

**PROVISION OF VOCATIONAL SKILLS TO LEARNERS WITH DOWN SYNDROME
AT A SELECTED PRIMARY SCHOOL IN KAMPALA CAPITAL
CITY AUTHORITY**

**LOUKAE REBECCA
18/U/GMSN/19460/PD**

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DECLARATION

I, **Loukae Rebecca**, declare that this work is my original work achieved through personal reading and reflections, and has never been submitted to any university for any academic award. All the consulted documents have been acknowledged.

LOUKAE REBECCA

DATE

Signature.....

APPROVAL

The preparation and presentation of this thesis were written following the guidelines on supervision of research projects laid down by Kyambogo University and it is hereby submitted to the graduate board with the approval of the following supervisors:

Signature

Prof. John Baptist Okech

Date

Signature

Dr. Wamaungo Juma

Date

DEDICATION

This work is dedicated to my family, especially my mum, Magdalene Lemukol, siblings and the religious society of the Sacred Heart Sisters who tirelessly supported me with prayers.

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I am extremely grateful to the Lord who has enabled me to reach this far and his graces are truly beyond my understanding. This work has been accomplished with the help of the significant persons who remain so inspirational in my journey of academics.

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LIST OF ACRONYMS

ADLs	Activities of Daily Living
CRPD	Convention on the Rights of Persons with Disability.
DS	Down Syndrome
GWAPE.	Government White Paper on Education
KCCA	Kampala Capital City Authority
LwDS	Learners with Down Syndrome
MoEs	Minister of Education and Sports.
NGOs	Non-Governmental Organization
PWDs	Persons with Disabilities
UK	United Kingdom
UNEB	Uganda National Examinations Board
UNESCO	United Nations Educational Scientific Cultural Organization
UPE	Universal Primary Education
USA	United States of America

ABSTRACT

This study was intended to explore the provision of Vocational Skills to learners with Down syndrome (LwDS) in Kampala Capital City Authority (KCCA) (in one of the Primary schools in Kampala). The study was guided by four research objectives which included; the different types of Vocational Skills taught to LwDS; how Vocational Skills are taught; the educational resources used to teach Vocational Skills to LwDS and challenges faced in teaching Vocational Skills LwDS. The target populations were primary school teachers and learners with Down syndrome (LwDS) of which a sample of 8 participants was selected for data collection. The study used a case study design of qualitative approach and semi-structured interviews to collect data. The data were analyzed thematically and meaning was derived from it. The results revealed that jewellery, sewing, recycling, are the Vocational Skills taught to LwDS even when there is a variety; methods and techniques used were not comprehensive to take care of the various abilities of LwDS. The educational resources used were not exhaustive of the immense existing provisions of the environment while teachers lacked tailor-made training for handling LwDS. The study recommends that MoES needs to invest in designing and developing a tailor-made or specific Vocational Skills curriculum for LwDS and teachers assess LwDS at an early age to determine suitable Vocational Skills.

CHAPTER ONE

INTRODUCTION

1.1 Background

This study was intended to examine the provision of Vocational Skills for learners with Down syndrome. In this chapter, key aspects of the study were addressed. These included; historical background, theoretical and contextual backgrounds, statement of the problem, the purpose of the study, study scope, significance of the study, and definition of terms.

Down syndrome is a hereditary disorder resulting in humans from trisomy of chromosomes that leads to multiple abnormalities such as recurrent respiratory infections and a heart defect. There are three types of Down syndrome - trisomy, mosaic and translocation, with the most common one being trisomy (Kazemi, 2016).

Similarly, Ivic et al., (2016) defines Down syndrome (DS) as a genetic disorder caused by failure of the 21st Chromosomes to separate during cell division and changes the development of the body. It is not a sickness but a permanent life condition of a person. Zhu (2019) describes Down syndrome as a chromosomal disorder that takes place when a person has an extra copy of chromosomes 21. Zhu further elaborates that Down syndrome brings about intellectual disability and also health complications. This indicates that learners with Down syndrome (LwDS) experience difficulties associated with intellectual disability.

Down syndrome is categorized as mild, moderate, severe and profound. The following groups at an early age in school learn Pre-Vocational skills which tend to help them in early preparation for vocational skills, Sudira (2015). Stoel (2001) goes further to say that through intervention programs LwDS learn life –skills. This study looked at LwDS who are mild and moderate and

whose participation in class can be barred by the kind of curriculum that exists for ordinary learners in the inclusive setting.

Looking back to the history of people with Disabilities (PWD) including those with Down syndrome, who were regarded less capable and little attention was given to them by society. In Uganda for instance, many PWD including those with Down syndrome suffered neglect and rejection. The families and communities portrayed negative attitudes by isolating such categories of people, for they believed and considered disability as witchcraft/curse/punishment from the creator for wrongs done (Okech, 1999).

In ancient Rome, children with disabilities were treated as objects of ridicule. Children who were blind, deaf, or mentally impaired were publicly persecuted and reported to have been thrown in the Tiber River by their parents. Some children born with disabilities were mutilated to increase their value as beggars. Other children born with disabilities were left in the woods to die, their feet bound together to discourage anyone who passed by from adopting them. Whereas in the military city of Sparta, the abandonment of "deformed and sickly" infants had been a legal requirement. In addition to that one of the great philosophers in ancient Rome "Aristotle" further recommended that there should be a law that no deformed child lives (Stiker, 2019).

In England, there was the exclusion of children with disabilities from ordinary schools, which occurred routinely not until the enactment of the 1918 Education Act made schooling for all children with disabilities compulsory. This was one of the first steps towards educating children with disabilities globally and by 1921, there were more than 300 institutions for the blind, deaf, physically impaired, intellectual disabilities, and epileptic children in England (Watson, & Vehmas, 2019).

In the United States, Public Law 94-142 (the Education for All Handicapped Children Act of 1975) introduced a piece of legislation that drastically improved the way students with disabilities were to be treated in school settings. Consequently, through the decades that followed, peoples' attitudes towards children and adults with disabilities had become more accepted (Blackie, 2018).

In Africa, most of the communities viewed children with disabilities as community misfits and women who gave birth to children with disabilities were viewed as women with bad luck and cursed by the spirits, as such children with disabilities were viewed as not worthy of receiving any form of education. When there was the introduction of formal education in Africa, however, the missionaries and colonialist started constructing formal education facilities for children with disabilities to enable them to get the required skills to enhance self-dependence. In Ghana, for example, the education of children and youth with disabilities started in 1936 and led to the establishment of a school for the blind at Akropong-Akwapim in 1946. Other Schools were built for the deaf and those with intellectual disabilities in the sixties; these schools were mostly segregated (Patterson, 2018).

The provision of vocational education in Uganda started way back during the missionary formal education era of the early 1920s. The missionaries started vocational education as a supplement to the academic formal education. Through this effort, few institutions began to spread all over the country. During this period, however, the provision of education mostly targeted ordinary learners (Ojwang, 2009).

With the introduction of Special Needs Education in the 1950s, LwDS like any other categories of children with disabilities, found themselves in special homes or institutions, such as Kireka

Home, Kampala School for Mentally Handicapped, Entebbe Welfare, Mukono Bishop west etc. Different units continued to be set as well in mainstream primary schools throughout the country. Whereas these institutions were introduced, LwDS were mostly subjected to life skills such as learning Activities for Daily Living (ADLs), aimed at enabling them to live an independent life, thus, the provision did not emphasize vocational skills for LwDS.

Provision of education to LwDS had come a long way and currently, there has been a lot of advocacy to boost it further. Combined efforts by government, NGOs and all development partners are geared towards attaining this goal and this has encouraged education to continue albeit with little visibility of vocational skills training.

In Uganda today, disability-related policies, legislative framework has been formulated with an emphasis on a rights-based approach. Many conventions and regional treaties have been ratified, laws, policies, regulations, guidelines, executive directives (presidential manifestos) are all in place to achieve the same purpose. These legislations and policies like the constitution of the Republic of Uganda and the Persons with Disability Act 2019 (as amended) have supported the interventions for persons with disabilities including those with Down syndrome. These policies guarantee the right to education for all persons with special needs and in particular, some policies guarantee the right to education for persons with Down syndrome. The Constitution of the Republic of Uganda (1995) Article 30 provides that every person has a right to education while PwD Act (2019) Article 6 subsection (1) gives an obligation to institutions of learning to serve all learners without discrimination. In particular, UPE Policy (1997) brings on board all marginalized groups of learners including children with disabilities and other special needs by according them priority over the 'ordinary children' among others. These legal frameworks indicate that education is possible for most persons with disabilities. In light of the above trends

and measures taken globally, this study addresses itself what Uganda, inter alia, has done so far, and is doing now.

1.2 Theoretical framework

This study was underpinned by Amartya Sen's capability theory which is an alternative to utilitarian based models of social distribution (Sen, 1980). As a moral framework, the capability theory proposes that social arrangements should be primarily evaluated according to the extent of freedom people have to promote or achieve the functioning they value. It emphasizes approaches of empowerment, that is, that persons flourish best when they exercise their capabilities across a range of functioning's or 'doings' and 'beings'. As illustrated in Fig.1, the availability of resources within an empowering environment enables persons with disabilities to utilize acquired skills to meaningfully contribute to society while furthering their aspirations and dreams for a better life through dignified work.

