# FACTORS INFLUENCING THE DEVELOPMENT OF UGANDAN SIGN LANGUAGE IN THE LEARNING ENVIRONMENT:

## A CASE STUDY OF UGANDA SCHOOL FOR THE DEAF

## KAMPALA CITY

BY

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# DECLARATION

I Jackie Akoth, hereby declare that this is my original research work. It has never been submitted to any University or Higher Institution of learning for the award of a Master's Degree or any other qualification.

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# APPROVAL

I hereby acknowledge that this research dissertation entitled "Factors influencing the development of Ugandan Sign Language in the learning environment: A case study of Uganda school for the Deaf in Kampala city. This research work has been under our supervision and it's now ready for submission to the Board of Examiners for the award of Master's Degree in Special Needs Education of Kyambogo University.

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## DEDICATION

I dedicate this piece of work to my dear parents Mr. Wandera David and Mrs. Wandera Sylvia for having raised me and instilling in me good morals to be a God-fearing person which have enabled me to reach this level.

# ACKNOWLEDGEMENT

# ABSTRACT

The purpose of this study was to investigate factors influencing the development of UgSL in the learning environment: A case study of Uganda School for the Deaf, Kampala City. The study was based on three objectives that were; identify environmental aspects that support the development of UgSL, find out features in the learning environment that hinder the development of UgSL and examine strategies of improving the development of UgSL. The researcher purposively sampled 9 hearing teachers, 3 Deaf teachers, 4 hearing non–teaching staff, 3 Deaf non-teaching staff, 1 Deaf role model and 10 learners.The study employed the use of a descriptive survey design which describes respondent's characteristics such as opinions, attitudes, believes based on educational or social issues. Questionnaires, observation and interview were used. The researcher employed qualitative Case Study design which involves in-depth investigation of the problem at hand. The transcription of language annotation (ELAN) software was used to identify themes in UgSL videos using frequency tables, and bar graphs. The study was conducted using a descriptive survey design which describes respondent's characteristics such as opinions, attitudes, believes based on educational or social issues. It was found out that the availability of Deaf role models, Parents and Deaf peers influenced the development of UgSL in the learning environment. Based on the findings, the researcher recommends that there is a great need of training hearing teachers, parents, and other relevant stakeholders UgSL to attain fluency.

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# LIST OF ABBREVIATIONS

ASL:            American Sign Language

BSL:            British Sign Language

CRPD:           Convention on the Rights of Persons with Disabilities

DANIDA:         Danish International Development Agency

DCSF:           Department for Children, School and Families

DDL:            Danish Deaf Association

DRMs:           Deaf Role Models

MGDs:           Millennium Development Goals

NGOs:           Non-Governmental Organizations

NUDIPU:         National Union of Disabled Persons of Uganda

PTA:            Parents Teachers Association

SDGs            Sustainable Millennium Development Goals

SL:             Sign Language

UgSL:           Ugandan Sign Language

UN:             United Nations

UNAD:           Uganda National Association of the Deaf

USD:            Uganda School for the Deaf

WFD:            World Federation of the Deaf

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## 1.0 INTRODUCTION

This chapter presents the background of the study, statement of the problem, the purpose of the study, objectives of the study, research questions, significance of the study, limitations of the study, and basic assumptions of the study.

## 1.1   Historical development of Sign Language in Deaf Education

The development of Sign Language in the education of the Deaf is not a recent phenomenon. It can be traced to the history when one or more Deaf persons started using home Signs to communicate with others. Recorded reference to Sign Language (SL) is traced from Greeks when Socrates lived in 469-359 B.C. In his book (Eriksson, 1998: 13-14), Levinson shows how important Greeks thought of the value of Sign Language. St Augustine also made a reference to Sign Language as a mode of communication used to teach Deaf people for Christ. The history of education in many parts of the world was started by the early church (St Augustine 469-359BC) (ibid:18-19).

The origin of SL can be traced to France, to one Abbé Charles de L'Éppé (1760) who is credited with the invention of the French Sign Language in the 16th century. He observed Deaf people in France communicating using Signs, refined the Signs, and adopted them to become Sign Language. From France, the use of SL spread to America and the other parts of Europe. Despite the myths made about SL, the Language is held dear by Deaf people, Abbé:

> *We are confident that any hearing person would agree that if he had no Language of his own he would be different from what he is today and would be cut from other members of society he will not be able to communicate, write and read. Therefore, we appreciate the influence of Sign Language in the lives of Deaf people. (ibid: 19).*

Worldwide, the idea of Language has become the most important topic in the field of most Deaf schools. Researchers Brentari and Coppola (2013) observed the ability of Deaf people to communicate using SL. Learning from most developed countries especially in America there has been a significant trend towards the development of Sign Language in all elementary schools for the Deaf which offer Special Needs Education. According to Power & Leigh, (2011) Special Needs Education is about restructuring school systems involving the adaptation of classrooms, teaching strategies, and provision of SL services to make education accessible to all children including Deaf learners.

Teachers for the Deaf in this case must undergo re-training to acquire the appropriate signing skills (Koutrouba, Vamvakari & Steliou, 2007). Qualified teachers worldwide are key quality towards the education of the Deaf. However, developing countries experience a critical shortage of good teacher educators especially in schools for the Deaf and the learner's academic performance is affected Marschark & Spencer (2010).

Millennium Development Goals (MDGs) adopted by the United Nations in 2000 brought equality in education into focus as stated in MDG goal 2, (UN, 2015; 2016). The progress towards the goal of equality in education has been measured through parameters of access, retention, and school completion rates. This is the basic level of achieving equality. In the Education of Deaf children, Bilingual-bicultural should be taken into consideration to realize quality education of Deaf children. Akach, (2010). According to Magongwa, (2010) Sign language acquisition and Deaf education, the Deaf child to fully integrate into the hearing world, is faced with a particular challenge of adapting to an education system that provides for bilingual education. In such circumstances, SL should ideally feature as the first language or mother tongue as well as the language of instruction.

## 1.2 The concept of Sign Language

SL is a Language used by Deaf persons to communicate with each other and can be traced back to the Greek philosopher Socrates who lived in 469-359

B.C. who pondered how people could communicate if they were not having voice and tongue (Brentari, 2010; Lutalo-Kiingi & De Clerck, 2015; Moores, 2010).

SL is a Language that dictionaries cannot be consulted when checking the definitions of Signs, the origin of Sign, as one would use the English dictionaries Hornby (2010) instead; SL dictionaries are guided on how to Sign a word written in English Johnson, (2003); Wallin et al., (2006) UgSL is the use of modality, modify of grammatical body movement, facial expression including non-manual features while communicating. For example, Signs are used to showing different movements directions like; contact point, single movement, double movement, slow movement, single circular movement, double circular movement, repeat to and from movement, vertical movement, horizontal movement., single up and down movement (Johnston, 2003).

SL is a complex combination of facial expression, mouth/lip reading patterns, hand and body movements, and fingerspelling (Jepsen et al., 2015). There are hundreds of Sign Languages in use around the world; the SL used in Uganda (UgSL) is different from that used in the United States or Kenya for example UgSL uses different Sign order than spoken English and leaves out many words such as articles, the copula, verbal inflections, infinitive forms, pronouns, and prepositions to mention a few. UgSL has a recognized status as one of the official Languages used by Ugandan Deaf people (Lutalo-Kiingi, 2016). The term Deaf in this context is used to refer to persons who have hearing disorders to the extent that they cannot use oral-aural modes of communication with or without sound amplification. Sign Language, therefore, is the first Language for the Deaf (Brentari,2010).

## 1.2.1 Sign Language development around the world

It wasn't until 1960 that linguists began to consider SL a Language separate from spoken Language (Stokoe, 1960). Many linguists believed that SL was a Signed version of the Spoken Language of whichever country a Deaf person lived in; for example, linguists thought that American Sign Language (ASL)

was a Signed version of English (Meir, 2012; Sandler & Lillo-Martin, 2006). However, in the 1960s linguists began to realize that SL has the same aspects that make spoken Language a Language. For instance, SL has its structure, grammar, and each Sign has its meanings that are independent of that of spoken Language. Although it has been almost 60 years since linguists began to consider SL as an independent Language and have its grammatical structure Lule & Wallin, (2010) clarifies that UgSL is the national language and the primary language with its grammar, vocabulary, and special rules of use. Individuals still have the incorrect perception that Signs are just a gesture that represents a spoken word.An easy way to illustrate why this is incorrect is to think of English words that have two different meanings. For instance, the English word *right* has two different meanings. If Sign Language, in this case, American Sign Language (ASL), was a gesture form of English then there would be one Sign for *RIGHT* that is used to convey both of the meanings for the spoken word *right.* However, there is a Sign for each of the meanings of the word *RIGHT* in ASL, just as they are expressed by two different words in other languages.

Even though Deaf children similarly learn Language to that of hearing children (i.e. they create similar errors to that of hearing children) Bellugi (1991), Deaf children often face Language impoverishment, something that most hearing children do not (except in extreme cases). Deaf children who are born to hearing parents often suffer from Language impoverishment due to a lack of Language input during critical periods of development (see Marschark, Schick & Spencer, 2006). Deaf children who have impoverished Language input as young children often show delays in cognitive and achievement domains such as reading skills (Easterbrooks & Beal-Alvarez, 2012). Importantly, cognitive and reading skill delays can be overcome. For example, these findings suggest that promoting factors that improve Language comprehension regardless of whether or not the child is Deaf or hearing also promote reading skills (ibid, 2012).

Studies have found out that Deaf children who learn SL from a young age also go through the same stages of Language acquisition as hearing children (Adoyo, 2007; Bellugi, 1991; Marschark, Schick & Spencer, 2006). Deaf children even make the same errors that hearing children do at or around the same age that they occur in hearing children. This discovery led researchers to look at different aspects that are correlated to Language development in Deaf children and compare them to these correlates in hearing children. These correlates include aspects like cognitive and achievement outcomes such as academic performance, reading competence, speech acquisition, breadth of vocabulary, and theory of mind (the ability to attribute mental states, beliefs, intents, desires, emotions, knowledge, etc to oneself, and others, and to understand that others have beliefs, desires, intentions, and perspectives that are different from one's own) (Marschark & Spencer, 2010). Because Deaf children do not acquire language skills in the traditional way (hearing), prior thought was that Deaf children would have a deficit of these skills as they developed. However, results from research studying Language skills in both hearing and Deaf children illustrate that Deafness does not cause a disparity in the above aspects of Language development and understanding (Kiyaga & Moores, 2003). Like hearing children, economic status, Language enrichment in the home, and early Language exposure are some examples that cause a disparity in Language development in Deaf children. Studies have found that one of the main reasons for these deficits in Deaf children is a lack of early Language exposure, again not the fact that the children are Deaf (Lutalo-Kiingi & De Clerck, 2017; Marschark, Schick & Spencer 2006; Miles, Wapling & Beart, 2011).

