on the three objectives.

3.6.3 Observation

Enon (1998) describes observation method as a way of obtaining data in real situations without bias. In this study, I used non-participant observation. Specifically, I observed the classroom organization, learners' interaction and tools and materials used in the teaching of vocational skills. Summary notes were taken and a camera was also used to take some photographs. One of the limitations of this method was that some teachers did not like to be observed as they teach vocational skills because they thought the process would reveal most of their weaknesses. Nonetheless, I managed to observe two lessons. I used an observation guide for collecting data on the methods used for teaching vocational skills to learners with VI in primary schools.

3.6.4. Document Analysis

Four documents on the curricular used for teaching vocational skills to learners with VI in primary schools were analyzed. The documents analyzed in this study included; MoES (2012) Primary seven curriculum- Set two, MoES (2012) Primary six curriculum- Set two, MoES (2000) Uganda primary school curriculum syllabi for primary schools-Volume two and the school time table. The analysis of documents as a method of data collection is acknowledged by Ellison, (2010) who argues that documents provide direct and large amounts of information. In addition, document analysis helps in triangulating data from other sources. I used document analysis checklist for collecting data on the subject content taught to learners with VI in primary schools in order to develop vocational skills.

3.7 Data Collection Procedure

I obtained an introductory letter from the Faculty of Vocational Studies in Kyambogo University which formally introduced me to the District Education officer Kumi district to conduct research from the selected primary schools. With the permission granted, I visited the sampled schools to

make appointments for data collection. Data was collected from respondents using interview, focus group discussion, observation and document analysis guides on agreed dates. During the process of data collection, I took record of the responses from respondents in the note book.

3.8 Data Quality Control

An attempt to obtain Quality data was made by considering the following:

3.8.1 Validity of the Instruments

Supervisors, mentors and fellow students read the instruments to ascertain whether they were designed to produce findings that answer the objectives. Inappropriate questions were replaced with new ones to ensure consistency.

3.8.2 Reliability of the Instruments

An attempt was made to ensure that the research instruments measure what they were designed for. The instruments were tested before carrying out the main study in two inclusive primary schools in Kumi sub-County. The schools had the same characteristics with the sampled schools but were not among the sample. The results of the test were that, the interview and focus group discussion guides had questions that sought for similar responses. During the main study, I had to eliminate the questions that were repeated to ensure reliability of the instruments.

3.8.2.1 Triangulation

Triangulation is a technique of ensuring data control through the use of mixed methods and the use of a variety of respondents (Amin, 2005, Creswell 2007). In this study, I used multiple methods for data collection. These methods are interviews, focus group discussion, observation and document analysis. Additionally, I also used a variety of respondents that is; learners with VI, classroom teachers, head teachers, DIS and the CCT.

3.9 Data Processing and Analysis

Data collected from interviews, focus group discussions, observations and document analysis guides was processed and analyzed through the following steps;

3.9.1 Data Processing

Data processing involved the following steps;

Organization of field data

The field data also called the raw data was mainly in form of individual opinions and information from documents. I organized the raw data into four categories. The first being data from individual respondents, where individual opinions were collected using an interview method and this I called interview data (ID). The second category of data was from focus group discussions in which the views of the group members were considered. But in some cases, individual views were articulated. However, I called this focus group data (FGD). The third category of data was based on information from documents and this I called document data (DD). The forth group of data was from observations made in the schools and this was referred to as observation data (OD). This organization of field data was to guide me in data transcription before coding.

Data Transcription

Data transcription involved writing detailed notes from raw data according to the objectives of the study and as per the categories of data noted in the organization of field data above. Data transcription also involved quoting words of some respondents verbatim as well as writing notes on the photographs taken based on meaning.

Coding

This process involved attaching labels to the categories of data in relation to the objectives of the study (refer to 1.4). I used the last three letters of the alphabet as codes for the objectives. These

were X for objective one, Y for objective two and Z for objective three. This helped in identifying specific responses for each objective.

3.9. 2 Data Analysis

Data was analyzed qualitatively. It involved sorting and classifying responses according to objectives. The data was analyzed through description of the situation following the themes derived from the objectives of study and it was presented in figures and frequency tables.

3.10 Research Ethical Considerations

Ethical considerations in research are set of values that professionally guide researchers when conducting investigations (Norton, 2009). Norton (2009) further notes that though ethical issues vary from profession to profession, the common ones are honesty, objectivity and confidentiality. In this study, therefore, I guarded against any unethical practices that would arise during and after the study. I got consent from the respondents to take and use some photographs in the study. During data analysis, I attempted to be objective as well as being confidential of the data sources.

3.11 Limitations of the Study

Like any other study, there were unexpected limitations to this study and they included:

i. Some respondents - classroom teachers were not willing to be observed while teaching vocational skills to learners with VI despite prior arrangements and explanation of the intentions of the study. This may have limited data collected for objective two and the findings of the study could have been negatively influenced.

ii. Vocational training at primary school level being relatively the recent effort in Uganda, much research work has not yet been carried out. Literature from secondary sources used was not exhaustive enough on the phenomenon.

iii. Whereas the study could have covered a number of primary schools in Kumi district, in order to get an overall picture of how learners with VI are supported to develop vocational skills, available funds and time were not adequate for conducting the study in the entire district.

CHAPTER FOUR

DATA PRESENTATION AND INTERPRETATION

4.1 Introduction

This chapter presents the findings of the study. The study sought to explore how learners with visual impairment in primary schools are supported to develop vocational skills. The study examined the subject content taught to learners with VI in order to develop vocational skills; assessed methods used for teaching vocational skills to these learners and explored the factors hindering the teaching of vocational skills to learners with VI in primary schools.

4.2 Analysis of Respondents' Demographic Information

This section presents the general information of respondents in the study. Table 2 shows information on respondents' gender.

Table 2:

Gender of the respondents

Gender	Frequency	Percent
Male	29	65.9
Female	15	34.1
Total	**44**	**100.0**

Source: Primary

Findings in Table 2 show that 65.9% of the respondents' were male while 34.1% were female. These findings mean that the two genders were represented in the study sample.

Table 3:

Teachers' teaching experience

Experience	Frequency	Percent
5-10 years	5	25
10 years above	15	75
Total	20	100

Source: Primary

Table 3 indicates that data was obtained from 20 teachers. The results reveal that 75% of the teachers had a teaching experience of 10 years and above while 25% had a teaching experience ranging from 5-10 years. This implies that data was obtained from teachers who were in service as at the implementation of the Government White Paper on Education (1992) and the UPE policy.

Learners with visual impairment

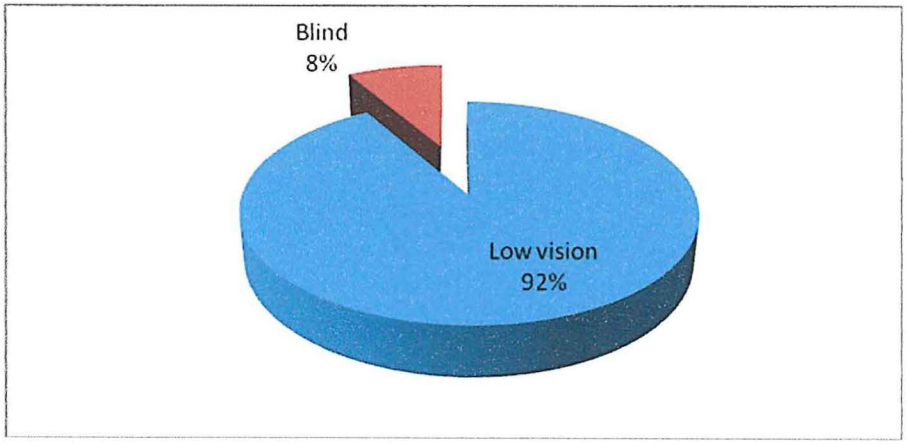


Figure 2: Categories of learners with visual impairment

Source: Primary

Figure 2, shows that out of the total of 24 learners with visual impairment from six schools, (92%) of them had low vision while (8%) were blind. This implies that learners with VI exist in schools and therefore justifying the need for the study.