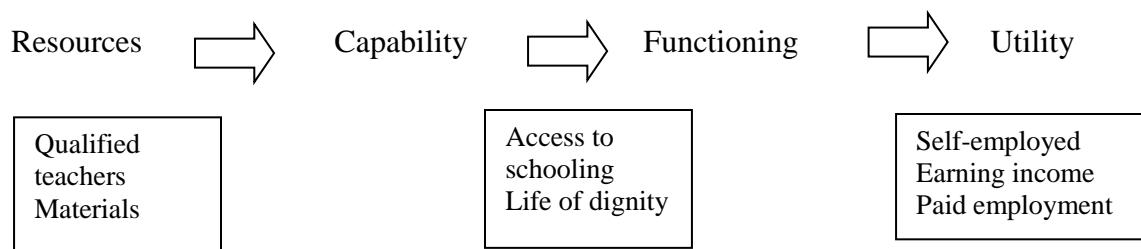


Figure 1: Theoretical Framework

Amartya Sen (1980)

Filho (2005), observed that new possibilities for education exist for especially those with Down syndrome and the capability theory demonstrates that schools can positively influence the lives of disadvantaged persons by enhancing life opportunities concerning the appropriate exercise of capabilities while pointing toward the need to better understand the socio-economic determinants of impairment and disabilities and to promote prevention as an essential element of policies

jointly addressing poverty and disability. The theory allows practitioners and researchers to expand the evaluative space for understanding the role of education in promoting human flourishing amongst persons with special needs.

Sen's approach examines capability not only as composed of the presence of physical or mental ability; rather, it is understood as a practical opportunity. At the same time, the capability approach focuses on the economic resources and needs of persons with special needs and on the economic well-being of this subgroup of the population and how it compares with that of the general population, for example, in terms of income, asset ownership, saving behaviour, and economic needs.

1.3 Conceptual background

Provisions of Vocational Skills refer to a skill training programme that looks at various skills to produce a product in form of real objects that are beneficial to life. Learning a variety of Vocational Skills expected leads one to get experiences in different fields of creativity and appreciation (Jaya, 2018). It is very important to understand the content taught in lessons to achieve vocational skills.

Cortiella et al., (2014) point out how learning including Vocational Skills is a procedure, techniques or methods of carrying out particular and practical tasks that can easily be measured and quantified for the betterment of LwDS. Equally, Oni (2007) opines that Vocational Skills are defined as skills attained most practically in a given setting that is typically not in a classroom.

Nanjwan et al., (2019) state that training of vocational skills could be in one or more of these areas: tailoring, carpentry, weaving (cloths, basket, mats), designing and making of bags, canes, chairs, poultry keeping, agriculture, gardening, masonry, cookery and sewing.

Notwithstanding the challenges LwDS experience, appropriate Vocational Skills training is an essential aspect of preparing learners with disabilities including LwDS for self-reliance in future (Gilson et al., 2017). Provision of Vocational Skills enhances the quality of life of persons with disability (PWDs) including LwDS, especially when given opportunity and when support is also availed to them through enhancement of different Vocational Skills (Hall, 2017).

Equipping LwDS with skills has contributed to the reduction in discrimination among the learners instead it has encouraged equal opportunities to overcome the many challenges (Njombi, 2014). Looking at personal stories of PWDs including LwDS, it is clear that learning Vocational Skills is of great benefit to them since the making of different items enables them to generate some income (Opoku et al., 2017). Most importantly, Vocational Skills provision to LwDS empowers them to live more independently as well as integrate into their communities (Lordina, 2020).

1.4 Contextual background

In most of the inclusive schools, LwDS learn together with ordinary ones right from Nursery to Primary Seven, save for those with severe disabilities. The learners are assessed on daily basis to Establish how they have progressed academically. Many teachers of special needs have been trained in Kyambogo since 1988 when a section was founded to assist in special needs education especially in support of Primary schools in Uganda.

Currently, in the Ugandan primary school syllabus, Agriculture is taught under integrated science and art, technology is taught at middle and upper primary but it is not examinable at the National level. Priority is directed at cognitive assessment of the curriculum by the Uganda National

Examinations Board (UNEB) with assessment at lower primary geared towards competencies in literacy and numeracy as part of the audit of the competencies attained by learners.

Generally, the system of Education in Uganda is examination-oriented as learners have to sit for the examination and get good grades to be promoted to the next level. Vocational Skills related subjects are either not taught by teachers or are just mentioned while the practical part remains untouched. This type of system doesn't seem to put into considerations LwDS, instead, it makes them so vulnerable since they may not do what other ordinary learners do. Many times, LwDS are left behind because they may or are not capable of obtaining the strong academic grades required for promotion.

The methods of delivery of Vocational Skills especially when dealing with LwDS are not clear due to teachers' inadequacies in training LwDS (Chao, 2017), which makes it hard for them to gain knowledge and skills in Vocational Skills compared to their ordinary counterparts. As a result, LwDS have little practice on the given exercises.

The National aims of Uganda's basic Education system contained in the Government White Paper on Education (GWAPE) of 1992 detail that there is a need for eradication of illiteracy and equipping the individual learners with basic skills and knowledge to enable them to utilize the environment for self-development. Emphasis is on equipping learners with skills to enable them contributed to the building of an integrated, self-sustaining and independent economy.

A critical observation of the current situation in Uganda reveals that there have been indirect interventions by NGOs, with the help of parents, towards the plight of LWDS. Such organizations have focused mainly on preparing and empowering parents to support children with Down syndrome through different and relevant training in Vocational Skills. The skills

emphasized include tailoring, mat-making, sewing, and carpentry, showing that little has been done towards skilling LwDS as direct beneficiaries themselves in Vocational Skills as a way of empowering them to be independent and self-reliant in the future.

The government of Uganda has put in place educational provisions aimed at enabling persons with disabilities to access quality education. What remains unclear however is whether special attention has been given to empower LwDS with Vocational Skills, since a lot of attention is given to the ordinary children in most of the schools. The number of integrated schools, where LwDS learn with other groups of learners is on the rise.

The researcher observed that most of the integrated schools seemed to experience some challenges including access to appropriate educational resources, large enrolment of both ordinary and LwDS as well as inadequate trained manpower. Whereas these integrated schools exist, what is not known is whether Vocational Skills and activities are taught to LwDS as a way of preparing them for the future. This study, therefore, sought to explore the provision of Vocational Skills for LwDS in a selected primary school.

1.5 Statement of the Problem

Skilling in community and society as a whole brings about economic and social empowerment, as well as providing personal welfare to LwDS while opening up opportunities for them to be self-sufficient in life. As a commitment to the implementation of the Convention on the rights of persons with disabilities (CRPD) 2006, and other international policies which guarantee access to education for all, several schools in Uganda have been encouraged to enrol LwDS as part of the inclusive strategy in education. However, the current trend in Uganda's primary education curriculum has placed much emphasis on yearly examinations compared to vocational related subjects which emphasize individual learner's progress and thus led teachers to put much attention on examinable subjects. As a result, LwDS cannot compete with their able counterparts due to the difficulties associated with Down's syndrome and hence are left behind. There is little discernable evidence to show that LwDS compared with their other peers are either receiving the attention they deserve or there are actions taken to rectify existing challenges faced by this category of learners. Since education cannot be postponed and LwDS are not provided with the requisite skills, their future remains uncertain. It is for this reason that the current study sought to make valid conclusions and appropriate recommendations for future interventions towards vocational skilling of LwDS.

1.6 Purpose of the Study

The purpose of this study was to explore the provision of Vocational Skills to LwDS in one of the Primary Schools in Kampala Metropolitan.

1.7 Specific Objectives of the Study

The objectives of the study were to:

- (1) Establish the different types of Vocational Skills LwDS are being provided in the primary Schools under the KCCA.
- (2) Ascertain how Vocational Skills are taught to LwDS in KCCA schools.
- (3) Examine the types of educational resources used for teaching Vocational Skills to LwDS in KCCA Schools.
- (4) Establish the challenges faced in the provision of Vocational Skills in Schools to LwDS.

1.8 Research questions

The study will be guided by the following research questions:

- (1) What types of vocational skills are taught to LwDS in the KCCA schools?
- (2) How are Vocational Skills taught to LwDS in KCCA schools?
- (3) What educational resources are used to teach LwDS in KCCA schools?
- (4) What challenges are experienced in the provision of vocational skills to LwDS in KCCA schools?

1.9 Scope of the study

The study carried out covered one of the schools whose name is only referred to as A in observance of the ethical issues in educational research studies.

The study was limited to the provision of Vocational Skills and focused on the Vocational skills taught; how they are taught; educational resources used and challenges faced in the provision.

The study period was the last 2 years - from 2018 to 2020 and this was to allow ample time to assess the provision of vocational skills.

1.10 Significance of the Study

It is hoped that the findings of this study may:

Shed light on how best to implement effective and successful vocational skills of the learners with Down syndrome in Kampala and Uganda at large.

Make a contribution of new knowledge to the existing information on Vocational skills practice in the Ministry of Education and Sports District.

Inform policymakers on how best to eradicate poverty among those with Down syndrome through employing them in varying jobs within the countries.

Highlight challenges faced by Learners with Down syndrome in schools as they learn Vocational skills and thus act as a pointer to those in authority namely: - School administration, parents, teachers, the government to find future solutions to vocational skills training.