## 1.2.2 Ugandan Sign Language

In Uganda, SL has grown and developed into Ugandan Sign Language (UgSL) (Uganda constitution 1995). The Government of Uganda in recognition of SL established schools for the Deaf and the beginning of the first research study conducted in 2000 titled "the descriptive grammar of morphosyntactic

constructions in UgSL" by a Ugandan Deaf linguistic (Lutalo-Kiingi, 2016, 2014) UgSL is a language of the linguistic minority in Uganda. It is also the medium of communication among the Deaf community in Uganda for learners who are Deaf in both pre-school and lower primary levels.

Therefore, there is a need to focus on the educational environment that influences bilingual development in the young generation of SL users. Few hearing teachers have knowledge of UgSL and English (in its spoken, written, or signed form) used as a medium of instruction in the Ugandan education system. The educational settings of Deaf children and young people show a preference for signed English and the use of voice to teach the structure of English (Lule & Wallin, 2010). This was observed at Uganda School for the Deaf as hearing teachers preferred using signed English.

Therefore, there is a negative attitude towards UgSL among some hearing educators and parents of Deaf children. While hearing children acquire Language spontaneously from members of the family and community, those with Deafness come to school without any structured Language skills (Kiyaga & Moores, 2003) It is in Deaf schools that children are taught SL that it enables the learning process to flow smoothly (Meir et al., 2010).

According to Miles, Wapling & Beart (2011) it is noted that the Government's commitment to teacher education, parent involvement, and UgSL development has led to more positive attitudes towards Deaf children and their right to attend school in their communities in Bushenyi District. This is the case at Uganda School for the Deaf (USD) in Ntinda, Kampala city since the school involves Deaf children at pre-school age, their parents.

### 1.2.3 Ugandan Sign Language development
The development of UgSL can be traced from the 1950s when Deaf children and their family members used home signs and gestures to communicate with the hearing people in the community. In the 1980s, up to now most hearing parents, family members, Deaf persons, teachers of Deaf children started

learning UgSL. These programs were conducted by the Uganda National Association of the Deaf (UNAD). In1988, the use of UgSL was accepted in class than total communication (Lutalo-Kiingi, 2014; Wallin et al., 2006).

UNAD was founded as a charity organization in 1973 by Deaf people so that they could serve as role models for other Deaf people (UNAD without a year). The secretariat was established in 1992 when the objectives of advocacy and human rights for Deaf people in Uganda were instituted. UNAD is now a member of the World Federation of the Deaf (WFD) and they work in partnership with the National Union of Disabled Persons of Uganda (NUDIPU) and other Non-government Organizations' (NGOs) to look after the interests of Deaf people (Lutalo-Kiingi, 2014).

From 1992-2005 the Danish Deaf Association (DDL) in conjunction with the Danish International Development Agency DANIDA part of the government of Denmark funded many Sign Language and Deaf-related projects in support of UNAD. In total, DDL supported the UNAD project for thirteen years. Seven regional Deaf Associations were established by UNAD in 2003 to serve the wider Districts in Uganda. The training was provided for the Association leaders to enable them to go and work in the communities and provide much-needed activities for the local population of Deaf people. This was a positive step forward towards the empowerment of Deaf people in rural settings. The leaders also served to highlight the needs and rights of the local Deaf community to the Local Council (Wallin et al, 2006: 9).

Some of the main remits of UNAD are to provide an advocacy service and also lobby the government to acknowledge the rights of Deaf people to have their UgSL. The constitution provides for the promotion and development of SL for the Deaf (1995 Uganda constitution XXIVI).

The parliamentary elections statute provides for the use of SL where applicable (Ministry of Gender, Labor and Social Development 2006: 9). This

means that Deaf learners have a right to use UgSL as their means of communication and as a way of accessing information.

## 1.2.4 Influences on the development of Ugandan Sign Language

UgSL is not based on nor is it derived from any of the numerous local spoken Languages and foreign Sign Languages used in Uganda (Wallin et al., 2006:11). UgSL began to advance and develop when Deaf children were brought together in Deaf schools in 1961. UgSL was influenced by British Sign Language (BSL) due to English tutors working in one of the schools. For example, in 1987 a hearing volunteer from England was sent to work at the Uganda School for the Deaf (USD) in Ntinda, Kampala City. Although she learned some UgSL, her teaching was strongly BSL-based (Wallin et al., 2006: 25). There was also influence from American Sign Language (ASL) on UgSL in the 1980s when an influential Deaf man returned to Uganda after working in Nigeria for a bible college; he had learned ASL, the predominant Language within the college, which was seen by some in Uganda to have a higher status than UgSL (Nyst, 1999: 17) consequently, there came to be a clear influence of ASL in the UgSL of some Deaf Ugandan adults, in addition to the strong influence of BSL already present (Nyst & Baker, 2003: 71 in Lutalo-Kiingi, 2008).

UgSL was recognized as an official language in the 1995 national constitution of Uganda as cultural objective XXI(c). This resulted in many positive implications for the education of Deaf children and for interpreting services for Deaf people in Uganda, and in 1995 the country was "one of the leading countries in the development of its SL in Africa" (Nyst, 1999: 17). Some Deaf students accessed education in the neighboring country of Kenya where they learned Kenyan Sign Language (KSL). However, with the introduction of Universal Primary Education (UPE), the increased number of Deaf children who lacked placement in secondary and vocational education after completing primary cycled to the recently established government-aided residential secondary schools for Deaf young people. The two Deaf secondary schools

established at Wakiso in 2006 and Mbale in 2007 are the first schools to be built by the government since 1959 when the education of the Deaf commenced in the country (Lutalo-Kiingi, 2008).

In 2006, Deaf people from different regions of Uganda formed a petition and along with UNAD marched to parliament to demand that UgSL policy of UNAD, including access to SL interpreters, education of Deaf people be considered by the Ugandan government (Oluoch, 2006: 2 in Lutalo-Kiingi, 2007:19).

## 1.2.5 Deaf Education in Uganda

In 1959 the Ugandan society for the Deaf established the first Ugandan school for the Deaf in Namirembe, Kampala (UNAD n,d pg.14 in Lutalo-Kiingi, 2014: 33). Uganda's first teacher of the Deaf was Mrs. Julian Lule, a hearing woman with two Deaf children (Krarup, 1998:4 in Lutalo-Kiingi, 2008:105). The school originally had 10 Deaf pupils. Funds were provided by the Kabaka (King), Sir Edward Muteesa from the Buganda Kingdom office in Mengo, Kampala City. When the school's original building could no longer cater to the class size, the Anglican Church of Uganda in Kampala donated some of their land on which to build a bigger school. The school is a government-aided primary school bringing together all categories of Deaf children including Deaf children with multiple Disabilities. Currently, the school has classes from Nursery to Primary seven. The school enrolment as of 2019 is 203; 86 boys and 117 girls. It has a teaching staff of 12 and a non-teaching staff of 15.

In the past, the starting age for Ugandan school children was never given; Deaf children started school at any age up to eight or nine years. Children remained in primary education for approximately four years up to the lower primary (4) class. Most could not attend further nor access Higher Education due to lack of funds in their families, and they had to return home. If they were fortunate enough, they could continue with vocational pieces of training that were available for both boys and girls in Kenya.

In 2000-2019 Ugandan Deaf children were able to take Primary Leaving Examinations (PLE), which is a nationally recognized certificate where none got the First grade but the majority passed in Second and Third Division. Those children who fail examinations are sent to different schools where they are taught practical skills such as woodwork for the boys and needlework for the girls. The PLE program was only offered in one school, that's Uganda school for the Deaf in Ntinda, Kampala City. Although there had been the establishment of different schools for the Deaf in Uganda, it was only from this school that Deaf children were able to access education to the same level as their hearing counterparts (Wallin et al., 2006:7).

In Uganda children start school when they are five years old; however, there is some provision for pre-school. For Deaf children, it is different as they go to school one year earlier than their hearing counterparts, usually at the age of three or four. This extra year is built into their education so that they can learn UgSL. Having started earlier than their hearing counterparts, Deaf children are more prepared to attend school at five. UgSL training programs conducted by Deaf instructors (models) at Uganda School for the Deaf include Parents of Deaf children every Wednesday with their Deaf infants, interested hearing people, and service providers weekly.

The teaching of Deaf children in Uganda has followed the oralist tradition since the first Deaf children were taught in 1961. Only over the last twenty years, is whenSL has been introduced into the classroom (Supalla et al., 1993: 50 in Wallin et al., 2006: 7). This has been the result of a policy from one school that all children who are diagnosed with hearing loss and whose parents wish them to attend the Ugandan school for the Deaf in Kampala City can have a session along with their parents in UgSL for at least one hour per week. The classroom Language in some schools is a mixture of spoken English and UgSL, i.e. children are educated in Sign supported English, using a policy framework of Total communication (McLaughlin & Talbert, 2006). Uganda's educational Language Policy has not yet advanced enough to enable bilingual education for Deaf children in all Schools, although

personal experience suggests that in a few Schools there are hearing teachers with sufficient fluency in their UgSL skills to enable them to teach bilingually. The complexity of Deaf education in Uganda is further compounded by the government philosophy of inclusion, resulting in many Deaf children being educated in mainstream schools such as Walukuba Primary School in Jinja employs Deaf models and UgSL interpreters to help Deaf learners during the learning process whereas special schools like Uganda school for the Deaf have no UgSL interpreters during classroom instructions. According to Stinson & Antia, (1999) clarifies that SL interpreters are utilized in such settings to enable the child to access the school Language where a Deaf child is educated in a school that adheres to the" local Language policy", introduced in 2007 by Tembe & Norton, (2008), the local mother tongue is permitted and this includes UgSL Lutalo-Kiingi, (2007). In this case, Deaf adults are employed in teaching and supporting roles to serve as Language models for Deaf children.