4.3 Subject Content Taught To Learners with Visual Impairment

The first Objective of the study was to examine the subject content taught to learners with VI in primary schools in order for them to develop vocational skills. The sources of data for this objective were: document analysis, interviews, focus group discussions and observations.

Data from document analysis is presented in Table 4. Data from interviews, focus group discussions and observations is presented in Table 5. The subject content is presented in relation to the subjects under which it is taught.

Table 4:

Subject content of vocational subjects taught according to documents

Vocational subjects	Subject content taught
Art and crafts	Designing articles, decorating articles, rope making, drawing and painting objects.
Entrepreneurship	Carrying out business activities (buying, selling, customer care and advertising).
Home economics	Identification of food requirements and preparing meals.

Source: secondary

Data from Table 4 indicates that the subject content of vocational subjects taught in order to enable learners with VI in primary schools to develop vocational skills is in three subject areas;

Art and craft, entrepreneurship and home economics. However, the subject content taught does not include vocational subjects like technology, orientation and mobility, daily living skills as revealed by literature. This means that learners with VI may not be supported to develop variety of vocational skills at primary school level of education.

Regarding art and crafts, the subject content taught is designing and decorating articles, rope making, drawing and painting objects. Concerning entrepreneurship, the subject content taught includes; carrying out business activities (buying, selling, customer care and advertising). With home economics the subject content taught is identification of food requirements and preparing meals. Although the subjects presented in the documents may be useful for learners with VI, the subject content is very limited in variety. Children with VI should be presented with a variety of subject content from which they can choose their careers.

Table 5:

Subject content taught according to interviews, focus group discussion and observation

Response	**Category of respondents**						
Subject content	Teachers	Head teachers	CCT	DIS	Learners	Totals	Percentage
Rope making	12	06	1	1	10	30	68%
Drawing	08	04	-	-	14	26	59%
Modeling	10	05	-	1	08	24	55%

Data from Table 5 indicates that 30 respondents constituting (68 %) noted that rope making is the subject content taught to learners with VI in primary schools in order to develop vocational skills. Other respondents, 26, representing (59%) and 24, representing (55%) reported drawing

and modeling respectively. Data from respondents did not reveal the subject content of home economics and entrepreneurship taught to learners with VI in order to develop vocational skills. This indicates that the common subject content taught to learners with VI in primary schools in order for them to develop vocational skills is limited to the subject of Art and crafts. Teaching learners with VI only the subject content of Art and crafts may deprive them of the opportunity to develop vocational skills in other subject areas that are necessary for them live a productive life in society.

Regarding rope making, respondents reported that the skills are taught to learners with VI because it involves the use of local materials that learners can easily access in the environment. Explaining on this, one of the teachers said:

"... *we mostly teach our learners rope making and each one of them is exposed to at least making one item out of the local available materials in a term. This is intended to make them acquire creative skills for use in future...*"

Similarly, one of the learners said; "... *every term we do an exam in rope making and every pupil is expected to produce at least one rope which he/she will have made...*"

Making learners to produce one rope in a term implies that the subject content taught to learners with VI in order to develop vocational skills is inadequate. Inadequate subject content taught may not give learners enough practice hence they may not develop appropriate vocational skills for survival in the community.

Concerning drawing, respondents reported that it is taught in order to enable learners with VI to develop skills in using art as a means of expression. One of the teachers had this to say: "...*drawing helps learners with VI to build tactile skills that may be useful in Braille work...*"

One of the learners noted: *"... teachers usually ask us to draw some of the items from the school compound like trees and animals..."* These statements imply that learners with VI through drawing may develop creative thinking and self expression which may promote the development of vocational skills.

On modelling, respondents reported that they were teaching it to learners with VI to help them develop creativity and their fine motor skills. One of the teachers had this to say: *"... we sometimes ask all children to model items out of clay in order to make them more creative in the society as well as develop their fine motor skills..."* This means that learners with VI who are exposed to modelling may have their fine motor skills developed which may promote the development of hands-on activities.

When asked about the appropriateness of the subject content for Art and Crafts that is taught to learners with VI in order to develop vocational skills, 25 out of 44 respondents representing (57%) reported that the subject content is appropriate as one of the teachers said:

"...the subject content is appropriate because it is in line with the national objectives of primary education where learners are expected to acquire basic skills for survival in the community in case of drop out from school..."

One head teacher was consistent with this and said:

> *...Art and crafts as the subject content taught in the curriculum helps learners with visual impairment to develop vocational skills that support them in making ropes, from which they can make their own money for survival and minimize dependency in families...*

One of the learners in a focus group discussion had the following expression:

"... the rope making we are taught in this school is good because some of us get money from it for buying books and soap..."

On the other hand, 19 out of 44 respondents constituting (43%) pointed out that the subject content taught to learners with VI is not appropriate to their needs. Citing drawing and modeling as examples, one of the teachers said:

> *...some learners with visual impairment especially the Blind may not easily learn the concepts of drawing and modeling because they do not have good sight for working through these tasks. In addition there are no adaptations provided to guide teachers on how to teach such subject content to learners with visual impairment...*

Commenting on this further, another teacher said:

"... aspects of drawing, modeling and painting are not suitable for some learners with visual impairment because the learners may not be able to access and use the materials required for them like their sighted peers..."

One of the learners noted: *"...it is very difficult to draw the objects you cannot see..."*

From the data, it can be noted that much as the subject content taught may enable learners with VI to develop vocational skills, teachers' perception about the appropriateness of the subject content taught varies. This means that some subject content taught is appropriate to the needs of learners with VI while others is not due to lack of adaptations. Teachers, therefore, may be hindered from supporting learners with VI to develop vocational skills.

4.3.4 Organization of the Subject Content of Vocational Skills Taught

Regarding organization of the subject content taught to learners with VI in order to develop vocational skills, data from document review analysis indicates that the subject content is organized in modules. A module is package or complete unit of subject content taught in a given period of time. Modularization of the content is expected to make the teaching easier following the themes or the topics (MoES, 2012). The data from documents further indicates that the subject content taught is included on the time table. The time allocated for teaching the subject content is three (3) periods of forty (40) minutes in each week. This time may not be adequate for teaching the subject content due to the need for practice. This may hinder teachers from supporting learners with VI to develop vocational skills.

The data from majority of respondents (34 out of 44) representing (77%) also reveals that in spite of the fact that the subject content taught is included in the time table, the time table is not followed. One of the head teachers had this to say:

"...The time table is not followed; teachers teach other subjects in place of vocational subjects that would enable learners develop vocational skills..."

The fact that the time table is not followed in the teaching implies that learners with VI may not be supported to develop vocational skills in primary schools.

In summary, data, therefore, indicates that an effort is being made to teach learners with VI vocational skills in primary schools. The subject content taught is appropriate although it is inadequate due to a few skills being taught in only art and crafts. Data also indicates that the teaching of the subject content is time tabled although the time table is not followed. More so, data reveals that the time allocated for teaching vocational skills is not sufficient.