1.11 Operational Terms.

Trisomy: refers to one of the chromosomal conditions in Down syndrome cases commonly found in children. This term has been used to refer to one of the categories of Down syndrome.

Vocational pedagogy – career-oriented education/skilling or is the science, art and craft of teaching and learning vocational skills. This term has been used in this study to refer to the methods and techniques used in training Vocational Skills to LwDS.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

This chapter entailed locating, reading and evaluating research articles related to the study. The purpose of this was to establish existing ideas from different sources the world over. This enabled the researcher to be aware of information already gathered or availed and hence find out the gap to be filled by the study. This review was carried out based on the objectives formulated in chapter one which included; the types of vocational skills taught to LwDS in school, how they are taught; resources used in the teaching, and difficulties faced by teachers and learners in the teaching and the learning of vocational skills.

2.2 Vocational skills taught to LwDS in Schools

In this world full of competition, if individuals are to succeed in life, particularly in the world of self-reliance, they need vocational skills, which are a set of skills and activities aimed essentially at the acquisition of the practical skills, knowledge necessary for self-reliance and employment in specific occupation (UNESCO 1977). Vocational skill training equips LwDS with the necessary skills for self-sufficiency in life. It remains clear that education is a key but vocational skill is a master key because vocational skills are becoming a global inclination due to the world's growing productivity in the economy. Vocational skills improve the potential and self-reliance in the world we live in today (Nanjwan et al., 2019)

According to Kassah et al., (2018) learners with intellectual impairment including LwDS ought to learn good vocational skills that can enable them to be self-independent. They need to be

given key vocational skills that are relevant in today's severely changing and the globalized world to enhance their lives and some of the skills are tailoring, farming, animal keeping and everyday activities.

Furthermore, Alamillo et al (2016) stated that persons with disability including LwDS are capable of learning skills when empowered and the skills learnt are tailoring, Poultry, crafts. As the skills are learnt they are utilized and thus responsibility shared with others.

Ayugi (2018) carried out a study and the findings revealed that most learners with mild disability including those LwDS can perform skills for self-sufficiency. She identified these skills like carpentry, cookery, cattle rearing, ornaments making using beads, needlework and dressmaking. These skills, if learnt well, can be helpful for LwDS.

Afetele et al., (2018) in a study points out that most of the activities performed by learners with disability including LwDS in Ghana are similar to those in Uganda and include agriculture, Poultry, bead making, doormat weaving and these activities are almost done in many of the schools of LwDS.

Mprah et al., (2015) in a study on the relevance of vocational skills to persons with disabilities including those LwDS, indicates that the type of vocational skills persons with a disability learn are bead making, tailoring, batik, and tie and dye, rural crafts, dressmaking, shoemaking and they are effective to learners both at school and in their environment.

Adams (2012) on the other hand argued that vocational skills could enhance opportunities for LwDS. He pointed out that Vocational Skills that are relevant for the learners include sewing, beauty care and crafts for girls and carpentry, woodwork, recycling of plastics and briquettes.

These skills can be used in availing opportunities for the LwDS for future employment thus making them self-reliant. The disabled like any other learners look forward to a brighter future.

Similarly, Owiny et al., (2014) pointed out that most disabled persons including LwDS are affected in their different situations in ordinary life, lack resources and are overlooked in society. Therefore, by teaching them jewellery skills, it can help them in future to be self-reliant learners who are also looked at by others with hope for a better society. Equally, Stone-MacDonald, (2010) observes that teaching Vocational skills such as gardening can be so effective and accurately done with a follow up for better results for learners with Down syndrome. Gardening being a practical work can easily help a learner of Down syndrome to observe as they are instructed in whatever needs to be done.

There is also a need for reinforcement in the provision of a conducive learning and caring environment in the school to sustain the training of LwDS Vocational Skills. In a study carried by Edward et al., (2012) it was observed that if we do not recycle things, we shall have wastelands. He, therefore, recommends that education focusing on recycling should be emphasized to learners including LwDS in schools and those we live with. Similarly, Rao (2011) goes on to say that education in our environmental protection is paramount because there is a lot that factories are producing and we have to either recycle these used products or dispose of and because of throwing we are engulfed by waste which is poured in different places causing an unhealthy atmosphere for many people. He emphasizes therefore that recycling is one of the most important Vocational Skills of the modern era. In our homes and cities, it is becoming a concern and this is causing a hazard to healthy living around those designated areas. He continues to explain that recycling represents an act of managing which results in using the materials making the waste. This ought to be taught not only to LwDS but to other ordinary

learners, for this way, LwDS are not only empowered to live self-reliant life but to live in a clean, safe and sustainable environment.

Another skill that Maknun et al., (2014) emphasize is sewing as an important skill for persons with disability including LwDS with the fashions taught being in line with measurements, drawing patterns and cutting cloth patterns. Likewise, Falcao et al., (2016) also go on to say that having disabled persons including LwDS included in the acquisition of sewing skills allows them to be developmental.

Another vocational skill that could be taught to LwDS is hair plaiting done mostly by women (Lukemeyer & Smeeding, 2010; Ingstad, 2011). These authors further explain that LwDS should be enabled to learn the rules entailed in each of the hairstyles so that creativity becomes a sense of social life. Hairdressing in many countries is one of the hobbies loved by many women and it is rich, for this reason, those who can be trained in this field make detailed plans and maintain careful oversight during the project to ensure a positive outcome. Therefore, the LwDS need to have this skill so that they can be self-sufficient.

Carpentry as a skill can also be acquired by LwDS. Training LwDS who are capable of carpentry skills is essential for the development of the country and this enhances the quality of life of the general population. In the developed world like Australia and UK, the government has enrolled LwDS in technical institutes to learn technical skills for increased productivity and self-reliance (Shenoy (2011). The researcher agrees with what the scholars have discussed in their studies. Whereas the scholars have identified salient Vocational Skills such as carpentry, recycling, gardening, which are relevant towards the development of LwDS into independent and self-sufficient individuals in their communities, it is important to note that most of these Vocational

skills which have been reviewed in the studies above seem to be generic to all categories of learners with disabilities. Besides, little information in terms of local research in Uganda has been carried out to ascertain the kind of Vocational Skills provided for LwDS in Ugandan schools. This study explicitly looked at the type of vocational skills offered specifically to LwDS in inclusive schools in Uganda in an attempt to address the gap.

2.3 How Vocational Skills are taught to LwDS

Vocational Skills training for LwDS entails the use of several methods and techniques in primary school. Jaya et al., (2018) observed that the training methods for Vocational skills to learners with intellectual impairment including LwDS are demonstration and direct practice methods. They recommend that teachers need to modify the curriculum to suit the needs of the LwDS while using the methods. Jameson (2012) notes that the best methods for making learning for persons with disability including LwDS are structured programmes where effective direct instruction methods are employed.

Iline (2013) in his studies agrees that demonstration is one of the methods teachers use for learners with disability including LwDS. This is a method in which the teacher presents an activity step by step till the learner gets the skill as they observe and later imitate as well as perform what they have learnt. Rogoff (2007) cited that learning by watching the teacher is one of the common ways of learning where learners acquire skills through direct observation from the teacher and participation. Similarly, Odo et al., (2012) point out that teachers who used demonstration found out that it worked for them as they handled persons with disabilities including LwDS with activities given yielding fruits while evidencing ease and success of work done. Ahamed et al (2015) in their findings conclude that demonstration is likely to be more

productive because of its practicality. Learners with disability including LwDS can be grouped to do their tasks, and it also becomes easy for one to monitor the group as they learn the skills and can also learn from each other.

Video modelling interventions is yet another method for vocational skills training. Sancho (2010) affirms that the efficiency of video modelling in the preparation of a Vocational skill like making a simple meal, opining that adding participatory ability to simplify and maintain the skill is so rewarding to LwDS that they can witness by themselves whatever achievement made.

Beninghof (2020) on his part proposes that co-teaching, which is well planned, has positive outcomes. This is in resonance with Chilimonik (2016) view that involving students with learning difficulties like LwDS showed that when co-teaching is engaged, there is a change in the growth of learners' grades, implying that co-teaching has a positive outcome. Equally, Brendle, et al., (2017) in their study involving general and special needs education teachers found out that the majority of the participants perceived co-teaching as having benefits to the LwDS.

Scaffolding in teaching is another instructional method where according to Van de Pol et al, (2010), teachers show learners how to solve problems, offering support as they need. They elaborate that in scaffolding, a teacher uses different models to guide LwDS in an activity that can be done over and over, till LwDS can get the concept through understanding the activity before the teacher withdraws. Likewise, Anggadawei (2017) and Woodgate (2020) confirm that this helps the LwDS to be independent and self-sufficient. Given the nature of the needs of LwDS, scaffolding is one the most appropriate methods that ought to be regularly used by teachers to support the process of equipping LwDS with Vocational Skills because when it is

used, learners gain independence in handling activities as such activities become self-satisfactory. Likewise, Bakker (2015) pointed out that the active involvement of a teacher in the learning process using the scaffolding method, promotes interactions, collaboration and participation making a LwDS ready for gradual withdrawal as the learners get to be competent. As long as the teaching of Vocational skills is hands-on, teachers ought to be encouraged to use scaffolding to support LwDS when teaching Vocational Skills.