## 1.3 Statement of the problem

SL development in the learning environment is fostered through the use of purposeful, deliberate conversation between teachers and students. However, Deaf learners usually have barriers in communicating with hearing teachers and non-teaching staff in the learning environment. Hearing teachers and support staff have limited competency and proficiency in UgSL. They lack knowledge in linguistics and Deaf culture thus prefer using Signed English to UgSL as an instructional order therefore Deaf learners end up confused about language. Consequently, Deaf children are not exposed to the bilingual approach which targets UgSL as the first language or mother tongue and later English as a second language. Finally, this leads to a lack of competency in UgSL which affects learning the second language such as English and literacy skills which is the prevailing situation at Uganda School for the Deaf.

## 1.4 Purpose of the study

To investigate factors influencing the development of UgSL in the learning environment: A case study of Uganda School for the Deaf, Kampala City.

## 1.5 Objectives of the study

The following objectives were used to guide the study.

The study sought:

i.   To identify environmental aspects that support the development of UgSL.
ii.  To identify features in the learning environment that hinders the development of UgSL.
iii. To examine strategies for improving the development of UgSL.

## 1.6 Research questions

i.   Which environmental aspects support the development of UgSL in a learning environment?
ii.  What are the identified factors in the learning environment hindering the development of UgSL?
iii. What are the possible strategies for improving the development of UgSL in the learning environment?

## 1.7 Scope of the study

The study was carried out in Kampala City. The study focused on only one primary school for the Deaf located in Ntinda, Nakawa Division in Kampala City.

## 1.8 Significance of the study

The significance of studying the development of UgSL in the learning environment included;

1. The study provided useful information to the Ministry of Education and Sports educational policy planners on ways and the development of UgSL bilingualism in Deaf education as an instructional method of teaching in the classroom.

2. The findings formed a basis for the literacy development of UgSL for all Deaf learners.

3. The Community and Institutions charged with the responsibility of training teachers may use the study in understanding the situation of UgSL in schools and facilitate any necessary changes.

4. Finally, the study could also be used to provide empirical evidence to other researchers who may want to research in the future on factors influencing the development of UgSL.

## 1.9 Limitations of the study

In this study, the researcher did not have control over hearing teacher's unwillingness to respond to some questions (interviewees).

The researcher was not aware that some Deaf models in the preschool section did not understand English and they did not open either about it so they pretended to be busy limiting data collection from them.

Though Deaf learners signed clearly, they couldn't give direct feedback to some of the questions because they didn't have enough knowledge on communication skills

Also, the researcher encountered problems with some hearing teacher's unwillingness to be observed teaching in the classroom. However, the researcher assured the respondents that the video data collection was to be used for academic purposes only and with the utmost confidentiality.

# CHAPTER TWO

## LITERATURE REVIEW

### 2.0 INTRODUCTION

This chapter presents the conceptual and theoretical framework in the first section. Then literature is reviewed concerning objectives as environmental aspects and the development of UgSL which includes Deaf models, parents, peers, and teachers. The second section of the objective highlights what hinders the development of UgSL in detail about parents' attitudes, lack of Deaf models, hearing teacher's UgSL proficiency, and non-teaching staff. While the last section of the objective suggests strategies to improve on the development of UgSL in the learning environment with detailed information on the UgSL curriculum, teaching with Children and parents, co-working hearing and Deaf teachers

### 2.1 Conceptual Framework

The study was based on the factors influencing the development of UgSL in the learning environment given that all variables are manipulated adequately. The conceptual framework shows the effect of independent variables on dependent variables thus the presence of home signs could lead to enhanced development of UgSL while the absence of home signs could impede the development of UgSL in teaching (Morgan & Kegl, 2006; Senghas & Coppola, 2001). The main variables under study are reflected in Figure 2.1 below.

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┌─────────────────────┐      ┌─────────────────────┐      ┌─────────────────────┐
│ Independent         │      │ Dependent           │      │ Effective  use  of  │
│ variable            │      │ variable            │      │ UgSL                │
│                     │      │                     │      │                     │
│ Language            │      │ Language process    │      │  ➢ Comprehensiv    │
│ acquisition         │─────▶│                     │─────▶│    e linguistic    │
│                     │      │   ➢ Teachers       │      │    skills.         │
│   ➢ Home sign      │      │   ➢ Peers          │      │  ➢ Academic        │
│   ➢ Ug SL          │      │   ➢ Support services│      │    performance     │
│                     │      │                     │      │    in bilingual;   │
│                     │      │                     │      │    UgSL and        │
│                     │      │                     │      │    English         │
└─────────────────────┘      └─────────────────────┘      └─────────────────────┘
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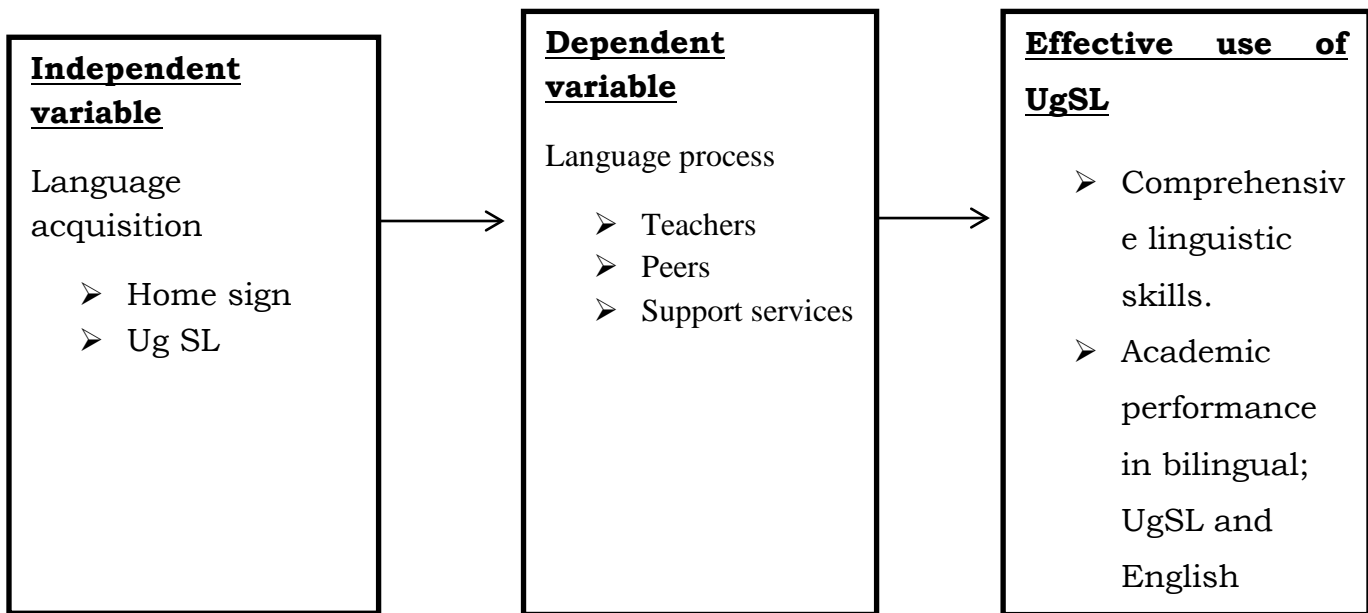
Figure 2.1: Conceptual framework

SOURCE: Lutalo-Kiingi & de Clerck, 2015; Senghas & Coppola, 2001.

## 2.2 Theoretical Framework

The study was guided by Sarah Harkness's theory on the social environment and first Language acquisition in rural Africa of 1977. This theory emphasis; everyone has an inborn faculty for first Language acquisition, at birth children already have brains whose neural circuits have linguistics information, if nurtured well first Language acquisition and use are realized within the shortest time expected. The first language is a local Ugandan language such as Luganda (Kiingi, 1997; Tembe & Norton, 2008). This theory on the social environment by Zastrow and Krist-Ashman (2007) also emphasizes that children think in their first language; therefore, they should be exposed to rich environments that enhance their sign Language early in life (Senghas & Coppola, 2001). Therefore, the Bilingual approach in Deaf education promotes recognition of UgSL as the first language is important since information and knowledge about daily life in the world news are passed onto Deaf learners. If a hearing teacher explains using UgSL about any topic such as English

literacy, then children can understand because they already have a language. This theory advocate for use of SL which is the first Language for learners who are Deaf. The second language of Deaf learners in English and some are familiar with other local languages. When entering school, the children are taught the UgSL which is a national and common Language used by Deaf and hearing people who have learned it Lutalo-Kiingi & De Clerck, (2015).

## 2.3 Environmental aspects that support the development of UgSL

## 2.3.1 Deaf role models

Deaf Children acquires UgSL through full immersion and communication between language users in actual conversations and classroom environments thus language development. When a Deaf child is enrolled in a Deaf school he/she starts to learn with peers and from Deaf models thus changing from rural gestures to UgSL (Lutalo-Kiingi, 2016). Hearing teachers at Uganda School for the Deaf though have UgSL skills they lack competency and fluency. This is due to the current situation of transferring most hearing teachers skilled in UgSL and replacing them with hearing teachers who have limited knowledge of UgSL. Therefore, the school appointed Deaf sign language users as role models working as teaching and support services (non-teaching) staff like Matrons, Vocational, Tailoring and Carpentry and preschool instructors (Magongwa, 2010). From the researcher's observation adult Deaf role models in all sections and the early learning classwork along with hearing teachers. This agrees with Knoors and Marschark (2014) who affirms that bringing in sign language models such as fluently signing Deaf professionals would be a way to work around this problem of attaining language proficiency, and is one strongly advocated by Deaf scholars. This is important for Deaf learners whose option is to attain language proficiency is through early input of sign language (Magongwa, 2010).

### 2.3.2 Parents

The social-environmental conditions are important in language development when parents know UgSL (Miles, Wapling & Beart, 2011). As the case for Uganda school for the Deaf, most parents and their Deaf children on specified days have UgSL program weekly in the company of their preschool going Deaf children. Therefore, as the child develops sign language he/she is in a position to have social interaction with the parent resulting in language development because most Deaf children are born to hearing parents (Senghas & Coppola, 2001). As noted by Knoors and Marshack, (2014) cited in Kuhl, 2004) children do not acquire their native language by only watching television but rather through close interactions and communications with their parents. Many develop a gestural home sign system as a means of interactive communication with family members (Lule & Wallin, 2010).

Language plays a continuing and expanding role in early social interaction through open communication and child's behaviors of caregivers, Signed and spoken communication is equivalent in their potential to supply all of the information and experience for normal social development, that equivalence requires that parents be competent in language users in whatever modes are most accessible to their child. One way in which hearing parents can gain language skills they need is through early intervention programs, such programs include communication instruction for both children and parents in SL (Brentari & Coppola, 2013; Knoors & Marschark, 2014; Marschark, & Hauser, 2012).