The next section presents data regarding the methods used for teaching vocational skills to learners with visual impairment.

4.4 Methods used for teaching Vocational Skills

The second objective sought to assess the methods used for teaching vocational skills to learners with VI in primary schools. Data was obtained using observation and interview methods. The findings are as indicated in Table 6.

Table 6:

Methods used for teaching vocational skills to learners with visual impairment

Response	**Category of respondents**						
Methods	Teachers	Head teachers	CCT	DIS	Learners	Totals	Percentage
Demonstration	12	05	1	1	12	31	70%
Question and answer	10	04	-	-	14	28	64%
Group work	06	04	1	1	09	21	47%
Individualized Education Plan	04	02	-	-	01	07	16%

From Table 6, responses from 31 respondents constituting (70%) indicate that demonstration method is commonly used for teaching vocational skills to learners with VI. When probed as to why the method is commonly used, one of the teachers said:

...to me, demonstration is the cheapest method for teaching vocational skills because I normally gather local materials (banana fiber) which are available for every pupil. During my lesson, I make sure every pupil has a banana fiber. When I am demonstrating, I instruct pupils to follow me step by step... those who fail, I help them. To my surprise, some learners have acquired the skills of making ropes...

This statement implies that demonstration method may not enable all learners to develop vocational skills that they may apply in the community. Figure 3 shows a teacher using a demonstration method for teaching rope making to learners with VI in an inclusive classroom in one of the primary schools.



Figure 3: Teacher demonstrating how to make a rope to the learner with VI

Data in Table 6 also indicates that 28 respondents representing (64%) reported that question and answer is one of the common methods used for teaching vocational skills. According to the respondents, question and answer helps teachers to determine whether the previous lesson was understood by learners as one of the head teachers noted:

"...teachers use question and answer method in all lessons...this is to determine the general knowledge of learners about the lesson... question and answer helps teachers in finding out whether the previous lesson was understood by learners or not..."

This implies that most teachers use question and answer method to determine the general knowledge of learners before engaging them in the practical activities. Figure 4 shows the teacher using question and answer method before leading learners to draw different objects in the school environment.

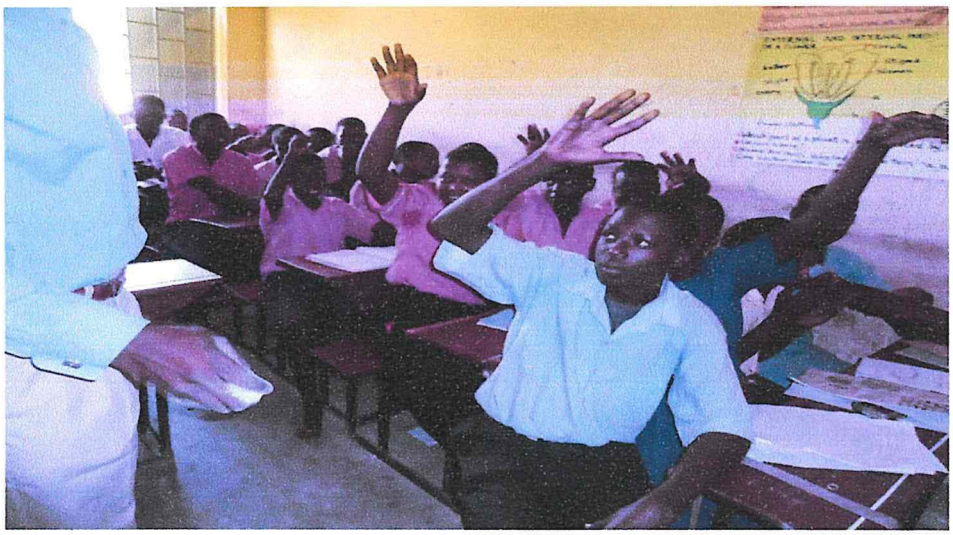


Figure 4: Teacher using question and answer method for teaching

The data in Table 6 further indicates that 21 respondents representing (47%) mentioned group work being among the common methods used for teaching vocational skills to learners with VI. When the respondents were asked to explain why group work is used, one of the teachers said:

".... to maintain class control, it is good to put learners in groups as they do their own activities..." this indicates that the aim of group work as used by the teachers is to maintain

classroom discipline. This may not allow learners with visual impairment to develop vocational skills because they may not be free to interact with and get support from peers.

The data in table 6 also shows that 7 respondents representing (16%) reveal that IEP is among the methods used for teaching vocational skills to learners with VI in primary schools. According to the respondents, in this method, learners are given individual tasks like rope making and learning Braille among others. Explaining on the importance of IEP, one of the teachers said:

> *...Individualized Education Plan has helped me to teach the child with blindness some vocational skills which include daily life skills such as time management and mobility skills... the learner has been able to manage time and move independently from the community to the school...*

The above statement is consistent with one of the learners who said:

> *...I am happy because of the way I am taught in this school. I am able to move alone to collect materials for learning while at home or school. I am also able to share and play with my friends and I do well in class...*

This implies that if the use of IEP for teaching learners with VI is emphasized, then these learners may develop vocational skills useful for their quality life. Figure 5 shows a learner with VI interacting with peers outside the classroom in one of the schools.



Figure 5: Learner with VI with a white cane interacting with peers

In spite of the fact that data reveals the use of learner centered methods like group work and IEP in the teaching of vocational skills, other methods like role-play, project work, exhibitions, field trips and experiential learning were not mentioned. This indicates that only a few learner centre methods are used in teaching vocational skills in primary schools.

4.4.1 How the Teachers Adapt the Methods to the Needs of Learners

The study also investigated how the methods are adapted to the needs of learners with VI. The data is indicated in Table: 7

Table7:

How the teachers adapt the methods to learners with visual impairment

Response	**Category of respondents**						
	Teachers	Head teachers	CCT	DIS	Learners	Totals	Percentage
Teaching with sighted peers together	12	06	1	1	08	28	64%
Use of other able learners	10	05	-	1	10	26	59%
Use of learning materials	06	04	1	1	07	19	43%

Table 7 indicates that 28 respondents representing (64%) noted that teachers attempt to adapt the methods to the needs of learners with VI by teaching them together with their sighted peers. The respondents however, observe that adapting the methods of teaching to the needs of learners with VI is usually difficult as one of the head teachers said:

> *"...adapting the teaching methods to the needs of learners with VI is only possible when the school has a trained teacher in special education. In most schools, teachers have difficulties in adapting methods of teaching learners with disabilities..."*

The similar response was noted by the DIS who said:

...In many schools a good number of exceptional learners do not get adequate support in the classroom... the teaching methods used do not focus on individual learners but for the whole class... this to some extent has not helped in addressing their weaknesses in inclusive primary schools...

The above statements suggest that in spite of the attempts made to adapt the methods, the learning needs of learners with VI may not be addressed.

The data from Table 7 also indicates that 26 respondents making (59%) point out that teachers adapt the teaching methods by use of other learners. One of the teachers had this to say:

...in this school, the more able learners have been given opportunity to assist the less able in class- work. This is much common with our child who is blind. Some sighted learners are advised to support him in most of the classroom activities in which he finds difficulties. Through this approach, the learner has learned many things and he is motivated to be at school...

Table 7 also reveals that 19 respondents constituting (43%) noted that teachers use learning materials as a way of adapting the methods to learners with VI. According to the respondents, learning materials help learners to use their senses during the teaching. In view of this, one of the teachers said:

"..In order to make the 'point go home' teaching/learning materials are used by some teachers to help learners with visual impairment develop vocational skills. The materials used help them to learn through their senses..."