Cooperative learning is another method that requires a lot of preparation for success to be realized. This is where a teacher gives a group of 4 - 6 students a task to perform by working cooperatively with one another, with the teacher assigning different responsibilities to different members of the group. Co-operative teaching is more effective than one-to-one because it mostly favours teachers. However, Bowman (2012) asserts that one-on-one teaching offers the best result because it opens up to make sure the LwDS are attended to with all the needs required like promotion of active learning, knowing the learner more and increase in collaboration as they work together for their success in learning.

Odluyurt (2010) terms the above process as peer-tutoring because it involves pairing LwDS especially those who can engage in selected activities, on one hand, a person with a disability and the other an instructor (a student who has been prepared to help with the supervision of a teacher). Woodgate et al (2020) assert that this methodology has been helpful in that it has improved the performance of learners with special needs including LwDS, since it enables socialization among Learners.

As illustrated by other researchers, there are indeed many methods and techniques used for teaching Vocational Skills to LwDS and these methods and techniques ultimately have a positive

impact on the outcomes in the provision of Vocational Skills. It is also important to note that some of these methods and techniques may require adaptations and or modifications to benefit LwDS. However, when one is not exposed to many of these, teaching becomes difficult. Often, teachers simply use these methods and techniques in an ordinary way or a limited manner thus, affecting the delivery of Vocational Skills lessons to LwDS. The literature reviewed above mainly identified methods for teaching LwDS generally other than specifically vocational skills. This, therefore, creates a discrepancy in the delivery of vocational skills to LwDS. This study covered this gap by focusing on methods and techniques meant for teaching vocational skills to LwDS in our schools.

2.4 Educational Resources used for teaching Vocational skills to LwDS

Teachers require educational resources/materials to be effective in the field of teaching vocational skills to LwDS. They are compelled to have a range of resources whether locally found or externally purchased. Observations drawn from institutions of learning where LwDS are being provided with Vocational skills shows the existence of resources such as sewing and knitting machines, moulds for making candles, wooden frames for making carpets and doormats, which are used in facilitating the teaching of Vocational Skills to LwDS.

Phanice (2014) discovered that some of the equipment used to make the learning of Vocational Skills work efficiently by learners with disability including LwDS are sewing machines and carpentry tools, they aid the process of learning though traditionally since today in countries like USA, England and China, the drones are used to operate machines like sewing machines making work in Vocational Skills simplified. Richards (2019) adds that another resource used is the paint of different colours. This is to enable learning to take shape in that if there is a need to paint an

object, it is done. Equally, the finding is related to Amenakpor et al., (2013) who singled out beads as some of the resources used since one can learn easily and they have been utilized in innumerable ways - in wood form, glass, metal, stones and bones which can be put into different colours.

Wexler et al., (2015) assert that, during institutionalization and after, some of the materials used were cloth and fibres, with the cloth being made into rugs of different colours - blue, green, purple, yellow, orange and red and used for designing different things while teaching Vocational skills to LwDS, meanwhile fibre was used for knitting blankets. Out of cloth and fibre, in the hands of creative teachers, there is a lot one can design, for example, earrings, necklaces of different shapes and colours. From the researchers' observation, of the items made by LwDS in the class, there were several made out of fibres and cloths.

Richards et al., (2019) reveal how art and crafts work can be used to capture the thoughts and feelings of persons with disability including LwDS for as they learn, they sort of getting in touch with them and this encourages them sometimes to open up and enjoy what they are learning.

Resources, therefore, remain the heart of a learner and without resources, nothing can be learnt. The researcher, therefore, concurs with the scholars that the provision of Vocational Skills requires a variety of educational resources to ensure that various Vocational Skills are taught to LwDS. Besides, these skills are practical and for LwDS, learning by doing is the best way to enhance their level of mastery. Teachers ought to make use of locally sourced resources to supplement procured ones. The review, however, reveals that there is no localized study addressing the pertinent issue of educational resources for teaching Vocational Skills to LwDS. Most of the study reviewed are from outside Uganda and this created a wide gap as far as

teaching Vocational Skills to LwDS in Ugandan schools is concerned. This study, therefore, came in handy to address the above gap.

2.5 Challenges faced in the provision of Vocational Skills to LwDS

Like any other service, the provision of Vocational skills to LwDS is faced with several obstacles, and this section reviews such challenges. One of the challenges to the teachers of special needs which is also a key resource is that they do not have a curriculum that is specifically meant for persons with disability including LwDS. Every moment when different vocational skills are taught, it is done based on conviction from the teachers. Abudulla et al., (2015) stated that there is a need for the Ministry of Education and Sports to create a skill-based curriculum of vocational training for learners with disabilities including LwDS as an alternative to existing curriculum that can help the LwDS to function as the ordinary learners.

Westwood (2019) adds that LwDS, especially medium to high-level categories, have a very low level of communication skills which calls for a need to invest in communication resources, cognizant that LwDS with severe disabilities are not even able to learn any type of communication skills and as a result, this might cause big trouble for them to understand the lessons.

In addition, Couzens and Cuskelly (2014) affirm that the problem of the LwDS is the lack of long-term memory. Similarly, Gulsrud et al., (2018), Clader (2010) and Chilmonik, (2016) in their treatise on the effects of professional development on co-teaching of 5th-grade students with exceptional learning needs assert that students with Down syndrome show more indifference to task and love for their guide or tutor. Teachers, therefore, need a lot of motivation, because

handling LwDS is not easy, hence if there is no cooperation among staff, teachers find it easier to drop out of teaching due to frustration.

In both of the above cases, communication remains vital in human development, hence, for easy communication, there should always be a flow of words. Ivic et al., (2019) observe that not all LwDS are the same; their level of functioning is quite different, hence, earlier involvement of LwDS in learning any type of skills especially communication skills helps a lot. Since communication and reasoning are key challenges faced by children with Down syndrome, it is imperative to analyze different ways of enhancing the communication skills of individuals with Down syndrome. Equally, Neil and Jones (2018) argue that understanding lessons mostly requires good language and communication skills, and yet these are present at a very low level in LwDS.

Limited training of teachers in the required skills and indicates that teaching of LwDS can be a major challenge since teachers' do not have the necessary skills to be in a position to deliver the required skills to children with Down syndrome (Kim et al, 2010). The authors further explain that lack of adequate staff in teaching Vocational skills, which are the most suitable skills for LwDS, is further compounded by the lack of resources for teaching since LwDS learn better when they see and touch materials. Most times, teachers without resources are incapable of delivering the needed skills. Odo et al., (2012) state that for a teacher to be skilled, one has to take the initiative of acquiring professional training skills to be fully knowledgeable in teaching Vocational Skills, and when it is done, teaching Vocational Skills would be simplified. Similarly, Adekoya et al., (2011) observe that demonstration is showing a learner to do something like tying a knot, how to thread a needle. It's an involvement that requires high concentration and use of the senses like seeing and touching and helps teachers to see their results as they teach, it is

this method that helps the teacher to notice learners who require more help than the others. The teachers however ought to be patient with their learners since they may in most cases be slow coupled with a short attention span. Iline (2013) further states that demonstration requires prior preparation before teaching is conducted. This is to take into account steps to be followed and to ensure that errors are avoided while teaching.

As for challenges faced by LwDS, there is a lack of their direct involvement in activities, making them feel incapable and overwhelmed by what goes on around them (Riesen, 2014) although Buckley (2015) clearly states that LwDS are capable to perform activities just like any other ordinary learners as long as they are taught right from their early age.

Aron (2012) from his findings observes that most times learners with disabilities including LwDS tend to lag because sometimes they can't do things that are of higher complexities depending on the level of their reasoning, for they tend to give up or drop out of school. Marshak et al., (2010) similarly argue that difficulties faced by learners with disability including LwDS are because sometimes they don't know what suits them. After all, they can't express themselves when the lesson is on, hence, teachers give what they feel is a skill though complicated and as a result, they sulk and fail to do the work. Abdullah et al., (2015) go on to say that they become slothful, unstable and avoid work given to them.

Despite the challenges noted above, when learners are given access to education in any Vocational Skills, they can start up their projects and eventually become efficient in whatever they have learnt. LwDS that are trained can start projects that will ensure positive outcomes; therefore, LwDS need to have vocational skills so that they can be self-employed in future (Ingstad, 2011).

The researchers have looked far and wide to make sure they touch base with some challenges that tend to interfere with the process of learning Vocational Skills and it's so clear that there are several challenges faced by both teachers and LwDS as far as the provision of Vocational skills. Teacher training in Vocational Pedagogy is very vital to ensuring the success of the teaching of Vocational Skills to LwDS. Therefore, in the situation where teachers have inefficiencies in their knowledge and skills in teaching Vocational Skills, LwDS experience gaps in their training. The literature reviewed above from most of the scholars however generally looks at generally challenges in teaching LwDS and not explicitly addressing the gaps as far as teaching Vocational Skills to LwDS is concerned. This study, therefore, attempted to address this gap by focusing on the challenges associated with teaching Vocational Skills to LwDS.

CHAPTER THREE

METHODOLOGY

3.1 Introduction

This Chapter describes the strategy that was used to collect data for addressing the research questions. The research questions that guided this study were: What types of vocational skills are taught to LwDS in the KCCA schools?; How are Vocational Skills taught to LwDS in KCCA schools?; What educational resources are used to teach LwDS in KCCA schools?; and What challenges are experienced in the provision of vocational skills to LwDS in KCCA schools? This chapter highlights the research approach, research design, area of study, selection of the population, sample size, research methods, and the tools that were used to collect data, quality control measures and ethical considerations during research and data analysis.