In Uganda, Deaf children learn home signs or gestures from family members and the general hearing community. According to Miles, Wapling & Beart, (2011) argue that children do not acquire language fully from interaction and communication alone, specific aspects of grammar and the use of language for literacy have to be learned at school through explicit teaching. The ability to read and write contributes to language development because reading and writing enhance vocabulary and knowledge of complex syntax in children and adolescents (Meir et al., 2010). The basics of one's

native language are acquired through interaction and communication with parents at home, but language and literacy teaching is required to support higher older skills. (Easterbrooks & Beal-Alvarez, 2012). Deaf Children who have better relationships between mother-infant attachment and later social behavior, children who have better relationships and better communication with their mothers or other primary caregivers also tend to be those who develop good social relations with peers and higher self-esteem (Luft, 2017; Spencer, Erting & Marschark, 2000).

### 2.3.3 Deaf peers

The successful development of UgSL depends on the learner's interactions with peers when playing in the school's compound with peers (Luft, 2017), which defines the school's environment as a place for socialization that includes the buildings, surrounding grounds, and children. It encompasses conditions such as cleanliness, noise, temperature, and lighting as well as biological, chemical, and structural hazards. The learning environment is a key factor for learners who are Deaf in the development of SL. Children's social behavior with peers as well as their emotional stability is affected by the quality of a parent-child relationship. For example, over protecting behaviors on the part of parents are likely to affect their Deaf children's interactions with peers and other adults. As compared to hearing age-mates' young Deaf children are likely to have fewer other children with whom to interact socially. Early intervention programs are helpful in this regard as Deaf children are exposed to more diversity in social and communicative interactions in those settings. Older Deaf children use more language communication with other Deaf children indicating that they have developed cognitive skills (Emmorey, Giezen & Gollan, 2016).

Furthermore, when one looks at children enrolled in early intervention programs involving sign language instruction, they tend to show more cooperative play with peers (Cornelius & Hornett, 1990 as cited in Knoors & Marschark 2014). At Uganda school for the Deaf, it was observed that Deaf

peers share information using UgSL with their peers especially during extra-curricular activities such as Physical Education (PE) and sports in the learning environment.

## 2.3.4 Hearing teachers

Teaching styles and high quality of education depends on the quality of the human resource available such as Special Needs teachers (Ainscow, 2004). According to Miles & Singal, (2010) Education must offer an instrument of change and development and not only focus on the availability of teachers. The teacher's factor is important as a basis for academic achievement (Luft, 2007).

Teacher's academic and professional prerequisite to the mastery of Sign Language that contributes to the nature of pupil's performance; citing inadequate efficient use of Sign Language in teaching methods as good setup reflection of teacher's professional qualification (Leigh & Crowe, 2020; Power & Leigh, 2011). Teachers must master UgSL Structure before she/he develops Signing Skills that will be used at all times for proper learning to take place in the classroom. UgSL therefore plays a pivotal role that affects all activities in the school (Adoyo, 2007).

The experience of using a range of teaching/learning resources and related equipment, supplies, furniture, and various forms of printed media for teachers are critical in facilitating the process of learning worldwide (Ainscow, 2004). These resources include hearing aids that offer services to teachers to enrich their teaching however the resources are expensive and need a replacement. The high expenditure incurred on repair can be cut down by training teachers on how to use maintain the equipment with proper instructions to learners on how to use them.

Kola-Olusanya*, (2005) argues that attitude is a predisposition or a tendency to respond positively or negatively towards a certain idea, object, person, or situation. Teachers are instrumental to the successful implementation of Sign

Language in schools for the Deaf. Teacher's abilities attitudes can be major limitations to learner's academic performance. Teacher's attitudes that do not promote the use of UgSL are fear, limited expectations, and lack of signing skills. Teacher's unfamiliarity with a disability often results in poor academic performance in the classroom.

Therefore, sensitivity and awareness on the part of the teacher in a school is essential towards the development of UgSL (Knoors & Marschark, (2014). In Kenya, most teachers for the Deaf in the field of Special Needs Education have the misconceived idea that using KSL as a medium of instruction in schools would interfere with the learner's academic development Mweri, (2014). Studies have shown that, if a hearing teacher has low expectations towards Deaf learners then the hearing children will unlikely receive satisfactory education (Adoyo, 2007).

## 2.4 The learning environment that hinders the development of UgSL

Despite the understanding that Sign Language development has strong positive and lasting effects on the child's academic achievement, it is surprisingly evident that several potential troublesome issues hinder the development of UgSL in the learning environment (Moores, 2010).

Brentari & Coppola (2013) maintains that if the school environment is unfriendly, hence de-motivating learners from attending school. The school environment at Uganda School for the Deaf comprises teachers and caretakers. Some of the house Matrons according to my interaction with Deaf children revealed that they use more speech and fewer signs. Therefore, this hinders sign language development in Deaf children.

Furthermore, the internal dimensions of the school as an environment are not to assume that the school is solely responsible for influencing the process of learning and language development but that it is the departure point of interaction between the teachers, caretakers, and Deaf learners. Secondly, rather than focusing solely on the school, attention is drawn to the

interplay between what takes place within the school and within the teacher education that influences how academic and social participation is facilitated.

It is at school that the child with Deafness has to expand on their receptive and expressive sign language and eventually the written form of communication to facilitate their social relationships with others. The family and the school should socially nurture and linguistically support the child with Deafness to ensure that the child with Deafness copes with the school environment (Brentari & Coppola, 2013; Kola-Olusanya*, 2005).

## 2.4.1 Parents attitude

Many parents learn UgSL but will rarely gain fluency compared to hearing parents with their hearing children. According to Luft, (2017) in his study on parental involvement discovered that parents will only become involved in their children's education if they feel that they are capable, knowledgeable and if the teacher encourages their participation (Marschark & Hauser, 2012). However, Luft, (2017) pointed out that some teachers perceive minority parents as not having time, interest, money, or energy to support classroom learning.

A study carried out by Knoors & Marschark, (2014) found out that most Mexican-American parents believe that educating children is solely the responsibility of the schools and do think that it is not proper to intervene in a teachers' professional duties. He noted further that some parents' limited education creates serious barriers to communicate with their children. The parents of children with Disabilities including those with Deaf children develop 'chronic sorrow' characterised by periodic recurrence of sadness, guilt, shock, and pain. They are plagued by feelings of pessimism, hostility, and shame, Denial, projection of blame, guilt, grief, withdrawal, rejection, and acceptance are some of the usual parental reactions. Some parents also experience helplessness, feelings of inadequacy, anger, shock, and guilt, whereas others go through periods of disbelief, depression, and self-blame. The siblings also experience feelings of guilt, shame, and embarrassment.

While existing literature has focused on family impact and stressors involved in taking care of Deaf children, the current study explores the development of UgSL towards the teaching of Deaf learners.

Similarly, Miles, Wapling & Beart, (2011) assert that some parents of Deaf children are not interested in the welfare of their children and fail to provide them with adequate care. Alternatively, they may be overly protective. Both can be problematic for the child and their teacher. Disinterested parents may not be involved with their child's education or interaction with their teachers, whereas overprotective parents may have unrealistic expectations of the child and the child's teachers. Both attitudes can shape children in negative ways. Parental dis-interest may make Deaf children unmotivated. Overprotective parents often diminish their children's confidence and make it harder for them to learn (Senghas & Coppola, 2001).

In addition to that, poverty is a barrier to schooling though every child has the right to basic education. In Uganda, over the last decades' government announced the introduction of Universal Primary Education (UPE) in 1997 saw an impressive increase in the number of children going to school (Lule & Wallin, 2010). However, parents still find it difficult to support the education of their children who are Deaf and this explains why it's a hindrance because many schools that offer special education for such children are few and on top of that they are expensive (Miles & Singal, 2010).

According to Luft, (2017), one of the hindrances associated with UgSL in the education of children is the lack of communication between parents and Deaf children. Open communication and coordinated planning between general education teachers and special education staff are essential for inclusion to work. Time is needed for teachers and specialists to meet and create well-constructed plans to identify and implement modifications, accommodations, and specific goals for individual learners. Collaboration must also exist among teachers, staff, and parents to meet the learner's needs and facilitate learning at home.

Parents of Deaf learner's lack knowledge and skills on early childhood intervention, this is because some children are born with Deafness but due to lack of early intervention by their parents, they don't develop communication skills thus a hindrance to their learning (Lutalo-Kiingi, 2014).

## 2.4.2 Un-involvement of parents with Deaf role models

Most parents of Deaf children have no link with Deaf models or they are unaware of successful Deaf individuals. Therefore, they feel demotivated to learn UgSL to encourage their Deaf children (Magongwa, 2010). According to Luft, (2017) argues that parents of Deaf learner's lack role models to encourage them to develop high self-esteem and hopes in the education of their children, and as a result, they end up dropping out of school.

According to Pfau, Steinbach & Woll, (2012) further clarify that deaf adults working as Deaf role models (DRMs) (sometimes referred to as 'Deaf mentors') with families and Deaf young people is a growing trend. The 2007 position statement of the Joint Committee on Infant Hearing in the USA specifically recommends that 'Deaf adults should be involved in all Early Hearing Detection and Intervention programs, as they can 'enrich the family's experience by serving as mentors and DRMs. The researcher agrees with the author because some parents have been inspired and motivated by the achievements of DRMs in life thus end up encouraging their Deaf children to aim higher.

## 2.4.3 Hearing teacher's UgSL proficiency

Teacher qualification is a technique that is widely accepted. Problems that lead to poor quality education persist because of the shortage of both qualified and properly trained teachers in UgSL. This has impacted negatively the academic achievement of the learners Right to Education (Akach, 2010). Earlier, teachers without proper academic qualifications and professional training failed to do justice to their subjects. High qualifications develop self-confidence in the teacher who in turn serves as a source of inspiration to his/her pupils.

Furthermore, a teacher should possess theoretical knowledge about human learning behavior, demonstrate better teaching skills and facilitate pupil's learning and language development. A teacher must also display a positive attitude that fosters learning and genuine human relationships and also should know UgSL. If a teacher is not competent in UgSL, then he/she will have a barrier in delivering content to Deaf learners which later affects UgSL development.