The data, therefore, indicates that there is an attempt to adapt the methods to the needs of learners with VI. However, the methods used might not enable learners with VI to develop vocational skills.

In summary, data shows that although both teachers - centered (theoretical) and learner-centered (practical) methods are used for teaching vocational skills, the common methods used are demonstration and question and answer which are teacher- centered (theoretical) and may not engage the learner in the practice. The data also indicates that there is an effort by teachers to adapt the methods to the needs of learners with VI. However, the adaptations made are not sufficient to enable these learners develop vocational skills.

In the next section data regarding factors hindering the teaching of vocational skills to learners with VI in primary schools is presented and interpreted.

4.5 Factors hindering the teaching of Vocational Skills

This objective was intended to explore the factors hindering the teaching of vocational skills to learners with visual impairment in primary schools. Responses were obtained from all the respondents through interviews and focus group discussion. I found out these factors as; limited resources, negative attitudes, inadequate assessment and supervision of teachers as well as emergence of new technologies as shown in Table 8.

Table 8:

Factors hindering the teaching of vocational skills

Factors	**Category of respondents**						
	Teachers	Head teachers	CCT	DIS	Learners	Totals	Percentage
Negative attitudes	10	06	1	1	18	36	82%
Lack of assessment	12	04	1	1	16	34	77%
Limited resources	12	06	1	1	08	28	64%
Emergence of new technologies	11	05	-	1	-	17	39%
Inadequate supervision of teachers	10	03	1	1	-	15	34%

4.5.1 Negative Attitudes

In Table 8, majority of respondents 36 constituting (82 %) reported that negative attitudes hinder the teaching of vocational skills to learners with VI in primary schools. According to the respondents, some teachers, parents and learners have negative attitudes towards vocational skills training at primary school level. The perception is that these subjects do not enable learners to perform well in academic subjects hence they may drop out of school and fail to earn a living. One of the head teachers said: *"...vocational skills like art and craft work takes a lot of time for learners instead of reading books..."* This response indicates that some head teachers prefer learners to concentrate on academic subjects rather than practical subjects. This attitude may not motivate the teachers to support learners with VI to develop vocational skills.

4.5.2 Lack of Assessment

Responses from Table 8 also indicate that 34 respondents representing (77 %) revealed lack of assessment of vocational skills at primary school level as a hindrance in the teaching of vocational skills to learners with VI. Assessment of vocational skills both at school and national level was reported lacking yet it is expected to motivate the teachers, learners and parents because it shows the progress of the learner in a specific skill. Lamenting on this scenario, one of the teachers said: "... *there is no need teaching skills which are not usually assessed and recognized nationally. This is just a waste of resources....*"

This was further emphasized by the CCT who narrated:

> *...it is very important to note that vocational skills are rarely assessed in primary schools and have never been assessed at national level. Even the National Assessment of Progress in Education (NAPE) programme is limited to literacy and numeracy skills among learners. The continuous assessment expected to be done in schools is done on academic subjects. Learners cannot tell their progress in vocational skills as their marks are not reflected anywhere. I think successful teaching of these skills may only be realized if the government puts up modalities of recognizing the efforts of both the teachers and the learners...*

The fact that vocational skills are not assessed may not, therefore, motivate teachers to support learners with VI to develop these skills. This is because emphasis has been placed on the subjects that are nationally assessed at the expense of those that are not.

4.5.3 Limited Resources

Data from 28 respondents (64 %) show that limited learning resources in primary schools hinder the teaching of vocational skills to learners with VI. The inadequate resources reported include; time, teachers with skills in vocational training, facilities, instructional materials and funds.

Inadequate time

According to the respondents, inadequate time is allocated for teaching vocational skills and this does not enable learners to develop vocational skills through practice. Commenting on this, one of the head teachers said:

> *"...the time allocated for teaching the subject content of vocational skills in primary schools is not adequate for practice. Most learners with disabilities who include those with visual impairment require enough time to enable them develop the skills required..."*

Talking from the perspective that vocational skills are practical, the CCT in her words said:

> *....the time allocated for teaching vocational skills in primary schools is not only inadequate for learners with visual impairment but also those without disabilities.... all learners deserve enough time to practice what is taught or else they may not learn the skills...*

The findings reveal that the time allocated for teaching vocational skills in primary schools is inadequate for learners with VI. Learners with VI require more time in order to develop vocational skills in primary schools. This is because some of them may not be able to accomplish the given tasks within the time allocated due to the limitations imposed on them by the impairment.

Lack of teachers with skills in vocational training

The respondents also reported that the teaching of vocational skills for learners with VI in primary schools is hindered by lack of teachers with skills in vocational training. Teachers with the knowledge in vocational training would be able to design appropriate vocational subject content for learners and this would enable them to develop the vocational skills. Lamenting on this, one of the head teachers noted:

"... Primary school teachers lack skills of teaching vocational skills. The training they get in the primary teacher' colleges are more general, so they cannot teach the skills appropriately to the learners..."

This statement is consistent with the CCT who said:

> *... .the training of primary school teachers does not lay emphasis on the teaching of vocational skills. The vocational subjects taught are combined in one paper (Cultural Studies) and very few tutors teach them practically although student teachers are expected to teach them practically. Theoretical approaches are majorly used that a majority of the teachers employ in the field...*

Inadequate facilities

The data reveals that primary schools do not have adequate facilities to promote the teaching of vocational skills to learners with VI. Facilities like resource rooms and workshops where these learners would be supported to develop vocational skills are not in existence. One of the teachers expressed this and said:

... yes learners with visual impairment have a right to be taught in inclusive primary schools but there are no appropriate facilities for vocational skills training in schools. In this situation, most learners have not been helped to cope with the learning...

Another teacher lamented:

"... we only have two classroom blocks of three classrooms each. The school does not have an extra class for practical work... pupils are taught under trees and storage of our items is poor..."

This indicates that learners with VI do not get sufficient support to enable them develop vocational skills.

Inadequate instructional materials

The data also indicates that primary schools do not have instructional materials like text books, sewing needles, Braille kits as well as computers to support the teaching of vocational skills to learners with VI. The absence of instructional materials limits the teaching of some vocational skills in primary schools. One of the teachers said:

"*...our children are not taught some of the vocational skills because some of the local (traditional) instructional materials commonly used in the teaching are not applicable to all vocational skills...*" This implies that some of the materials readily available in primary schools for the teaching of vocational skills to learners with VI may not be suitable to their needs.

Inadequate funds

Responses from respondents also indicate that primary schools do not have adequate funds to facilitate all school activities. Responding in view of the Universal Primary Education (UPE) grants, one of the head teachers said:

"...our source of funds is UPE....but this provision does not take care of all the school activities... priorities on scholastic materials, exams, games and sports are made during budgeting..."

When I asked why materials for vocational skills are not among the priorities, he answered; *"... these materials are hardly pointed out from the school finance budgets because the teaching of vocational skills is more demanding and relatively neglected..."*

This indicates that in some primary schools, there is a low perception about the value of teaching vocational skills to learners yet this could be a chance for schools to support learners to develop these skills. Lack of funds may hinder the provision of materials and equipment necessary for the teaching of vocational skills to learners with visual impairment.