3.2 Research Approach

Bryman (2016) and Eyisi (2016) detail three research approaches and classify them as qualitative, quantitative, and mixed methods. In this study, the qualitative research approach defined by Creswell (2013) as an approach of exploring and understanding individuals, groups in their social or human problem, was employed in an attempt to explore the vocational skills taught to LwDS. The qualitative research approach was selected because it uses a small number of participants and relies on interviews and recorded information. This approach was also favourable in that it helped the researcher to obtain information from participants in a formal setting, which is a school for learners with Down syndrome.

3.3 Research Design

According to Creswell (2014), a research design is a framework that provides specific direction for procedures in a research study. The study adopted a case study design to get an in-depth exploration from multiple perspectives of the participants (Yin, 2014). The design was preferred because it enabled the researcher to obtain detailed information about the provision of Vocational Skills to LwDS in a natural setting. The natural setting, in this case, was the school in Kampala Capital City Authority

3.4 Area of Study

The study was carried out in one inclusive primary school Nakawa Division, KCCA. Nakawa Division is located on the eastern part of Kampala city and borders Kira Town council to the east, Wakiso District to the north, Kawempe Division to the north-west, Kampala Central Division to the west, Makindye Division across Murchison Bay to the south-west and Lake Victoria to the south. In KCCA there are about 20 inclusive education schools.

3.5 Target population

A target population is a group of individuals with specific attributes of concern and relevance to the research problem under investigation (Asiamah et al., 2017). They were teachers (N=39) and LwDS (N=25). The teachers were chosen because they are the ones who were involved in the day-to-day teaching of LwDS, while the LwDS are the beneficiaries of the Vocational Skills. The entire population for the study was 64.

3.6 Sample Size

The sample size is a description of a group of people, item, objects that are taken from a bigger population as repetitive for measurement. According to Boddy (2016), samples are used to generalize the findings to the entire population. For this particular study, the sample comprised 6 teachers, and 2 LwDS, giving a total of 8 participants.

Table 1: Sample of participants

Categories of Population	Number of participants.
Teachers of LwDS	6
LwDS	2
Total	08

3.7 Sampling Techniques

The researcher used the purposive sampling technique which according to Maxwell (2013) is a non-probabilistic sampling method where the samples of the study are chosen basing on their characteristics and judgment of the researcher. Purposive sampling was used to select teachers who are directly involved in teaching LwDS in the school. These also had ideas on the relevance of the topic under investigation. The criterion used to select teachers was based on their experience in teaching LwDS including Vocational Skills in the schools. The LwDS were also selected purposively through snowballing technique because, during the time of data collection, the researcher was affected by Covid-19 whereby all learners were at home. So, direct visits to the participant's homes in their locality were done.

3.8 Methods of Collecting Data

There are many methods of collecting data in qualitative research approach including among others interviews, document analysis, observation, archival records and artefacts and focus groups (Yin, 2014). In this study, an interview was used in collecting data.

3.8.1 Interviews

Yin (2010) defines an interview as a way of data collection involving gathering verbal information from participants. The interview is usually conversational involving an interviewee and interviewer. There are three types of interviewing in research, that is, structured interviews, semi-structured, open-ended interview (Silverman, 2014). Structured interviews involve neutrality with no prompting, training to ensure consistency. A semi-structured interview encourages probing and some flexibility on questions. An open-ended interview however requires flexibility with the interviewee and active listening without fixed questions. However, a semi-structured interview was preferred because it allowed the participants to talk freely without much control and also allows the researcher to adjust the questions where possible and keep probing interviewees as much as possible. The interview schedule contained some open questions, focusing on specific situations, and action sequences in the real environment. Specifically, interviews were used to establish from each participant the nature of vocational skills taught to LwDS, the methods used to teach Vocational Skills the challenges faced in the provision of vocational skills to LwDS. In this case, interviews were conducted with teachers and the LwDS.

3.9 Credibility and Trustworthiness

Credibility and trustworthiness refer to the criteria of judging how true, credible, real; truthful the finding is to the researcher, the participants and the other readers of the study (Bryman, 2016). To ensure the credibility and authenticity of the research findings, the following procedures were followed:

The instruments were designed by the researcher, discussed and validated together with the supervisor. Pretesting of the instruments was done under the guidance of the supervisors.

Real narratives of direct quotes from the participants have been presented in the data analysis as a confirmation of what transpired in the field.

3.10 Data Collection Procedure

Before undertaking the actual study in the proposed area, approval of the research proposal by the supervisors as well as the Department of Special Needs Studies (SNS) Kyambogo University was sought. Permission to conduct the study was also sought from the Head of Department, in which an introductory letter was obtained by the researcher. On obtaining permission, the researcher formulated a request letter addressed to the prospective participants and thereafter made visits to the proposed study location to meet the prospective participants. The researcher sought permission from the school administration to be allowed to meet and establish rapport with the participants to present the expectations, seek informed consent and also get expectations of the prospective participants. On agreement between the researcher and the participants, semi-structured interviews were scheduled and administered to each participant. During the interview, the conversation was audio-recorded and at the same time, there was note-taking by the

researcher. After interviews with the teachers, the researcher sought permission to observe some of the equipment used, artefacts displayed to affirm what the teachers shared.

3.11 Data Analysis

The study was qualitative and therefore thematic data analysis approach was used in which data was presented descriptively. Data on each theme was scrutinized to ascertain that each theme accurately represents the context as established on the ground by evidence. The researcher also used the verbatim of the participants to complement the findings. The first step in data analysis was transcribing, coding and categorizing data into themes that reflected the study objectives. Data from each participant was treated independently to identify the similarities and differences.

3.12 Ethical Considerations

Ethics is a way of self-regulation, whereby different disciplines and organizations attempt to demonstrate a professional approach to researchers (Gajjar, 2013). These ethical norms help to ensure that researchers are held accountable to the public. Ethical considerations were taken care of by, first, seeking authorization from Kyambogo University administration and other relevant authorities. Confidentiality was highly emphasized as a way of protecting the participants, besides their participation was voluntary. The researcher gave a briefing to the participants on the purpose of the research, their relevance in the research process, and expectations from them as explained by Novak (2014). The real name of the school has not been used and instead, a nickname has been used. The participants got involved in the study with informed consent and were free to withdraw their participation if wished to do so. The anonymity of participants has been ensured by using codes to represent them.

3.13 Limitations and Delimitations

Due to the Covid-19 pandemic, the researcher was faced with difficulties in getting access to the participants to carry out the interviews. The participants were not found in one location as it was earlier on anticipated. Many of them had left school for their homes of which some were far away from Kampala. However, the researcher solved this problem by tracing each participant to their respective homes both within and outside Kampala to carry out interviews.

Due to the lockdown necessitated by the COVID-19 pandemic, some of the aspects deemed relevant to the study such as observing the actual teaching and learning sessions could not be achieved by the researcher. However, it was evident that during interviews the teachers and learners were able to elaborate on the different crafts, materials used in the process of learning.

Having discussed the strategy in which the study was conducted, it is worth noting that in the next section, the results have been presented and discussed.

CHAPTER FOUR

PRESENTATION, INTERPRETATION AND DISCUSSIONS OF FINDINGS

4.1 Introduction

This Chapter details the presentation, interpretation and discussion of findings of the study that sought to explore the provision of Vocational Skills for learners with Down syndrome in Kampala Capital City Authority. Data are presented according to the study objectives that include: nature of Vocational Skills taught to LwDS; how Vocational Skills are taught to LwDS; educational resources used in teaching Vocational Skills; and challenges faced in teaching vocational skills to LwDS.

Data were obtained from participants using interviews. The chapter is structured as follows; section A is the demographic characteristics of the participants, and section B is the presentation, interpretation and discussion of findings. In the presentation of findings, direct quotations from the participants have been presented to enrich the findings. To maintain anonymity, codes have been used to hide the identity of participants thus, “Tr” and “L” have been used to represent teachers and LwDS respectively.

4.2 Description of the Participants

The participants of the study were LwDS and the teachers who directly work with LwDS in the school. The total numbers of participants were 8 of which 6 were teachers and 2 were LwDS. These were purposively selected.

Table 2: The Demographic composition of the participants

Category	Gender		Total
	Male	Female	
Teachers	00	6	06
LwDS	01	1	02
Total	01	07	08

Source: Primary Data

The teachers were only females because they are the ones who work with LwDS in the vocational class i.e., no male teacher works with LwDS in this school.

4.3 Presentation, Interpretation and Discussion of Findings

This section presents interprets and discusses the findings of the study and it is presented in line with the study objectives.

4.3.1 Vocational skills taught to LwDS in the School

The study sought to establish the Vocational Skills taught to LwDS. From the findings, the following sub-themes emerged: Jewelry, recycling of different items, and Sewing.

Jewellery Skills

Participants (n=6) of the study expressed that LwDS are taught jewellery skills. The participants explained that LwDS learn how to make bangles, necklaces, earrings, and key rings. One of the participants expressed: *“I do Bangles, necklaces and earrings for putting on the ears”* (L1). Another participant stated: *“In art and craft we do a variety of things like teaching how to make necklaces, bangles, earrings, and key rings”* (Tr.3). In addition, another participant said: *“Me make mats”* (L 2).