Furthermore, Marschark, Schick & Spencer (2006) noted that learners who are Deaf find it hard to communicate with teachers and peers who do not know Sign Language and as a result, they drop out of school. In a related development, I concur with this finding because most teachers experience great difficulty in delivering content to Deaf learners due to a lack of effective mode of communication with teachers, peers, and parents who do not know UgSL and as a result, they drop out of school. Furthermore, Adoyo, (2007) pointed out that most parents experience great difficulty in delivering content to their children who are Deaf due to a lack of effective mode of communication.

### 2.4.4 Non-teaching staff UgSL skills

Though the school has models, some non-teaching staff communication skills in UgSL are limited. These include some matrons, cooks, and drivers. Therefore, instruction from these respective workers is not given in a clear format to bring out a meaningful sentence in UgSL. Therefore, this is a hindrance to Language development in Deaf children. More to that Wilkens & Hehir, (2008) noted that sign and speech communication approaches have been at the heart of Deaf education from the beginning since Deaf people started having social networks. It was observed that the matron uses more spoken language than UgSL which makes the Deaf learners face difficulties in trying to bring out a meaningful sentence in what the matron is trying to communicate (Lutalo-Kiingi & De Clerck, 2017).

## 2.5 Strategies of improving the development of UgSL

### 2.5.1 UgSL curriculum development

The curriculum makes a significant difference to educational achievement and learning, we still need to find strategies in which curriculum adaption should be enhanced and facilitated across different sectors of society (Leigh & Crowe, 2020; Power & Leigh, 2011).

According to Akach, (2010); Magongwa, (2010) educators, schools, and other related professionals should more systematically adapt the curriculum to meet the demands of Deaf learners to develop UgSL. Early acquisition of (UgSL) is encouraged both to develop cognitive skills and improve the child's ability to learn English. There are generally twelve principles of the proposed model educational program include Sign Language as the first Language of Deaf children, separation of Signed and spoken Languages in the curriculum, second language (English) learning through reading and writing; and the least restrictive environment as one in which Deaf children acquire a natural Sign Language and thus, access to spoken Language and curriculum content (Power & Leigh,2011).

### 2.5.2 Deaf role models teaching Deaf children and parents

UNAD has been conducting a program peer to peer education at USD aimed at teaching and improving the English language of Deaf learners from 2017 – 2019. Also, Deaf instructors train parents and their Deaf children in UgSL every Wednesday, since the 1980's to date. Currently, the CRANE-KYU program has been running since 2018 targeting parent's awareness of the potentials of their Deaf children and strengthening Deaf Sign Language instructors and hearing teachers on pedagogical approaches to bilingual education of Deaf children (Adoyo, 2002; Emmorey, Giezen & Gollan, 2016). Teachers and Deaf Instructors have been undergoing thorough pieces of training during school term holidays conducted by Dr. Lutalo-Kiingi and Dorothy Lule (2018- 2019).

Assisting children and families in Language learning like Sign Language programs, family-Infant-Toddler Program (organized activities and training to foster Sign Language acquisition and socio-emotional development). Also, the preschool-kindergarten curriculum designed to prepare the children for the regular primary school and a grade component taught in such a way as to enable Deaf children to acquire the regular curriculum and a component focused on materials and resources development (Leigh & Crowe, 2020; Power & Leigh, 2011).

### 2.5.3 Parent's role

Dr. Namusoke a pediatrician at Bethany Children's clinic in Luzira urges parents to encourage their children aged 3-8 years to create toys to nurture imagination and creativity. She explains that between the age of 1-2 years, children go through rapid learning and testing. She adds that it is during this time when children begin to jump crawl and climb. They are also moving into problem-solving skills. She advised parents to provide relevant and useful play materials such as color boxes, crayons, paint, picture books, and puzzles (Easterbrooks & Beal-Alvarez, 2012).

In addition to playing, parents need to feed their children. The First Lady and Minister of Education and Sports by Janet Museveni reminded parents of their basic responsibility of providing nutritious feeding for their children both at home and school. She noted that children cannot attain quality education when they are hungry in class. She emphasized that the responsibility of feeding the children is primarily for parents.

Goal 2 of the Sustainable Development Goals (SDGs) calls for an end to hunger, the achievement of food security, improved nutrition, and promotion of Sustainable Agriculture. In her opinion in the New Vision article dated April 30th, 2018, Mrs. Museveni noted that in the past school administrators collaborated with parents and students and managed school farms that provided food for the entire school.

In fulfilling the SDGs, the researcher's observation at USD as evidence the school owns a poultry farm where Deaf children are taught independent

life skills. Furthermore, the products from the poultry farm like eggs are consumed by Deaf children. This motivates Deaf children to engage in manual work. While others engage in the bakery and agriculture especially horticulture. Deaf children, apart from classes they are trained in life skills.

## 2.5.4 Co-working between hearing teachers and Deaf teachers

UgSL is widely used for social interaction among the large concentration of Deaf people living and working with hearing members. This was observed at USD where some classes have got a Deaf teacher working alongside a hearing teacher. (Lule & Wallin, 2010). The belief that Deaf people are the best teachers of 27 assledhasled some institutions and schools to employ Deaf sign language instructors and researchers to run sign language programs irrespective of whether they meet the standard qualification requirements which have led to the increase of Deaf instructors/ teachers working in Deaf schools and institutions with Deaf students (Lutalo-Kiingi & De Clerck, 2015; Power & Leigh, 2011).

## 2.5.5 Peers and play

Deaf children progress through stages of play like the hearing counterparts. Children who lag in language development show delays because they are not able to interact with their parents and peers. Some parents of Deaf children are eager to see their children active signing. Early sign language acquisition is the best way to help them achieve success academically (Luft, 2017; Spencer, Erting & Marschark, 2000). Children with appropriate language skills get along better with peers in school settings. (Marschark & Spencer, 2010). Deaf children as observed at USD engage more in play during outdoor games. This facilitates interaction and communication with each other informally thus UgSL development.

# CHAPTER THREE

# METHODOLOGY

## 3.0 INTRODUCTION

In this chapter, the researcher describes how the study was conducted. Inclusive is the research design, the study area, general population, sampling techniques, sample size, data collection methods, data analysis, data collection instruments, pretesting, the procedure for data collection, and ethical consideration.

## 3.1 Research design

The study was carried out using a descriptive research design Wilson, (2017: 65) that took a case study of Uganda School for the Deaf ranging from the past two years and later on whereby qualitative data was employed by use of questionnaires and spontaneous Dixon, 2010; Orfanidou, Woll, & Morgan, (2015). To assess the factors that influence the development of UgSL in the learning environment at Uganda School for the Deaf, a correlation research design was used.

## 3.2 Area of the study

The study was carried out at Uganda School for the Deaf in Kampala City. This is because this School is one of the Schools in Uganda for the Deaf that uses UgSL for instruction and learning. It is a special school for the Deaf that was the first to be established using UgSL for communication.

## 3.3 General school population

The study targeted 30 staff and learners at Uganda School for the Deaf. The school has an enrolment of 203 as of 2019 which includes 86 boys, 117 girls, 12 teaching staff, and 15 non-teaching staff who carry out a vocation and other activities. The general population was 230.

## 3.4 Sample techniques and selection

Sampling is the process of selecting a smaller part to be investigated according to Litosseliti, (2010); Wilson, (2017) the study used Purposive sampling for all the participants. Dixon, (2010) observes that this technique helps the researcher to achieve a thorough understanding of the issues being studied.

Purposive sampling is where a researcher handpicks the respondents to participate in the study based on his/her judgment of their possession of particular characteristics being looked for (Orfanidou, Woll & Morgan, 2015).

A total of 30 respondents were selected using purposive sampling techniques as illustrated.

| Position | Participants |
|---|---|
| Hearing teachers | 09 |
| Deaf teachers | 03 |
| Hearing non-teaching staff | 04 |
| Deaf non-teaching staff | 03 |
| Deaf role models | 01 |
| Deaf Learners | 10 |
| **Total** | **30** |

Table 3.1: Showing composition of the sample

## 3.5 Research Instruments

The researcher used questionnaires and video recordings to collect and capture data from the respondents. The questionnaires were used because they cover a wide area of a sample frame, no bias on the side of the researcher and the respondents have adequate time to give well-thought-out answers (Harris, Holmes & Mertens, 2009; Orfanidou, Woll, & Mogan, 2015). The questionnaires were hand-delivered to the employees to cut down postage costs and save time for data collection. The questionnaires were administered by the researcher to ensure a high rate of return and response.

### 3.5.1 Interview guide

The researcher carried out interviews with the focus group of Deaf children at USD. The interviews were conducted in Primary five to seven class, and the researcher got a chance to meet teaching staff in their respective classrooms and had an interactive dialogue with each and the selected learners. Since Deaf children could not understand the set questions, the researcher went ahead to translate as Deaf children gave feedback. The camera video recorded the proceedings. This instrument was used because it is a quick method of data collection, can easily be interpreted, and used UgSL transcription by respondents from the video data. According to Litosseliti, (2010); Wilson, (2017) an interview guide is a list of topics to be discussed in an unstructured interviewed organization to be asked (semi-structured) and in what order (structured) for example the monologues interviews. It is also known as a discussion guide. A semi-structured interview guide was used to collect the necessary video data for the study. The researcher was in a good position to control the interview to avoid bias and distortion of the interview to get accurate information from the respondents in UgSL (Lutalo-Kiingi, 2014:44).

### 3.5.2 Participant observation

Observation is another method for collecting qualitative data. Observation enables us to grasp multiple perspectives in natural social settings (Bleach, 2013:22). I used observation to observe respondents by taking notes, teachers while teaching in class, parents training, and children interactions outside class. The researcher had to observe lessons in progress for forty-five minutes. It was observed that some of the teachers used verbal language with gestures while others maintained UgSL to deliver the lessons to learners. Furthermore, on the classes for pre-school children which is conducted once a week, it was observed that the class was only conducted in UgSL and found out those parents and children had more interest in signing.

### 3.5.3 Questionnaire and spontaneous

According to Litosseliti, (2010); Orfanidou, Woll & Morgan, (2015) a questionnaire is an instrument delivered to the participant via personal (intercept, phone, or video recordings) or non-personal (computer-delivered) means that is completed by the participant. Questionnaires and spontaneous were chosen because of their simplistic nature of administration to participants in an area. They were also used to answer the research questions.