4.5.4 Teachers' Supervision

Table 8 further shows that 15 respondents (34 %) reported that the teaching of vocational skills to learners with VI in primary schools is hindered by inadequate supervision of teachers. The respondents revealed that the supervision done in primary schools is more on academic subjects and not vocational subjects as one of the teachers said:

> *... our school performance is measured by the number of pupils who have passed Primary Leaving Examination (PLE), supervision is often done on academic subjects and rarely do head teachers ask for schemes of work and lesson notes for vocational subjects...*

This response is consistent with the CCT who said:

"... there is less supervision of teaching /learning in schools by head teachers... this has led some teachers to teach subjects and content by choice..."

The view that supervision of teachers is inadequately done may not, therefore, motivate teachers to support the learners with VI to develop vocational skills in primary schools.

4.5.5 New Technologies

Data from 17 respondents (39%) shows that advancements in technology have led to the use of modern equipment. The use of modern equipment has hindered the teaching of traditional vocational skills to learners with VI in primary schools. The view of the respondents is based on the fact that learners with VI in primary schools cannot make vocational equipment or products that can attract people in this era of modernization. One of the teachers had this to say:

"...the crafts made by our pupils such as ropes, mats as well as baskets may not be compared with the modern ones out of factories which have various colours and designs....."

This implies that teaching of vocational skills in primary schools necessitates teachers to be able to integrate traditional and modern knowledge. This may enable learners with VI to develop vocational skills that can enhance their abilities to make what can be appreciated in the modern world.

CHAPTER FIVE

DISCUSSION, CONCLUSION AND RECOMMENDATIONS

5.1 Introduction

This study was designed to explore how learners with visual impairment in primary schools are supported to develop vocational skills. Three objectives guided the study;

i. To examine the subject content taught to learners with visual impairment in primary schools in order to develop vocational skills.
ii. To assess the methods used in teaching vocational skills to learners with visual impairment in primary schools.
iii. To explore the factors hindering the teaching of vocational skills to learners with visual impairment in primary schools.

Data was collected through document analysis, interviews with head teachers, classroom teachers, DIS and CCT. It was also collected through focus group discussion with learners with VI and observation of learning activities. The chapter presents discussion of findings, conclusion and recommendations. It also gives areas for further research.

5.2 Discussion

The findings presented in the previous chapter are discussed in relation to the objectives of the study.

5.2.1 Subject Content Taught to Learners in order to Develop Vocational Skills

The findings indicate that an attempt is made to enable learners with VI in primary schools to develop vocational skills. Although the subject content taught to learners with VI in primary schools is appropriate, the findings reveal that it is not adequate. This is because it is limited to a few skills in the subject of art and crafts like rope making, drawing and modeling. This finding is not consistent with Mensah, Ameyaw and Dennis (2007) who in their study conducted in Ghana found that, the subject content taught to children with VI in primary schools includes variety of skills like weaving, hairdressing, carpentry, simple car mechanics, shining shoes, and tailoring. Similarly, a study in the US by Mann (2006) found out that the subject content taught to learners with VI is not limited to art and crafts but includes other vocational skills like recreation and leisure skills, blacksmithing, bakery, sewing and mechanics. Comparing the subject content taught to learners with VI in Ghana and the US to the findings of the study, it is clear that the subject content taught in primary schools in Kumi District is not sufficient to support these learners to develop vocational skills. This indicates that teachers may need to collaborate with NCDC and MoES in order to widen the scope of teaching vocational skills to learners with VI in primary schools.

Findings also indicate that some of the subject content taught is not appropriate to the needs of the learners with VI. This is because it lacks specific adaptations for them. Learners with VI therefore, may not develop adequate vocational skills which may be applicable in their daily lives. The findings are not in line with Boissiere (2004) in the US, who suggests that the

subject content of vocational skills taught to learners with VI at primary school level of education should be appropraite to their needs. This prepares them to make good career choices that make them productive members of society. This implies that there is need for NCDC to collaborate with SNE teachers and include adaptations suitable for learners with VI in the subject content taught in order for them to develop vocational skills.

The findings also indicate that the subject content taught to learners with VI in primary schools in order to develop vocational skills is time tabled but the time table is not followed. Teachers teach other subjects in place of vocational subjects. This means that the teaching of the subject content is inadequately done. The findings are in line with the study on the teaching of vocational skills in UK by Paton (2009) which reveals that the teaching of the subject content of vocational skills like hairdressing, cake preparation, construction as well as entrepreneurship is inadequately done in primary schools. He observes that teachers' effort is much more seen in academic subjects than vocational subjects. The finding is also consistent with Lockheed and Verspoor (1994) who note that in many African countries, vocational training at primary school level is not commonly done. This is because primary education systems focus on the development of basic skills like reading and writing. Inadequate teaching of vocational skills to learners with VI may not support learners to develop the skills.

5.2.2 Methods used for teaching Vocational Skills

Teachers' ability to support learners with VI to develop vocational skills is partly dependent on the methods used for teaching. The more practical the methods are, the more likely that learners with VI may develop the necessary skills and competencies.

The findings in this study indicate that demonstration and question and answer methods are the common methods used for teaching vocational skills. Much as it was found out that these

methods may support learners with VI to develop vocational skills, they are not sufficient as noted in chapter four, these methods do not enable all learners develop vocational skills. The findings are in line with Idris (2012) in Nigeria who points out that traditional methods like demonstration, lecture and discussion as well as question and answer which were used for teaching vocational skills to learners in primary schools did not support them in developing the skills compared to project based, computer based and field trip methods. The findings are also cosistent with Aggarwal (1998) in India who notes that most teachers are accustomed to traditional (teacher-centered) methods like demonstration, question and answer which are not mainly practical because they were taught and trained that way. Aggarwal (1998) further argues that this style which still makes up a bulk of teaching in British schools is concerned primarily with the transmission of knowledge and skills from "expert teachers" to the apprentice pupil. In this circumstance, cognitive domain (knowledge skills) is more emphasized than the affective (social skills) and psychomotor (hands-on skills) domain which do not align with the principles of teaching vocational skills. According to Neary (2002) in the UK, where good methods are lacking, learners will not develop the vocational skills in the subject content taught hence the aims and objectives of the course may not be achieved. Nilsson 1998 (cited in Mjelde, 2006), is in an accord with Neary (2002) who states that learners should be taught vocational skills using appropriate methods. He further notes that those in the teaching positions should be able to use the methods that expose learners to the elements of vocational education. These elements include vocational practice, theory and general knowledge.

The findings also reveal that group work is used for teaching vocational skills to learners with VI. The findings are in agreement with Gödek (2004) in Turkey, who note that group work method is commonly used because it may promote child-centered learning where learners work

together for a common goal through sharing tools and materials as well as ideas. However, the findings also indicate that the group work method is not used for the purpose of aiding learning but as a strategy for classroom management. According to the research carried out by Blatchford, Galton and Kutnick (2005) in London, poor organization of group work hinders learners from developing basic vocational skills. Teachers should, therefore, adapt good grouping practices based on the category of learners and the tasks to be accomplished.

The findings further indicate that Individualized Education Plan (IEP) is among the methods used for teaching vocational skills to learners with VI. The findings are in line with Chauhan (1994) in India who reveals that IEP is one of the core methods used for teaching vocational skills to learners with disabilities, learners with VI inclusive. Chauhan (1994), states that IEP minimizes the use of teacher-centered methods like demonstration, explanation and question and answer which hardly make provisions for individual differences. Much as IEP is used as one of the methods for teaching vocational skills in Uganda, a study conducted by Igune (2009) on inclusion of Blind children in primary schools in Moroto district indicates that the use of IEP is a challenge to teachers of learners with VI. He notes that most learners have not developed vocational skills for leading a quality life in society. This implies that teachers may need to be trained on how to use IEP in teaching learners with VI in order to enable them develop vocational skills.