The above finding and expressions of participants suggest that LwDS are taught jewellery skills such as making earrings, keyrings, which is one of the vital vocational skills which can facilitate their future self-reliance.

Recycling materials

Participants (n=3) reported that LwDS are engaged in the recycling materials. Participants mentioned that LwDS learn how to recycle items such as using plastics to making flower vases, wasted paper, sawdust, for making briquettes, Photo frames, old clothes for making doormats, and carpets. One of the participants responded: *“I learn to recycle old mattresses to make balls; I also recycle African material*

collected from toilers to make doormats” (Tr.1). Another participant affirmed: “We use wasted paper and sawdust from carpenter’s workshops to make briquettes for cooking. We use old clothes, old t-shirts to make doormats and carpets.” (Tr.5). Similarly, another participant added: “I use cardboards from cartons to make frames for photos” (L1).

The above views of participants indicate that recycling is one of the most important Vocational Skills of the modern era which ought to be taught not only to LwDS but to other ordinary learners organizing ourselves. It also suggests that LwDS are not only empowered to live self-reliant life but to live in a clean and sustainable environment.

Sewing

Participants (n=3) reported that LwDS are also engaged in sewing as one of the vocational skills. They elaborated that there are some sewing machines in the school which they use to train LwDS this skill. One of the participants said: “we have machines that enable us to teach sewing. They do this with a lot of prompts” (Tr.4). Another one responded: “Yes, we do tailoring though some of the machines are not in a good state, so we are limited in offering learning to many learners (Tr.1). Another participant added: “there is sewing but only two machines are working” (Tr.3).

The findings above indicate there is sewing taking place but the machines are not enough for the learners because there are only two functioning. The results also suggest that teachers provide adequate support in form of prompts to enable the learners to attain the skills. Afetele et al., (2018) in a study points out that most of the activities performed by learners with disability including LwDS include agriculture, Poultry, bead making, doormat weaving and these activities are almost done in many of the schools of LwDS. Similarly, Mprah et al., (2015) in a study on the relevance of Vocational Skills to persons with disabilities including LwDS, indicates that they learn bead making, tailoring, batik, and tye and dye, rural crafts, dressmaking, shoemaking. They elaborate that these skills are appropriate to learners both at school and in their home environment in today’s severely-changing globalized world as a means to enhance their

lives. Similarly, Adams (2012) observes that vocational education skills can enhance opportunities for learners with Down syndrome. Vocational skills that are relevant for the learners include sewing, beauty care and crafts for girls and carpentry, woodwork, recycling of plastics, Briquettes for boys. These skills can be used to avail opportunities for the LwDS for future employment thus making them self-reliant. Equally, Owiny et al., (2014) point out that most disabled persons including LwDS are affected in their different situations in ordinary life and are overlooked in society. Therefore, by teaching them skills in Jewelry, it can help them in future to be self-reliant citizens who are also looked at by others with hope for a better society. Maknun et al., (2014) emphasize that sewing is an important skill for persons with disability including LwDS. Likewise, the findings also concur with Edward et al., (2012) who argue that if we do not recycle things, we shall have wastelands and recommends that education focusing on recycling should be emphasized to learners in schools including LwDS.

It is indeed very important that education of LwDS ought to focus on Vocational Skills as the means of providing meaningful and or relevant education that eventually promotes their integration into society. There is, therefore, a need for reinforcement in the provision of an enriching learning environment in the schools to sustain the training of LwDS in Vocational Skills.

4.3.2 How Vocational Skills are taught to LwDS

In this section, the study sought to explore how Vocational Skills are taught to LwDS in primary school. The issues that emerged from the data are methods and techniques used in teaching Vocational skills

4.3.2.1 Methods

Regarding methods used in teaching Vocational skills, two outstanding methods came out. That is, scaffolding and demonstration.

Scaffolding

Participants (n=5) mentioned that scaffolding is one of the methods they employ in teaching Vocational skills to LwDS. They elaborated that scaffolding is a way of giving support to LwDS to accomplish tasks whenever they are teaching them vocational skills. One participant responded:

I use numerous methods especially by creatively showing the pupils how to do the work practically and this enables the students to be in a position to understand what the teachers are doing (Tr. 5).

Another participant stated:

We use the scaffolding method to teach the children because it helps them to attain their goal when taught step by step. When we use other methods, they do not learn easily especially with observation (Tr.4).

The above findings suggest that one of the methods used by teachers in teaching LwDS Vocational Skills is scaffolding. It also suggests that given the nature of the needs of LwDS, scaffolding is one the most appropriate methods that ought to be regularly used by teachers to support the process of equipping LwDS Vocational Skills. It further implies that when scaffolding is used, learners gain independence in handling activities as they become self-sufficient.

The finding is in agreement with Bakker (2015) who points out that the active involvement of a teacher in the learning process using the scaffolding method promotes interactions, collaboration, and participation which makes a LwDS ready for gradual withdrawal as the learners get to be competent. The fact that the teaching of Vocational skills is hands-on, teachers ought to be encouraged to use scaffolding to support LwDS when teaching them Vocational skills.

Demonstration

Participants (n=4) stated that they use the demonstration method to enable LwDS to learn Vocational Skills. They explained that through demonstration, they make LwDS observe what they do step-by-step and later on allow them to imitate the very activity. One of the participants affirmed:

A child can observe the teacher making something. She/he observes me and S/he can therefore learn and do the necessary skills done. A child sees what I am doing then s/he also repeats after me (Tr. 6).

Similarly, another participant pointed out that: “I go to class creatively with Visual aids and I develop different objects for the pupils to learn from” (Tr.5).

The finding and verbal responses above suggest that LwDS can grasp skills easily when teachers demonstrate activities and allow them to imitate which leads to the acquisition of Vocational Skills. It also suggests that teaching Vocational Skills to LwDS is based on creativity on the side of teachers.

This finding concurs with Odo et al., (2012) who in their study indicate that teachers who used demonstration, found out that it worked for them as they handled learners with disabilities including LwDS. The activities given yielded fruits and there was ease and success of work. Similarly, Adekoya et al (2011) observe that demonstration is showing a learner to do something like tying a knot, how to thread a needle. It’s an involvement that requires high concentration and use of the senses like seeing and touching and helps teachers to see their results as they teach. This method helps the teacher to notice learners who require more help than the others. The teachers however ought to be patient with their learners since they may in most cases be slow coupled with a short attention span. Iline (2013) further says demonstration requires prior preparation before teaching is done. This is to take into account steps to be followed and to ensure that errors are avoided while teaching.

4.3.2.2 Techniques

When participants were asked about the techniques, they use in the teaching of LwDS, they mentioned one-on-one correspondence as to the main technique they employ to facilitate the teaching of vocational

skills to LwDS. They elaborated that this is normally used for learners who are not able to attain a given activity easily and to be able to achieve the goal, there is a need to teach them one by one and step by step until he/she gets the skill required. One of the participants said: “Uuh! With the techniquemajorly I do apply the one-on-one technique in that when one has not understood the other friends then can teach that learner alone” (Tr.6). Another participant said: “I use a one-to-one technique whereby I sit with one or two children and explain what I want them to do” (Tr.3).

The finding and verbal statements point to the fact that teachers seem to be aware that the kind of learners they have, require one-to-one correspondence to enable them to grasp what they are being taught. The findings also suggest that teachers have to creatively explore the most appropriate technique to facilitate skill development in LwDS.

In agreement with the finding above, Jameson et al., (2012) carried a study and observe that one-to-one embedded instruction implemented with each student with developmental disabilities including LwDS in general education is a more effective individualized instructional technique to support their learning. They further recommend that this technique should be adopted to teach other learners with disabilities.

Likewise, Bowman (2012) asserts that one-on-one teaching offers the best result because it opens up to make sure the LwDS are attended to with all the needs required for their success in learning met.

Teachers who are engaged in empowering LwDS Vocational Skills are therefore encouraged to use the one-on-one technique to ensure that Individualized instruction is accomplished, given the nature of varied needs that LwDS may have.

4.3.3 Resources used for teaching Vocational skills to LwDS

In this subsection, the study was intended to establish the resources used in teaching Vocational Skills to LwDS. Two main issues including equipment and other materials were raised.

4.3.3.1 Equipment

Regarding equipment used in teaching Vocational Skills to LwDS, participants (n=6) responded that they use Wooden frames for making carpets, Moulds from making candle wax and knitting machines and sewing machines to teach embroidery and sewing skills respectively. One participant said: “We have machines for making sweaters and also for sewing though they are not in a good state. We also have moulds for making candles” (Tr.1). Another participant added: Based on the findings and verbal statements above, it suggests that even with the meagre number of equipment, the teachers have made their efforts to empower LwDS with Vocational Skills.

4.3.3.2 Other materials used

When participants were asked about other materials, they use in teaching Vocational Skills, they stated that they use beads of different colours and types including glassy beads and wooden beads, threads of different colours, banana fibres, sisal, wax, Ingredients for making liquid soap, wasted paper, and sawdust. This is emphasized by one of the participants who reported: “I make liquid soap using ungarol, caustic soda, perfume, sulphuric acid, thickener and salt” (L1). And (L2) said: “Me make bags beads”. Similarly, another participant responded: “The other materials we use like beads are for making necklaces, bangles etc. We also use a big bucket for making liquid soap” (Tr1).