The researcher hand-delivered the 20 questionnaires forms to hearing teachers and non-hearing teachers after two weeks, went back to collect the filled-in forms. It was easy to collect data from the teaching staff and non-teaching staff. However, for Deaf teachers and learners, for accuracy reasons, the researcher had direct interaction spontaneous one-to-one. This was done to read and translate the questions in UgSL as they gave their response and feedback while the researcher filled in the forms. 10 video recordings (DMRs, Deaf teachers, and Deaf learners) proceedings were captured to help the researcher when analyzing data.

### 3.6 Data collection procedure

The researcher got a letter from Kyambogo University after preparing the questionnaire. Then the researcher went to the fieldwork. First, the researcher established a rapport with the respondents and then administered the questionnaire to them and gave them a time of 14 days to complete the questionnaire, after that the researcher went to collect them.

### 3.7 Data analysis and Presentation

The researcher used video recordings stored on an SD memory card, flash disk, and Hard Drive to avoid loss of the information.Therefore, the videos were re-played and reviewed during analysis for accuracy reasons. Also, the notebook with some details collected during observation and interviews was

displayed and returned filled-in forms from the respondents were used to analyse the information. Data were analyzed using techniques such as percentages, frequencies, and weighted averages. This agrees with Crasborn & Sloetjes, (2008) who argue that **ELAN**[1]software of the process of unloading and organizing the data files specifically works with Sign Language data using video data recordings to facilitate the use of annotation documents. In its widest sense browsing and searching data analysis.

## 3.8 Data Pretesting

The process of data pretesting involved editing to check for errors and omissions, coding was employed to reduce the data to a meaningful pattern of responses, and tabulation of the findings was done to prepare data, analyze and compile the research report (Harris, Holmes, & Mertens, 2009).

## 3.9 Ethical Considerations

The researcher was ethical in keeping certain information confidential on special requests by respondents.The respondents signed a consent form accepting the video recordings to be viewed and used for only research purposes including conference presentations and publications. This is supported by Lutalo-Kiingi (2014:49) who asserted that it is prudent to document information from archives only with the consent of respondents. Furthermore, an introductory letter from the head of the department and permission from the administration of the school were obtained. Also, the researcher was ethically bound to acknowledge all published sources of literature used in the study.

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[1] The Elan can be browsed at https://archive.mpi.nl/tla/elan

# CHAPTER FOUR

**PRESENTATION AND INTERPRETATION OF FINDINGS**

## 4.0    INTRODUCTION

This chapter presents results (findings) from the study and analysis according to the objectives of the study and the research questions. The findings were analyzed using **ELAN** transcription of themes and presented below.

### 4.1    Demographic information

The study involved 12 male and 18 female respondents represented by 40% and 60% respectively hence the highest numbers of respondents were female as shown in Table 4:1below.

|  |  | Frequency | Valid Percent | Cumulative Percent |
|---|---|---|---|---|
|  | Male | 12 | 40% | 40% |
| Valid | Female | 18 | 60% | 60% |
| Total |  | 30 | 100% | 100% |

Table 4.1: Showing the gender of respondents

## 4.1.1 Age group

The study found out that the highest number of respondents at Uganda school for the Deaf were in the age group of 14 - 40 years represented by 50% as shown in Table 4:2 below. This implies that the staff at the school is mature and energetic enough to carry on the task of teaching.

| Valid | Age | Frequency | Valid Percent | Cumulative Percent |
|-------|-----|-----------|---------------|--------------------|
| Children | 14-17 | 10 | 33% | 33% |
| | 21-30 | 5 | 17% | 17% |
| Teachers | 31-40 | 15 | 50% | 50% |
| | Total | 30 | 100 | 100% |

Table 4.2: Showing age bracket of the respondents

## 4.1.2 Level of education respondents

The study found out that 60% of the respondents were holding a Certificate whereas 22% had a Diploma and 18% were Degree holders from primary teacher's college holding a diploma. This implies that several teachers and non-teaching staff at Uganda School for the Deaf qualify to handle Deaf learners. The level of education qualification is shown in Figure 4:1 below.
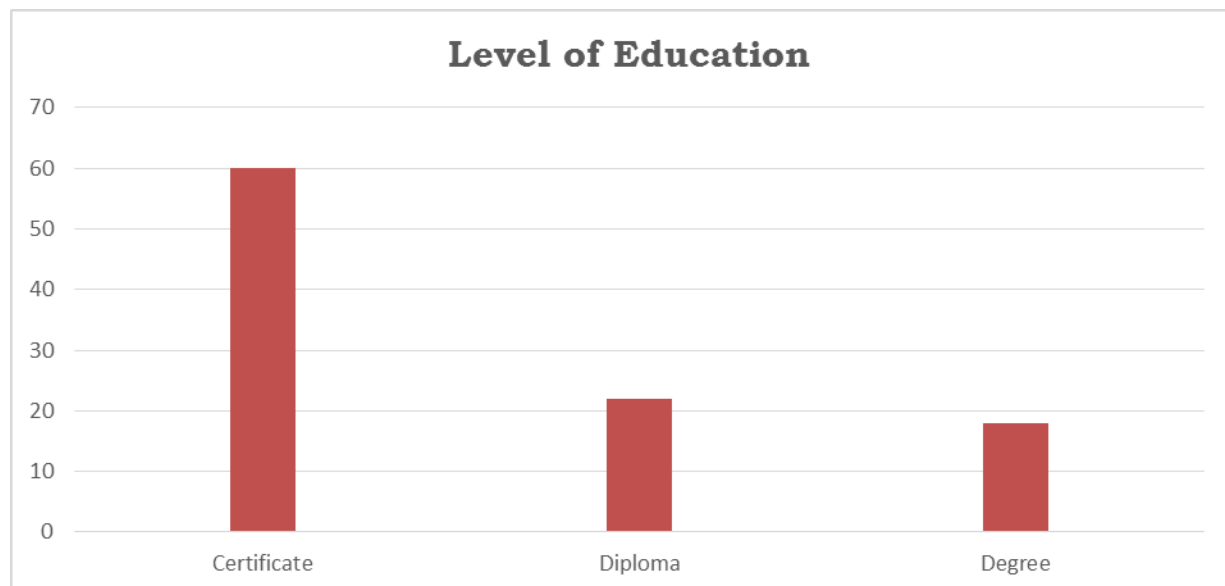


Figure 4.1: Showing level of education

### 4.1.3 Work experience of respondents

| | | Frequency | Valid Percent | Cumulative Percent |
|---|---|---|---|---|
| Teaching and Non-teaching staff | Less than a year | 5 | 25% | 25% |
| | 1-5 years | 4 | 20% | 20% |
| | 6 -10 years | 4 | 20% | 20% |
| | 11-16 years | 6 | 30% | 30% |
| | 17 and above | 1 | 5% | 5% |
| | Total | 20 | 100% | 100% |

Table.4.3: Showing work experience of respondents

It was found out that 30% of the respondents have worked at Uganda School for the Deaf for 11 to 16 years, see Table 4:3 above. 20% worked for 6 to 10 years. This implies that the teaching and non-teaching staff at Uganda School for the Deaf have good experience handling Deaf learners.

## 4.2   Findings on the environmental aspects that support the development of UgSL

This section reveals the opinions of various respondents working at Uganda school for the Deaf, their opinions are grouped under; Deaf role models, parents, Deaf peers, and Hearing teachers.

**N=30**

| Response | Frequency | Percentage |
|---|---|---|
| Deaf role models | 09 | 30% |
| Parents | 06 | 20% |
| Deaf peers | 07 | 23% |
| Hearing teachers | 08 | 27% |
| Total | 30 | 100% |

Table 4.4: Shows environmental aspects that influence the development of UgSL.

The researcher found out that the major factors that support the development of UgSL were the presence of DRMs and this was represented by 30% of the responses who strongly agreed that DRMs interact with Deaf children during outside classroom activities and they are also helpful during classroom instructions, 27% reported that hearing teachers are critical in facilitating the process of learning among Deaf learners, therefore, through the process of learning in the physical environment; classroom by Deaf children end up acquiring knowledge and UgSL skills, 23% agreed that the successful development of UgSL depends on the learner's interactions with peers when playing in the school compound, whereas 20% agreed that the parents' training every Wednesday was instrumental since parents learn UgSL and ultimately enhance their communication skills with their Deaf children.

### 4.3 Findings on the features that hinder the development of UgSL
N=30

| Respondents | Frequency | Percentage |
|---|---|---|
| UgSL learning skills | 9 | 30% |
| Un-involvement of teachers with Deaf role models | 5 | 17% |
| Physical learning environment | 9 | 30% |
| Cultural awareness | 7 | 23% |
| T**otal** | 30 | 100% |

Table 4:5: Shows features that hinder the development of UgSL

30% of the respondents strongly agreed that UgSL learning skills towards Hearing teachers and non-teaching staff lead to limited vocabulary signs, and this is worsened by the transfer of teachers who are skilled in UgSL and replacing them with teachers who lack knowledge in UgSL which is a language of instruction and this hinders the development of UgSL; This is affirmed during the one on one interview with one of the teachers:

"I don't know UgSL even when a deaf pupil brings an assignment, I find it difficult to guide him" N=HT2

While another teacher said;

> "I always seek assistance from my fellow (Deaf) teachers whenever am tasked to communicate to a deaf learner because I don't have UgSL skills. It is very unfortunate" N=HT5.

The Un-involvement of teachers with Deaf role models; 17% of the participants agreed that the un-involvement of teachers with DRMs hinders UgSL development, teachers of Deaflearner's lack role models to encourage them to develop high esteem and hopes in teaching deaf learners. The lack of policies that support co-working leads to delayed sign language acquisition between teachers and deaf learners. Physical learning environment was represented by 30% of the responses whereas 23% represented culture awareness. During the focus group interview, a Deaf child revealed that;

> "my teacher provides instructions required for learning verbally especially during physical exercises and when it comes to communication with me using UgSL, she is always aloof" N=FG

> "our SST teacher just writes on the blackboard during classroom instructions and assigns us to copy and write what she's putting down on the blackboard without an explanation. "N=FG.

## 4.4 Findings on strategies to improve the development of UgSL

**N=30**

| Response | Frequency | Percentage |
|---|---|---|
| UgSL curriculum development | 10 | 33 |
| UgSL communication skills and Cultural context | 9 | 30 |
| Co-working between hearing and Deaf teachers | 5 | 17 |
| Peers and their social interaction | 6 | 20 |

Table 4:6: Showing strategies to improve the development of UgSL

During data collection, respondents suggested some important strategies for enhancing the development of UgSL in the learning environment; 33% of the respondents clearly stated that the curriculum should be adapted in UgSL literacy development to meet the demands of Deaf learners which will eventually lead to the enhanced development of UgSL, 30% agreed that the communication skills and cultural knowledge by DRMs teaching Deaf children, Hearing teachers, hearing non-teaching and parents are designed to improve on the communication skills between teachers, parents and their children, 17% respondents argued that when Deaf teachers work together with hearing teachers (co-working)they both learn from each other, whereas 20% of the participants said that peers and social interaction activity are essential in the development of UgSL. When Deaf learners play together, they learn to socialize and enhance their communication skills and how to communicate with each other.