The findings also indicate that there is an attempt to adapt the teaching methods to the needs of learners with VI. The teachers used sighted learners to support peers with VI. My view, however, is that this support is not sufficient. This is because in most of the schools studied, there were hardly any teachers trained to teach vocational skills to learners with visual

impairment. This indicates that there is need to put more emphasis on how teachers should adapt the methods for teaching learners with VI vocational skills as UNESCO, (1994) states:

> Young people with special educational needs should be helped to make an effective transition from school to adult working life. Schools should assist them to become economically active and provide them with the skills needed in everyday life, offering training in skills which respond to the social and communication demands and expectations of adult life (p.34).

5.2.3 Factors hindering the Teaching of Vocational Skills

Although there are attempts made to support learners with VI in primary schools to develop vocational skills, the findings indicate that several factors interfere with the achievement of this goal.

The findings indicate that the teaching of vocational skills is hindered by lack of teachers with skills in vocational training. Most teachers in primary schools do not have expertise of teaching vocational skills. They often use non- practical methods which may not enable learners to learn by doing. This finding is in line with Uwaifo and Uwaifo (2009) in Nigeria who point out that most teachers have poor training background of vocational education. Worse still most of the teachers in the schools of study have not had re-training programmes in order to enable them keep abreast with the ever-dynamic technological innovations associated with vocational training. RothWell and Kolb (1999) in the US maintain that any form of vocational training, requires well skilled instructors who train learners to develop competencies that match with the changes of the world. The teachers should, therefore, be supported to adapt/adopt the new technologies in the teaching learning process.

Another finding relates to the negative attitudes that the stake holders (teachers, parents, community) attach to the teaching of vocational skills. The stake holders have a general perception that learners with VI including other disabilities are not educable. Much emphasis is therefore accorded to academic subjects where the community expects excellence from the "able" learners. This finding is in agreement with Pivik, Mccomas and Laflamme (2002) in Canada who state that negative attitudes by the general public, teachers including learners themselves is one of the most significant barriers to vocational training in primary schools. Pivik et al (2002) add that learners with VI and other disabilities are normally isolated from some vocational activities on ground that they may not cope with the training. The findings also are consistent with the view of Bray and Packer (1993) who observe that addressing special needs for learners with disabilities who include the VI in small states is very difficult. This is because it is not easy to find people at school with both the skill and attitudes needed for work with these learners despite the existence of a few who might be trained to support them.

The findings also indicate that lack of assessment of vocational skills in primary schools hinders the teaching of these skills to learners with visual impairment. The findings are in line with the study in Australia conducted by Barnett and Ryan (2005) on vocational education and training. They revealed that vocational skills in primary schools are not assessed and this has affected accreditation of learners with visual impairment. In addition, the findings are consistent with Dawkins (2013) in Australia who reports that there was inconsistency in the assessment of vocational skills in the training schools. According to Dawkins (2013), this undermines the integrity and value of vocational qualifications in the country. He further notes that ensuring consistency in training and assessment of vocational skills enables learners to be supported in developing the vocational skills.

Lack of facilities and resources like text books, equipment, resource rooms and other infrastructure was indicated as another factor hindering the teaching of vocational skills. It was reported that schools do not have reference books from which teachers can draw the subject content. This implies that the teaching of vocational skills is not done as expected. This experience of lack of facilities is also noted by Okinyal (2006, cited in Okello, 2011) who, when lamenting on the state of infrastructure in vocational training institutions said:

> BTVET institutions lack instructional materials and infrastructure like lecture rooms, teachers houses, workshops, tools, equipment, books and libraries. Yet BTVET is practically oriented and its success is dependent on the availability of teaching materials, tools, machines and equipment. If these are grossly lacking in the institutions, the products from them will not have the competence directly required in the labour market (p.17).

In spite of the fact that the quotation above refers to only vocational training institutions, from my point of view, primary schools which are also mandated to teach vocational skills are part of VET institutions. For this reason, the effort to support learners with VI to develop vocational skills in primary schools should therefore be seen as dependent on the availability of appropriate equipment and facilities. Lack of these facilities may make it difficult for teachers to support learners to develop practical skills and competencies because they may as a result employ non-practical methods for teaching.

Another factor that may be hindering the teaching of vocational skills relates to the time provided. The findings indicate that 3 periods of 40 minutes per week allocated for teaching vocational skills is not adequate. This is because learners with VI require much practice in order

for them to acquire the vocational skills. The finding is consistent with Lucas et al, (2012) in the US who state that vocational subjects require real time to permit the principle of practice. Besides this, learners with VI are disadvantaged by the impairment and may benefit more from a learning environment when sufficient contact time is provided as they are taught vocational skills.

5.3 Conclusion

The study explored how learners with visual impairment in primary schools are supported to develop vocational skills in primary schools. In spite of the limitations experienced in the study, the main conclusion drawn from the findings is that there is an attempt to teach vocational skills to learners with VI in primary schools. However, it is also evident that learners with VI are not adequately supported in order to enable them develop these skills. This is reflected in the findings presented for each of the objectives of the study as shown below;

First, findings indicate that the subject content taught to learners with VI in primary schools in order to develop vocational skills is not adequate because it is limited to a few skills in the subject of art and crafts. In addition, some of the subject content taught to learners with VI in primary schools is not appropriate to their needs because it lacks adaptations for them. This implies that learners with VI may not develop vocational skills in most of the areas of vocational education. Consequently, they may drop out or graduate from school with inadequate vocational skills for survival in the community.

Secondly, there are several methods used for teaching vocational skills in primary schools and they include: demonstration, question and answer, group work and IEP. However, the findings show that some of the methods like demonstration and question and answer may not

be effective in supporting learners with VI to develop vocational skills. This is because they are more of teacher-centered (theoretical) than child-centered (practical). The other methods such as group work and IEP that are expected to engage learners in practical work are also not effectively used. This implies that some learners with VI may not get an opportunity to develop vocational skills at primary level of education.

Thirdly, there are many factors that hinder the teaching of vocational skills to learners with VI in primary schools. Among them are lack of resources, negative attitudes, lack of assessment and existence of modern technology. This implies that there is need to address these factors in order to support learners with VI to develop vocational skills in primary schools. The findings generally point out the need to put in place some recommendations that may support learners with VI to develop these skills in primary schools.

5.4 Recommendations

From the study findings, many factors have been identified that hinder the teaching of vocational skills in primary schools for learners with VI. However, it may not be possible to address all these factors within a short time. I therefore wish to put forward the following recommendations that may be adopted in order to support learners with VI to develop vocational skills at primary school level.

There is need for National Curriculum Development Centre (NCDC) to collaborate with SNE teachers and revise the subject content taught to learners with VI in primary schools in order to enable them develop vocational skills. The review should focus on broadening the subject content that might enable learners with visual impairment in primary schools to develop vocational skills. The review should also provide specific adaptations of the subject content for learners with visual impairment. Additionally, NCDC should supply some instructional materials

like textbooks to primary schools to support the teaching of vocational skills to learners with visual impairment.

There is also need for the Ministry of Education and Sports (MoES) to organize refresher courses for primary school teachers in the discipline of vocational education. This may not only make them aware of the benefit of teaching vocational skills but also equip them with skills and competencies for supporting learners with VI to develop vocational skills at primary school level.

Uganda National Examinations Board (UNEB) should collaborate with Uganda Business Technical Examinations Board (UBTEB) which is mandated to conduct national assessment of vocational skills and initiate the national assessment of these skills at primary school level. This initiative may support learners with visual impairment to develop vocational skills hence the teachers and the general public may recognize the value of teaching vocational skills to learners with VI at primary school level.