The finding and verbatim stated above show that besides equipment, there are a lot of other educational resources or materials that teachers require to facilitate the teaching of Vocational Skills to LwDS. The finding also indicates that some of the materials are locally improvised while others need to be bought to facilitate the teaching of Vocational Skills to LwDS.

The finding is related to Amenakpor et al., (2013) who said that beads are some of the resources used since one can learn them easily and have been utilized in innumerable ways. These can be in wood form, glass, metal, stones and bones which can be put into different colours.

According to Wexler et al (2015) affirms that during institutionalization and after, some of the materials used were cloth and fibres and the cloth was made into rugs of different colours blue, green, purple, yellow, orange and red and was used for designing different items while teaching Vocational skills to LwDS, meanwhile fibres was used for knitting blankets. Out of cloth and fibre with creativity from teachers, there is a lot one can design for example earrings, necklaces of different shapes and colours can be made for use.

Teaching Vocational Skills require a variety of educational resources to create different skills needed by LwDS for their survival and integration in society. There is a need for school stakeholders to ensure that other available materials (resources) are made available for use by teachers in facilitating Vocational Skills learning by LwDS.

4.3.4 Challenges faced in the provision of Vocational Skills LwDS

In this section, the study sought to examine the challenges experienced in teaching Vocational Skills to LwDS in primary schools. From the findings, two broad themes emerged, i.e., difficulties experienced by teachers, and those experienced by the LwDS. These are explained below.

4.3.4.1 Challenges experienced by teachers

Participants were asked to give their views regarding challenges experienced by teachers in teaching Vocational Skills to learners with Down syndrome. The following subthemes emerged: learners are slow, communication barriers, and limited training. These are explained below.

Learners are slow

Participants (n=6) stated that learners with Down syndrome are slow. It was also stated that they are impatient which limits them from finishing given tasks. One of the participants mentioned that:

These children are slow learners and due to that, you become impatient yet you have stipulated time that you are supposed to finish such a piece of work in a given period (Tr.4).

Another participant stated that:

The challenge I face in teaching these learners is that from time to time a child is not grasping what you are teaching him/her. For a long time, you teach one thing instead of going to another thing. You are on one thing from month to month and it's the biggest challenge of all (Tr.2).

Another participant added: "She doesn't know everything and I do not have a specific way of teaching these learners because every child has a different ability in learning" (Tr.5).

Inadequate training

Participants (n=4) also reported that they face a problem of inadequate skills in teaching Vocational Skills to LwDS. They said that due to lack of adequate training in Special Needs Education and specifically teaching Vocational Skills, they find it difficult at times to appropriately facilitate their teaching. This is confirmed by one of the participants who said: "I lack qualification because I am a trained teacher for regular classes and not for special needs learners...who need specialist teachers" (Tr.4).

I do not have all the skills in vocational education and therefore we work together with other teachers. I might be good in Doormat making and maybe collage, or liquid soap making. This, therefore, enables me to overcome the challenge of lack of appropriate skills (Tr.5)

Inadequate Educational Resources

The participants also stated that they face a problem of inadequate resources including equipment and other materials for teaching Vocational Skills to LwDS. They elaborated that at times some of the LwDS are interested in some particular skills but they are limited by resources to teach such Vocational Skills of preference. This is echoed by one of the participants who responded: "Though there are some materials, all the same, they are not enough if you want to teach new skills like hairdressing, making dolls, simple sandals" (Tr.6). Furthermore, another participant said: "At times we run short of materials and as a result, we leave some activities pending as we continue to wait for the needed materials to be brought (Tr.1).

From observations made at the school, the findings show that the school has only one knitting machine, 2 functional sewing machines, and one mould. This clearly shows that the educational resources are not adequate compared to the LwDS the school has.

Communication difficulties

Participants expressed that they experience communication barriers when teaching LwDS Vocational Skills. It was stated that during the lessons the teachers have to be creative to ensure that LwDS understand the lessons being taught. One of the participants shared: “I take time to express with patience because if not the LwDS will not understand what I am teaching” (Tr.1). Another one stated: “I find it hard to talk to LwDS because she/he gazes at me without responding so I don’t know whether she/he has understood me or not” (Tr.2).

From the findings and verbal statements embedded in it, it is evident that teaching LwDS is difficult for the teachers since they are numerous challenges encountered during the teaching of LwDS. The findings also suggest that whereas the teachers have the will to empower the LwDS with Vocational Skills, they may not do it satisfactorily as a result of the limitations posed by inadequate training, inadequate equipment and materials as well as communication barriers.

The findings are in agreement with Couzens and Cuskelly (2014) who affirm that the problem of the students with Down syndrome is the lack of long-term memory which affects their pace of doing activities. Equally, Neil & Jones (2018) argue that understanding lessons mostly requires good language and communication skills, and yet these are present at a very low level in LwDS. Likewise, Westwood (2019) adds that LwDS, especially medium to high-level disabilities, have a very low level of communication skills. Westwood further adds that LwDS with severe disabilities are not even able to learn any type of communication skills and as a result, this might cause big trouble for them to understand the lessons.

Kim et al., (2010) indicate that teachers are faced with a lack of adequate resources for teaching Vocational Skills because LwDS learn better when they see and touch materials used while Odo et al., (2012) observe that for a teacher to be well skilled, one has to take the initiative of acquiring professional training skills to be fully knowledgeable in teaching Vocational Skills.

Teaching Vocational Skills to LwDS ought to be hands-on and therefore, stakeholders need to make arrangements such as re-training of teachers and providing adequate resources to ensure that some of the challenges are mitigated.

4.3.4.2 Challenges experienced by LwDS

When participants were asked about the difficulties they experience when learning Vocational Skills, they responded that they face the problem of having work repeated several times. They explained them at times they get discouraged because teachers repeat the same lessons over and over.

One participant said: “Undo the work, many times, I get sad” (L.2). Another participant said:

I can't manage tying threads as I make doormats and also tying African materials on a sack while making carpets. I give up (L.1).

The above finding gives an impression that challenges faced by LwDS tend to disrupt the learning of LwDS. The results also show the helplessness the learners go through if no one can understand them since they most times cannot express themselves fully.

This finding is not far from Aron (2012) who indicates that most times learners with Disabilities including LwDS tend to lag because sometimes they can't do things that are of a higher level. They tend to give up or drop out of school. Aron further adds that sometimes the methods used are so complex depending on the teacher teaching the Vocational Skill. Marshak et al., (2010) similarly observe that difficulties faced by learners with disability including LwDS are that sometimes they don't know what suits them because they can't express themselves when the lesson is on. So, teachers give what they feel is a skill though complicated and as a result, they sulk and fail to do the work.

The nature of the difficulties LwDS experience could be associated with the nature of disability they have. It is therefore the responsibility of the teachers to ensure that they use all the possible methods and techniques to enhance the acquisition of appropriate Vocational Skills needed by individual LwDS.

Having presented and discussed the findings, in the next section, the focus will be on summary, conclusions and recommendations.

CHAPTER FIVE

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction

This chapter presents the summary, Conclusion and recommendations as well as suggestions for further researches. It has been guided by the research objectives including; Vocational Skills taught to LwDS, how Vocational skills are taught to LwDS, educational resources used in teaching Vocational Skills and the challenges experienced in teaching Vocational skills to LwDS.

5.2 Summary of the findings

Based on the presentation and discussion, the findings are summarized as below:

The study findings revealed that jewellery is the most taught Vocational Skill taught to LwDS. Besides, the findings also show that recycling and sewing skills are as well taught to LwDS though limited.

Secondly, the study findings indicated that teachers use mostly scaffolding and demonstration as methods to teach Vocational skills to LwDS in the school. Whereas there are several techniques that available to teach LwDS, the study findings revealed that teachers use the one-on-one technique to teach Vocational Skills to LwDS in the school.

The findings of the study indicated that the available educational resources used to teach Vocational Skills are a handful of equipment such as moulds, sewing machines. The findings also revealed that most of the consumable materials used in teaching Vocational skills to LwDS are either locally sourced from the environment or procured from the nearby markets.

5.3 Conclusion

Having presented, interpreted and discussed the findings of the study, it is, therefore, concluded that:

The Vocational Skills taught to LwDS in schools are basic vocational skills i.e., no sophisticated vocational skills are being taught to LwDS in schools.

Whereas there are numerous methods and techniques that can be used to teach Vocational Skills, teachers are limited in selecting the most appropriate ones to teach LwDS, leaving most of them gambling with the little knowledge learnt about art and craft.

Whereas there are a variety of educational resources that can be used to teach Vocational Skills to LwDS, schools are grappling with insufficient educational resources to teach Vocational Skills to LwDS.

The most outstanding challenges encountered in the provision of Vocational Skills are lack of sufficient training of teachers and inadequate resources.

5.4 Recommendations

Based on the findings and conclusions, it is therefore recommended that:

MoES needs to consider designing and developing a tailor-made or specific vocational skills curriculum for LwDS which the teachers should follow so that they can have a variety of Vocational Skills to select from for their LwDS.

Teachers need if possible, to undergo in-service training courses to equip them with knowledge and skills of assessing, planning and selecting appropriate Vocational Skills and subsequently teach such skills without any difficulties to LwDS in schools.

The involvement of other stakeholders in the mobilization, and utilization of Educational resources in terms of equipment and other materials is paramount to make the provision of Vocational Skills to LwDS more effective.

There is a need for early identification of potentials and training of LwDS other than procrastinating it to moments when they are so discouraged to involve themselves in the learning of vocational skills.