# CHAPTER FIVE

## DISCUSSIONS, CONCLUSION, AND RECOMMENDATION

## 5.0  INTRODUCTION

This chapter discusses the findings, conclusion, and recommendations of the study. The study investigated the factors influencing the development of UgSL in the learning environment.

### 5.1  Environmental aspects that support the development of UgSL

#### 5.1.1 Discussion of findings for objective one

Objective one sought to find out the "environmental aspects that support the development of UgSL in a learning environment". Findings in Table 4.4 section 4.2 in line with objective one revealed by specific percentages show the importance of a supported learning environment in the development of UgSL; 80% of the respondents (DRMs) supported conversation within the physical learning environment at USD.

#### 5.1.2 Summary of findings

Findings show support to the development of UgSL as it was presented in table 4.4 section 4.2,  the physical environment included the learning classroom instructions by hearing teachers who are critical in facilitating the process of learning among Deaf learners, acquiring knowledge and UgSL skills outside classroom activities by DRMs and UgSL depends on the learner's social interactions with a supported conversation of peers when playing in the school compound where we have both hearing teachers and non-teaching staff who need support in sign linguistic skills which was represented by frequencies of 30%, 27%, and 23% respectively.

The physical learning environment according to the respondents is indeed a major factor. Studies have shown in the United States of America in 2005, the influence of the school environment on the development of Sign

Language leading to the learner's achievement that is affected either positively or negatively by the school environment (Moores, 2010; Senghas & Coppola, 2001). Studies similarly about student achievements and building conditions concluded that the school significantly affects the student's achievements.

Table 4.4 section 4.2, shows the responses that emerged from Deaf role model participants, Knoors & Marschark, (2014) affirm that adult Deaf role models who work around Deaf children help them attain language proficiency. The study established that Uganda school for the Deaf employs Deaf models in lower primary. It was found out that Deaf models interact with Deaf children during outside classroom activities and they are also helpful during classroom instructions (Lutalo-Kiingi, 2014; Magongwa, 2010). Findings established that Deaf models work together with hearing teachers help Deaf children in the learning environment. It was observed that Deaf children in the lower primary class were fluent in UgSL due to the presence of Deaf role models. Both Deaf and hearing teachers agreed that the role of Deaf models in sign language acquisition for Deaf children is very significant and should not be undermined (Pfau, Steinbach & Woll, (2012).

Similarly, Marschark, Schick & Spencer (2006), notes that in the United States neither national certification of Deaf educators nor most teacher training programs in Deaf education require minimum competency in ASL to teach. Hearing teachers of Deaf children claim that they learn how to sign from the children they teach. Deaf children usually are often faced with language learning environments that few children will ever encounter.

The focus group asserted that when Deaf children interact freely with their peers, their language acquisition skills are enhanced, thus resulting in UgSL development (Marschark & Spencer, 2010; Moores, 2010). It was observed that Deaf children while interacting with their peers during outside classroom activities communicated mostly using SL compared to when they are attending their class lessons. Therefore, the physical environment has tremendously promoted the development of UgSL among Deaf children. This,

therefore, promotes UgSL among Deaf children (Adoyo, 2007) Also, the non-teaching staff pointed out that teachers are seen as instruments of change by parents of Deaf children and thus entrust them with their children while at school hence creating a favorable and good learning environment for the learners to acquire more skills in UgSL and ultimately promoting UgSL amongst Deaf learners.

The researcher agrees with both the respondents' views because teachers demonstrate better teaching skills and facilitate pupil's learning. A teacher must display a positive attitude that fosters learning and genuine human relationships and also should know the subject matter.

## 5.2 Identify factors hindering the development of UgSL

### 5.2.1 Discussion of findings for objective two

Objective two sought to find out factors in the learning environment hindering the development of UgSL. Findings in Table 4.5 section 4.3 revealed that the challenges hindering the development of UgSL in a learning environment, lead to linguistic incompetencies represented by 83% of the respondents at USD.

### 5.2.2 Summary of findings

Findings show that there is no comprehensive linguistic communication skills development as presented in table 4.5 section 4.3, that is to say, the major factor that hinders the development of UgSL in the learning environment which leads to limited sign vocabulary and this is worsened by the transfer of teachers and lack of cultural awareness which breeds negative attitudes towards the development of UgSL and this is represented by 30%, 30%, and 23% respectively.

About the findings above, De Clerck (2015) observed that for so long Deaf people have been lagging not as a result of their Deafness, or because they want to, but rather as a result of societal attitude towards them. Calderon, (2000) pointed out that most parents have a negative attitude towards their Deaf children. He further noted that many such parents of those

children often do not take them to school. He added families, communities vary in criteria on which learning is based for example some evaluate learning to base on gender, ethnicity, and culture. Generally, most children are keen on how their parents and family members relate to them. The Deaf children's responses on the hindrances for UgSL development concurred with the responses given by the hearing teachers. This is the reason why most parents when born a child of Deafness, Therefore, most Deaf children sometimes miss socializing if parents are in such dilemma situations thus affecting language development at an early age.

Also, Zaitseva, Pursglove & Gregory, (1999)asserted that Deaf children with hearing parents suggested that poor maternal communication skills had negative effects on their children's language learning compared with Deaf parents of Deaf children who demonstrate early interactions coupled with effective communication had positive effects on language development as well as social-emotional development.

The above agrees with Knoor & Marschark, (2014) who clarifies that lack of access to conversations in the environment limits opportunities for incidental learning and leads to difficulty in communicating about daily routines, therefore, creating challenges in discussing thoughts, beliefs, and intentions among Deaf children because they lack sign language (Calderon, 2000). When Deaf children are exposed to natural and accessible sign language from an early age, they do not suffer delays in sign language development. This is the case with Deaf children at Uganda school for the Deaf who neither involve in social conversations with parents not even siblings and only parents expect teachers to experiment everything to his/their Deaf child. According to Lule & Wallin, (2010). Responses from hearing teachers denoted that parental attitude is the major hindrance to the development of UgSL in the teaching of Deaf learners (Marschark, Schick & Spencer, 2006; Moores, 2010). However, there was a disagreement from the Deaf teachers at Uganda school for the Deaf. The responses and discussions from the Deaf teachers reflected that the most outstanding hindrance to the development of UgSL in the teaching of Deaf learners was not a negative attitude but rather a

limitation in communication due to the inadequate signing skills (Mweri, 2014; Oracha, 2007). Therefore, sensitivity and awareness on the part of the teacher in a school is essential towards the promotion of Sign Language development (Lutalo-Kiingi & De Clerck, 2017). Studies have shown that if a teacher has low expectations towards Deaf learners then the children will unlikely receive satisfactory education in hearing-impaired schools (Adoyo, 2007).

Teachers are critical in facilitating the process of learning among Deaf learners worldwide (Cook, 2007). Therefore, through the process of learning, Deaf children end up acquiring knowledge and skills about UgSL from the teachers. Both hearing and Deaf teachers agreed that teachers' involvement during classroom instructions is very crucial since it motivates Deaf children to learn from such teachers while at school.

The researcher agrees as it was observed in the lower classes from pre-primary to primary two where Deaf role models are working hand in hand with hearing teachers. Most of the teachers use signed English but the Deaf models communicate using UgSL, however from primary four onwards there are no models only children communicate in UgSL with peers but in class, it is Signed English. This hinders language development in Deaf children. However, the highlights that if appropriate language models are available, Deaf children acquire language efficiently and at least as early as hearing children acquire their community's spoken and written languages.

## 5.3    Strategies to improve the development of UgSL

### 5.3.1 Discussion of findings for objective three

Objective three sought to find out the "possible strategies of improving the development of UgSL". Findings in Table 4.6 section 4.4 concerning objective three reveal important strategies for enhancing the literacy development of UgSL in the learning environment represented by 83%of the respondents that the cultural knowledge, conversation with Deaf children, and physical environment are very key in the development of UgSL literacy at USD.

### 5.3.2 Summary of findings

Findings show the important strategies for enhancing the development of UgSL in the learning environment as presented in table 4.6 section 4.4. The curriculum should be adapted in UgSL literacy sign vocabulary and reading to meet the demands of Deaf learners thereby improving the development of UgSL.The knowledge awareness about communication skills and deaf culture,positive attitudes towards UgSL and encouragement peers learning and social interaction activity is essential in the development of UgSLas represented with frequencies of 33%, 30%, and 20% respectively. As presented in table 4.6 section 4.4 17% argued that when Deaf teachers work together with hearing teachers (co-working) they both learn from each other hence leading to the development of UgSL.

It is essential for Deaf children to use UgSL as their first language, "mother tongue" as early as possible with their parents and siblings at home. Therefore, exposure to Sign Language should begin as early as possible as it builds a foundation for a second language for learning. This is equivalent to hearing children at an early age who are exposed to the speaking environment and learn the spoken language, master it then making it easy for them to learn reading, writing, and another language like English. It is believed that Deaf children with signing parents tend to master their mother tongue (Sign Language) in the same way or at the same age as hearing children learn the spoken languages of their environment (Easterbrooks & Beal-Alvarez, 2012).

According to Eron, (2015) active social participation by Deaf learners in the classroom is partly influenced by how the teacher manipulates and explores the environment. Environmental factors such as acceptance, access to information through mutually agreed-upon communication modes, and support from prejudice influence the extent to which the Deafness learns and experiences the reality of life.

The major finding denotes that the curriculum should be adopted in Ugandan schools to meet the demands of Deaf learners thereby improving the development of UgSL (Leigh & Crowe, 2020; Power & Leigh, 2011). This can be

a solution to make teachers have knowledge and skills on UgSL. This is further supported by Luft, (2017) who clarifies that teachers of the Deaf need the necessary knowledge and skills for facilitating academic participation. In preparing teachers for the requisite knowledge and skills, teacher educators ought to take into consideration two factors. The first is that Deaf learners are a heterogeneous group.