District Inspectors of Schools should promote regular supervision on the teaching of vocational skills in primary schools. The supervision may encourage teachers to support learners with VI to develop vocational skills.

Primary school teachers should be encouraged to use a variety of practical methods of teaching vocational skills like project method, field trips and group work. These methods may support learners with VI to develop vocational skills through practice as the time provided in the curriculum may not be sufficient.

Teaching vocational skills to learners with VI may need modern tools and materials. Head teachers should, therefore, be encouraged to prioritize the teaching of vocational skills by

providing teachers with tools and materials that cannot be easily improvised from the local environment. To some extent, this may motivate the teachers to support learners with VI to develop vocational skills in primary schools.

5.5 Areas for Further Research

Based on the findings of this study, there is need for researchers to conduct further research on the following areas;

i. Assessment of vocational skills for learners with VI in primary schools;
ii. Integrating modern technology in the teaching of vocational skills in primary schools.
iii. Influencing stakeholders to value vocational education in primary schools.

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Appendices

Appendix i: Introductory Letter from Kyambogo University

KYAMBOGO UNIVERSITY

P. O. Box 1 Kyambogo, Phone: 041-285001/2 Fax: 041-220464, Kampala
www.kyambogo.ac.ug
FACULTY OF VOCATIONAL STUDIES
DEPARTMENT OF ART & INDUSTRIAL DESIGN

Date: .....

To:
THE DISTRICT EDUCATION OFFICER
KUMI DISTRICT

RE: LETTER OF INTRODUCTION

This is to introduce Mr/Ms/Mrs. OKUDEL KOKAS
Registration No. 2011/U/HD/291/MVP who is a student of Kyambogo University pursing on a post graduate programme in Vocational Pedagogy.

He/She intends to carry out a research in:
SUPPORTING LEARNERS WITH VISUAL IMPAIRMENT TO DEVELOP VOCATIONAL SKILLS IN PRIMARY SCHOOLS
as partial fulfillment of the requirements for the award of the Degree in Masters of Vocational Pedagogy.

We therefore kindly request you to grant him/her permission to carry out the research at your organization.
Any assistance accorded to him/her shall be highly appreciated.

Thank you.

KYAMBOGO UNIVERSITY
★ 09 JAN 2013 ★
DEPARTMENT OF ART AND INDUSTRIAL DESIGN

Yours Faithfully,

Mugisha John
Ag. Head of Department
Art and Industrial Design

Appendix ii: Introductory Letter from Kumi Education Office

KYAMBOGO UNIVERSITY

P.O BOX 1, KYAMBOGO

13TH Feb, 2013

The District Education Officer

P.O. Box 44, Kumi.

No objection.
Proceed with your Research
in Kumi S/C schools

DISTRICT EDUCATION OFFICER

14/2/2013

Dear Sir,

RE: PERMISSION FOR RESEARCH IN KUMI SUB-COUNTY PRIMARY SCHOOLS

I kindly, request for the above reference in your office. As a student at Kyambogo University pursuing a Master's Degree in Vocational Pedagogy, I am expected to carry out a field research in partial fulfillment of the requirements for the award of this degree.

The overall objective of the research is to assess how the teaching of vocational skills to learners with visual impairment in inclusive primary schools is being carried out through the thematic curriculum so as to suggest ways of improving it.

The information provided shall be kept confidential and used for educational purpose. Attached is an introductory letter from the university. Thank you.

Yours faithfully,

Okodel Kokas

2011/U/HD/291/MVP

Appendix iv: Interview Guide for Teachers

Date of interview----------

School----------

Demographic Information

Age: 20 – 29 ☐ 30 – 39 ☐ 40 above ☐

Gender: Male ☐ Female ☐

Teaching experience: 2-5 years ☐ 5-10 years ☐ 10 years above ☐

Subject content of vocational skills taught to learners with VI in primary schools

1. What vocational skills (subjects) do you teach in this school?
2. What subject content of these vocational skills do you teach?
3. What is your opinion about the subject content? Is it appropriate for learners with visual impairment? Give reasons for your answer.
4. How is the teaching of vocational skills to learners with visual impairment organized?
5. What is your view on the time allocated for teaching the subject content of these vocational skills?

Appendix v: Interview Guide for Head teachers

Date of interview----------

School----------

Demographic Information

Gender: Male ☐ Female ☐

Teaching experience: 2-5 years ☐ 5-10 years ☐ 10 years above ☐

Subject content taught in order to enable learners with VI to develop vocational skills

1. What vocational skills subjects do you teach in this school?
2. What subject content of these skills is taught by teachers?
3. What is your opinion about the subject content? Is it appropriate for learners with visual impairment? Give reasons for your answer.
4. How is the teaching of vocational skills to learners with visual impairment organized?
5. What is your view on the time allocated for teaching the subject content of these vocational subjects?

Methods used in teaching vocational skills

6. What methods do teachers use when teaching vocational skills?
7. Why do you think teachers use the method (s) you have mentioned?
8. How do the teachers adapt the methods they use to support learners with visual impairment?
9. What tools and materials do teachers use during the teaching?

Factors hindering the teaching of vocational skills to learners with visual impairment

10. What factors hinder the teaching of vocational skills to learners with visual impairment in this school?
11. In your view, how should these factors be addressed?
12. What other information would you like to share with me regarding teaching vocational skills to learners with VI in primary schools?

Thank you.

Factors hindering the teaching of vocational skills to learners with visual impairment

10. What factors affect the teaching of vocational skills to learners with visual impairment in primary schools?
11. In your view, how should these factors be addressed?
12. What other information would you like to share with me regarding teaching vocational skills to learners with VI in primary school?

Thank you.

Appendix vii: Focus Group Discussion Guide for Learners with Visual Impairment

Date of discussion----------

School ----------

Demographic Information

Learners with low vision:☐ Male: ☐ Female: ☐

Learners with blindness: ☐ Male: ☐ Female: ☐

Subject content taught in order to enable learners with VI to develop vocational skills

1. What vocational skills subject (s) do you learn in this school?
2. Do you like them? WHY?
3. Do you think the time given to these subjects is enough?

Methods used in teaching vocational skills to learners with visual impairment

4. How are you taught vocational skills in this school? (group/individual)
5. What is your opinion on this way of learning vocational skills?
6. What tools and materials are used during the teaching?

Factors hindering the teaching of vocational skills to learners with visual impairment

7. What factors do you think limit you in learning vocational skills?
8. How should these factors be addressed?
9. What other information would you like to share with me as regards your learning vocational skills?

Thank you for your time.