There is a need to Establish how learners with LwDS have successfully progressed in the vocational skills learnt in the field.

5.5 Suggestions

Basing on the results and recommendations, the study hereby suggests that:

Research on “Parental involvements in the teaching of vocational skills” be conducted to ascertain their relevance in the provision of Vocational skills to LwDS.

A study should be carried out on training teachers in teaching Vocational Skills to learners with disabilities including LwDS.

A detailed study should be carried to look into teachers’ attitudes towards the use of instructional resources in the teaching of learners with LwDS.

Another study on the relevance of Vocational Skills to LwDS in the schools in Uganda should be carried.

Another study could be carried out to find new ways of helping learners with LwDS in sheltered workshops and not necessarily in the classrooms because of their age and ability.

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Appendix i:

KYAMBOGO UNIVERSITY

FACULTY OF SPECIAL NEEDS AND REHABILITATION

DEPARTMENT OF SPECIAL NEEDS STUDIES.

Interview Guide for Teachers.

Loukae Rebecca is a student in above mentioned University, taking a Master degree in special needs Education. I am conducting a research on Provision of vocational skills to learners with Down syndrome.

A) Vocational skills taught to learners with Down syndrome.

1) State the vocational skills to learners with Down syndrome?.....
.....

2) What Vocational skills do you teach for LwDS.....
.....

B) How vocational skills are taught to LwDS

1) Which methods do you use to teach vocational skills to LwDS?.....
.....

2) Which specific technique do you use when teaching vocational skills to LwDS?.....
.....

C) Resources used for teaching vocational skills to LwDS

1) What type of equipment do you use for teaching vocational skills to LwDS?.....
.....

2) Which other materials do you use in teaching Vocational skills to LwDS?.....
.....

3) How suitable are the above materials while teaching Vocational skills to LwDS?

.....

D) Challenges faced in teaching vocational skills to LWDS

1) What are the difficulties faced in teaching vocational skills to LwDS?.....

.....

2) Why is it that teachers get difficulties in teaching vocational skills to LwDS?.....

.....

3) How do teachers address the difficulties they face as they teach vocational skills to LwDS?

THANK YOU FOR YOUR COOPERATION

Appendix ii:

KYAMBOGO UNIVERSITY

FACULTY OF SPECIAL NEEDS AND REHABILITATION

DEPARTMENT OF SPECIAL NEEDS STUDIES.

Interview Guide for Learners with Down’s Syndrome (LwDS).

Loukae Rebecca is a student in above mentioned University taking a Master degree in Special Needs Education. I am researching the Provision of vocational skills to learners with Down syndrome.

A) Vocational skills taught to LwDS

1. What vocational skills do you learn in school?.....
.....

B) How LwDS are taught Vocational Skills

1. How do you learn to make items using your hands at school?.....
.....

C) Educational Resources used in learning vocational Skills by LwDS.

1. What material do you use as you learn vocational skills?.....
.....

D) Challenges faced in learning Vocational skills by LwDS

1. What difficulties do you experience while learning vocational skills at school?.....
.....

2. Why do you find it difficult to cope with learning vocational skills in schools?.....
.....

3. How do teachers help you to overcome the difficulties as learn vocational skills?.....
.....

THANK YOU FOR YOUR ANSWERS

Appendix iii:

Introductory letter


KYAMBOGO UNIVERSITY
FACULTY OF SPECIAL NEEDS AND REHABILITATION
P. O. BOX 6478 KAMPALA
Tel: 041-286237/285001 Fax: 041-220464
Department of Special Needs Studies

31st October 2020

To Whom it May Concern

Dear Sir/Madam

Subject: INTRODUCTORY LETTER FOR SR. LOUKAE REBECCA REG. No 18/U/GMSN/19460/PD

The above mentioned is a student in the Department of Special Needs Studies. She is registered to pursue a study programme leading to the award of a Master of Special Needs Education. As part of the award requirements, She is expected to carry out research in the area of special needs and inclusive education and submit a thesis.

The purpose of this letter, therefore, is to introduce her to you and to request you to support her in the process of data collection.

Thank you in advance.

Thank you,

Signt
Dr Okwaput Stackus
HEAD OF DEPARTMENT

31 OCT 2020

Accepted

Amus

23/10/2020



Appendix iv:

Consent Form

Dear participants,

I am a student of Kyambogo pursuing a master's degree in special needs education. I am carrying out a Research study on "provision of vocational skills for learners with Down syndrome". It's hoped that the finding of this study will Shed light on the implementation and effectiveness of teaching vocational skills of the learners with Down syndrome, and provide information to Ministry of Education and Sports as well other stakeholders, policymakers on how to plan, develop, formulate suitable ways on how to handle vocational skills in primary schools for learners with disability in the country.

You have been cited as one of the participants who can avail information needed for this study through interviews. The interviews will be focused on types of vocational skills, methods used, resources available and the challenges faced in teaching vocational skills. The interviews will probably take 30-40 minutes. The purpose of this letter is to request for your involvement in this study. Whatever you contribute to this study will only be treated for academic purposes and it will be confidential. Where you don't feel comfortable you are free to withdraw participation. Thank for you support and cooperation in advance.

Yours sincerely

LOUKAE REBECCA,

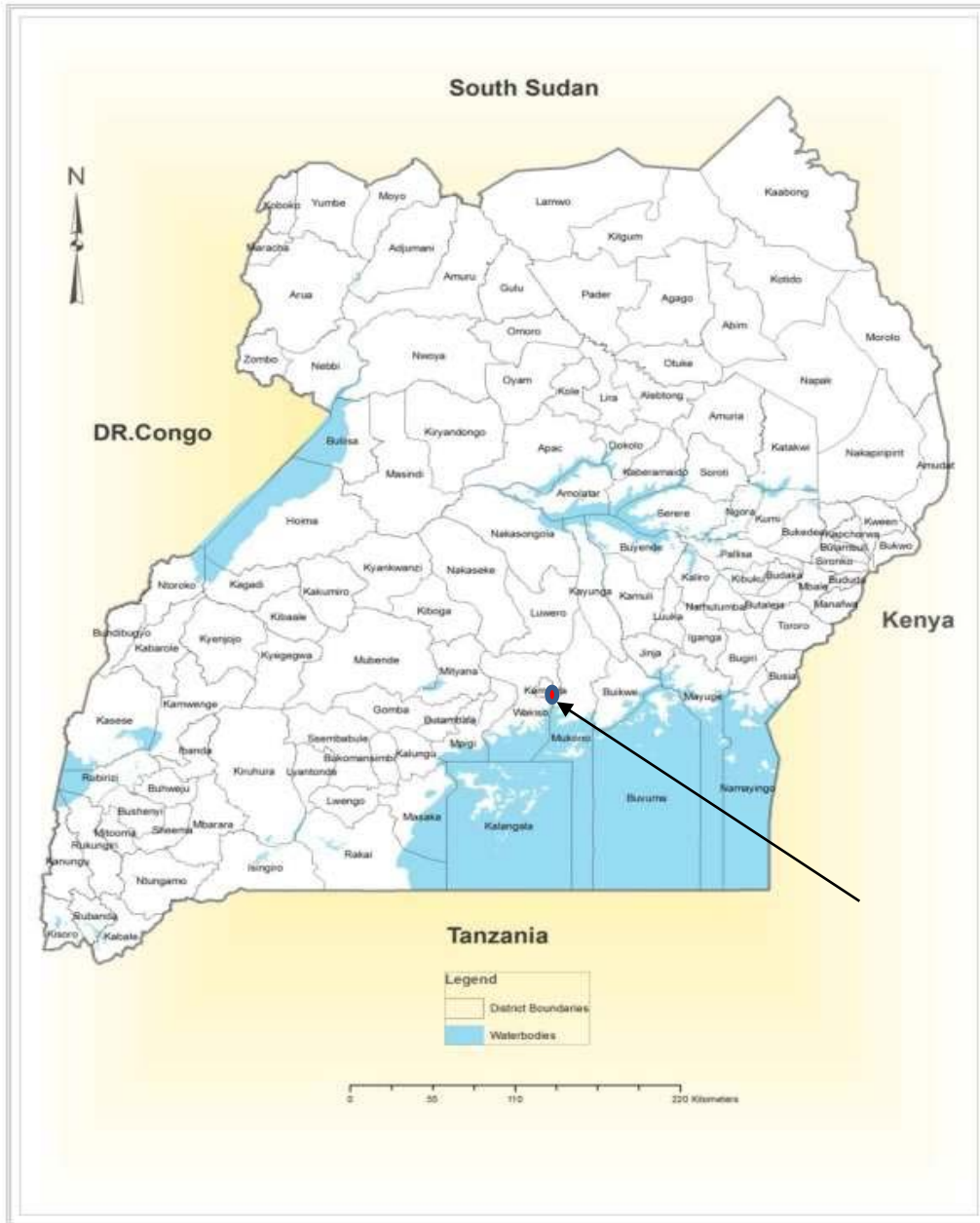
Confirmation of acceptance,

I have read and understood the purpose of the study and I hereby consent to participate.

Signature.....Date.....

Appendix vi:

MAP OF UGANDA SHOWING NAKAWA DIVISION.



● Nakawa division.

Area of study

Appendix vii:

MAP OF NAKAWA DIVISION.



Key.

Area of Study