Furthermore, assuming UgSL curriculum is extended at all levels of education, caregivers, parents, and peers' knowledge about UgSL could enhance Deaf children's language development. Swanwick (2001) is of a view that children's development of their home or first language is the transferability of skills between the first and second language. Therefore, the growing positive attitude of bilingualism, in general, is the best for Deaf children unlike Uganda School for Deaf where most teachers try to use signed English which is not the children's first language thus hindering sign language development and this is the reason why Deaf children fail to master the second language which is English.

Similarly, the researcher findings reveal that there is ongoing research being conducted at Uganda School for the Deaf on the development of Deaf children's bilingual-fluency in UgSL. The pilot project is called peer-to-peer education and targeting lower classes. Deaf teachers work alongside hearing teachers. According to my observations, Deaf children under this pilot project, their communication ability and writing skills are far better compared to their counterparts. According to Akach, (2010); Magongwa, (2010) educators, schools and other related professionals should systematically adapt UgSL. The researcher is in support of the findings. This is because adapting the curriculum to meet the needs of Deaf learners at different levels of education facilitates the development of UgSL hence the need to be included in the Ugandan Curriculum (Lutalo-Kiingi & De Clerck, 2017).

It was observed at USD that Deaf teachers work hand in hand with hearing teachers during indoor and outdoor class activities which made learners develop and understand UgSL much faster. Peer and play, majority of

the Deaf children interviewed during data collection emphasized that during play activities, they freely interact with their peers enabling them to acquire UgSL from their counterparts.

The other divergent findings to enhance the development of UgSL suggested the use of successful Deaf role models (Marschark, Schick & Spencer 2006). Respondents proposed that in this strategy, the successful Deaf role models will share the testimonies of their success stories which may help to motivate both the learners and their parents and in turn, it may promote UgSL development thus in the process yield improved academic performance of Deaf learners.

The Deaf children have a chance to naturally acquire sign language with constant language input from fluent signers, the better their cognitive and social skills because they can receive information about actions, objects, experiences, and events in time. Good practice in Bilingual exists where Deaf adults have specific responsibility as role models and also mentors for both Deaf and hearing worlds (Wilkens & Hehir, 2008; Zaitseva, Pursglove & Gregory, 1999).

According to Luft, (2017) it reflects that the child's learning is a collective responsibility of the home, school, peer groups, and the entire society (Knoors & Marschark, 2014; Marschark & Hauser, 2012). When all these factors are combined, this leads to the development of UgSL in teaching Deaf learners.

The successful development of UgSL depends on the learner's interactions when playing in the school's compound with peers (Emmorey, Giezen & Gollan, 2016). It's very important that when children see their colleagues sign, they imitate these signs hence facilitating their learning of UgSL the learning environment is a key factor to learners who are Deaf. Social interaction among Deaf children leads to the development of UgSL.

## 5.4 Conclusions

Given the findings and discussions provided in chapter five above several conclusions have been drawn from the study. These conclusions are per the research objectives. In accordance with this objective 1 section 2.3, it was concluded that the major factors that support the development of UgSL in the learning environment include, availability of learning materials such as visualised learning aids, presence of well-trained hearing teachers and non-teaching in UgSL, positive attitude towards UgSL, presence of Deaf role models in the school and parental involvement with Deaf child in the UgSL training (Lule & Wallin, 2010).

Concerning objective 2 section 2.4, it was concluded that hearing teachers and non-teaching staff who do not know UgSL is majorly caused by transfers. Therefore most hearing teachers have limited vocabulary and knowledge UgSL linguistics in their respective subjects. This is the most outstanding hindrance to the development of UgSL in the learning of Deaf children most especially in the classroom environments. In the early interaction, most parents do not know UgSL and this affects the fluency of Deaf learners hence making it hard for parents to communicate adequately with their Deaf children.

As far as objective 3 sections 2.5 is concerned, it sought to propose some strategies for improving the development of UgSL. The major conclusion drawn was that the development of UgSL curriculum instructions would help to improve their fluency signing skills, linguistic comprehensive communication skills, and the development of UgSL vocabulary. Generally, issues raised to reflect that parental involvement is not only important for academic success, but also for social and emotional development among other benefits which Deaf learners benefit from when their parents are active and willing to participate in educational programs.

## 5.5 Recommendations

Given the findings and conclusions arrived at in this study, I have some recommendations to make. They are also per the research objectives of the study:

i. The use of successful DMRs should be upheld and more recruitment is needed in schools for the Deaf in Uganda.

ii. Awareness platform on the importance of UgSL should be organized by stakeholders.

iii. Inclusive and Special education of Deaf education approaches should be given an opportunity of upgrading UgSL curriculum as it will create an avenue of a better learning environment in UgSL unilaterally.

iv. Continuous supervision of schools by an inspector of SNE, however transfer of hearing teachers should be done in respect to other Deaf schools and not hearing schools because it immensely affects the learning of Deaf children.

v. The government should implement and make follow up on inclusive education policies to cater for UgSL as a compulsory subject like other languages from secondary schools, teacher training colleges, and other academic institutions.

### 5.5.1 Suggestions for Further Research

I suggest that further research should be carried out on:

- Parenting, Home environment, and the academic performance and its influence in the learning process of Deaf children.

- Aspects of UgSL curriculum instruction and literacy development in the learning process of Deaf children.

- Teacher-Parent Relationship and learning process of Deaf children.

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# APPENDICES
## APPENDIX 1: INTRODUCTORY LETTER

# KYAMBOGO UNIVERSITY

P. O. BOX 1, KAMPALA
**FACULTY OF SPECIAL NEEDS & REHABILITATION**
Tel: 0414-286237/285001/2  Fax: 0414-220464
*DEPARTMENT OF SPECIAL NEEDS STUDIES*

15ᵗʰ January, 2019

The DEO/DIS/Head teacher/Teacher/Community/Opinion Leader/Church Leader
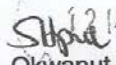
HEAD TEACHER; UGANDA SCHOOL
FOR THE DEAF

Dear Sir/Madam,

RE:   INTRODUCTION OF RESEARCH STUDENT ON DATA COLLECTION

This is to introduce the bearer Rev/Dr/Sr/Mr/Mrs/Ms AKOTH JACKIE
Reg.No: ............................................... who is a bonafide student of Kyambogo
University in the Faculty of Special Needs and Rehabilitation, Department of Special
Needs Studies. As partial fulfillment of the requirement for the award of the
Diploma/Degree/Master, he/she is required to undertake a research on the approved
area of study.

The purpose of this letter is to request you to allow him/her have access to information
from your office, school or area of operation necessary for the study.

Kyambogo University will be grateful for any assistance rendered to the student.

Yours faithfully,

12 MAR 2019

Dr. Okwaput Stackus
**HEAD OF DEPARTMENT**

OS/aj

**APPENDIX 2:    QUESTIONNAIRES**

To the employees of Uganda School for the Deaf

Dear Sir or Madam,

I am **AKOTH JACKIE** a student of KYU perusing a Master's Degree in Special Needs Education.  I am carrying research on **"FACTORS INFLUENCING THE DEVELOPMENT OF UGSL IN THE LEARNING ENVIRONMENT"** in your school.

All information given is for academic purposes only and your response to these questionnaires will assist me in the completion of this research. Your consent will be sought in case of any publication.

Please spare a few minutes of your time and answer the following questions precisely.

Stay rest assured that all information given will be treated with a high degree of confidentiality and integrity

**SECTION A: BIO-DATA**

For this section, please tick within the box appropriately.

1. What is your gender?

    1.  Male     ☐         2.   Female     ☐
2. What age group do you belong to?

0-20 ☐     21-30 ☐    31-40    ☐

51-60 ☐     61 and above ☐

3. What is your highest level of educational attainment?
a. Certificate ☐          b. Diploma ☐

c. Degree. ☐        D Masters ☐

e. PhD ☐

4. How long have you worked with Uganda School for the Deaf?
Less than years ☐        1-5 years ☐        6-10 years ☐        11-16 years ☐

17-24 years ☐        25 and above ☐

Please indicate by ticking the number which best suites your answer using the key below;

| Strongly disagree | Disagree | Not sure | Agree | Strongly agree |
|---|---|---|---|---|
| 5 | 4 | 3 | 2 | 1 |

**OBJECTIVE 1:**

Which environmental aspects support the development of UgSL in a learning environment at Uganda School for the Deaf?

| | Strongly agree | Agree | Not sure | Disagree | Strongly disagree |
|---|---|---|---|---|---|
| Deaf role models | | | | | |
| Parent's | | | | | |
| Deaf peers | | | | | |
| Hearing teachers | | | | | |
| Other factors | | | | | |

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**Objective 2**

What are the identified factors in the learning environment hindering the development of UgSL at Uganda School for the Deaf?

| | Strongly agree | Agree | Not sure | Disagree | Strongly disagree |
|---|---|---|---|---|---|
| Parents attitude | | | | | |
| Un-involvement of parents with Deaf role models | | | | | |
| Hearing teachers UgSL proficiency | | | | | |
| Non-teaching staff UgSL skills | | | | | |
| Other factors | | | | | |

**Objective 3**

What are the possible strategies for improving the development of UgSL in the learning environment at Uganda School for the Deaf?

| | Strongly agree | Agree | Not sure | Disagree | Strongly disagree |
|---|---|---|---|---|---|
| UgSL curriculum development | | | | | |
| Deaf role models teaching Deaf children and parents | | | | | |
| Parents role | | | | | |
| Co-working Deaf and hearing teachers | | | | | |
| Peers and play | | | | | |
| Other factors | | | | | |

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## APPENDEX 3: CONSENT FORM

**AUDIO/VIDEO RECORDING CONSENT FORM**

This is an action Research study
on. THE FACTORS INFLUENCING THE DEVELOPMENT OF UGSL IN THE LEARNING ENVIRONMENT

The study involves audio and/ or video recording of your participation as a participant/ respondent. Neither your name nor any other identifying information will be associated with the audio or audio recording or the transcript. Only the research team will be able to listen/ view the recordings.

The tapes will be transcribed by the researcher and erased once the transcriptions are checked for accuracy. Transcripts of your participation may be reproduced in whole or in part for use in presentations or written products that result from this study.

Neither your name nor any other identifying information (such as your voice or picture) will be used in presentations or in written products resulting from the study.

By signing this consent form, Iam allowing the researcher to audio or video tape me as part of this research. I also understand that this consent for recording is effective until the end of the study.

| S/NO | Participant | Address | Signature |
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## APPENDEX 4: MAPS