Appendix viii: Observation Guide

Date of observation----------

School----------

1. **Learning organization in the classroom**

- Number of children with visual impairment in class
- Methods used for teaching
- Interaction between the teacher and the learners
- Tools and material (learning aids) used
- time taken for the lesson

2. School Environment

- Evidence of workshops/resource rooms
- Availability of space for learners interaction
- Modifications available for learners with visual impairment
- Interaction between learners with visual impairment and their peers

Appendix ix: Document Analysis Check List

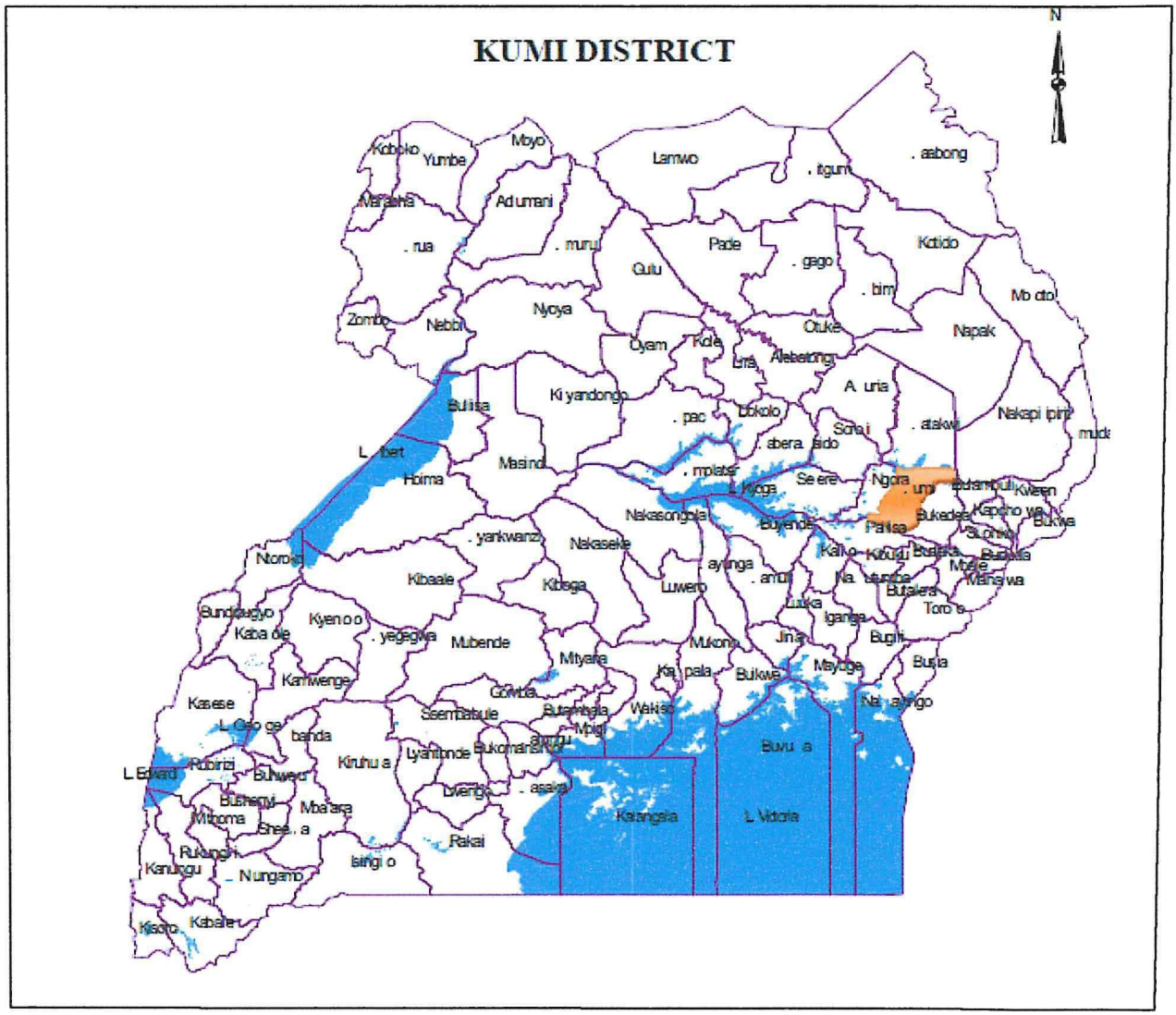
Date of analysis----------

School ----------

1. Thematic Curriculum (P.6 & P.7)

- Objectives.
- Content
- Tools and materials recommended
- Time allocation (time table)

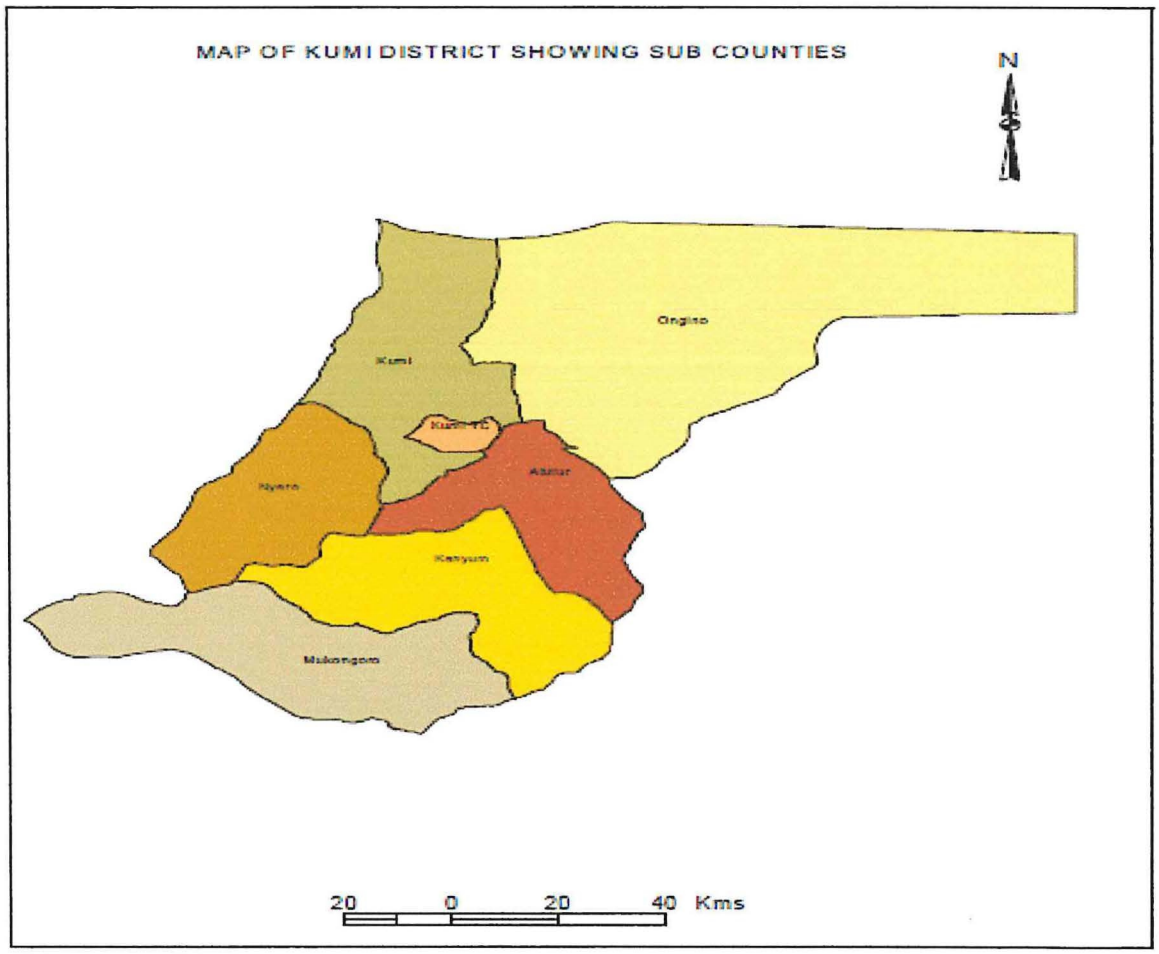
Appendix x: Map of Uganda Showing District of Study



District of study

Source: Uganda Communications Commission (2010)

Appendix xi: Map of Kumi Showing Area of Study



Sub-county of study

Source: Uganda Communications Commission (2010)