EFFECTS OF KENYAN SIGN LANGUAGE ON ACQUISITION OF
ENGLISH LANGUAGE: A STUDY OF ESAGERI SCHOOL FOR
THE DEAF, MOGOTIO, BARINGO COUNTY, KENYA

BY
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KENYATTA UNIVERSITY

JANUARY, 2016
DECLARATION

This thesis is my original work and has not been presented for a degree in any other university.

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DEDICATION

To my dear wife Jane Kipkech and children Mercy Jepkoech, Stella Jelagat and Faith Kimonda.

Thank you for your love and support throughout this study.
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I wish to acknowledge the contributions of several people who played a significant role in the successful completion of this master’s thesis. My special thanks go to my supervisors Dr. Beatrice Bunyasi and Professor Gathogo Mukuria for their invaluable support and technical advice which was instrumental in bringing this work to its present status. My sincere gratitude goes to Dr. Michael Ivita for availing his expertise at the initial stages of this work.

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ABSTRACT

The aim of the study was to analyze Kenyan Sign Language (KSL) on acquisition of English language. Kenyan Sign Language is considered the natural language of the deaf in Kenya. Teachers in deaf schools are encouraged to use KSL when teaching general subjects and a form of signed English when teaching English. Currently, KSL is placed at the same level with English and Kiswahili languages. The government according to the constitution respect, promote and protect the diversity of languages of her people, this includes KSL. The research objectives were; to find out KSL and English language grammatical structures establish the influence of KSL on acquisition of English language, determine teachers’ ability to cope with the integration of KSL and English language and assess implication of KSL on acquisition of English language. The purpose of the study was to analyze how the use of Kenyan Sign Language is affecting the acquisition of English language. The significance of the study was to promote better understanding of the linguistic needs of the learners with hearing impairments. The study was carried out at Esageri School for the Deaf in Mogotio Sub-County, Baringo County and delimited to learners with HI, schools principal and teachers of the school. The researcher adopted Vygotsky socio-cultural theory, who has laid the foundation for the interactionist view of language acquisition. A pilot study was carried out to establish validity and reliability of the research instruments in Iten School for the Deaf in Elgeyo Marakwet County before the actual collection of data for the main study. The researcher used questionnaires, observation checklist and interview guide. These instruments comprised open-ended and closed-ended questions. The study used both qualitative and quantitative research approaches. The researcher gathered information, summarized, presented and interpreted data for the purpose of clarification. The study used both purposive and stratified simple random sampling technique to obtain the study sample. The study had a sample of 35 persons, which includes schools principal, teachers and pupils. Responses collected from the questionnaires, observation checklist and interview guides were coded, quantified, categorized to generate data for analysis using Statistical Package for Social Sciences (SPSS). Findings were presented in form of tables, pie charts bar graphs and histograms, qualitative data described according to the themes of the study. The findings for the study were to promote a better understanding of linguistic needs of learners with HI with a view to helping them acquire parity with their hearing counterparts since both go through the same systems of education and sit for the same examinations. The study showed that KSL has different grammatical structures from that of English language and its introduction had not boosted learning in schools for the learners with HI and this could limit employment opportunities among the deaf persons in Kenya. The researcher recommended that more teachers should be trained in KSL to equip them with adequate skills for effective teaching of KSL and English language. Further research should be carried out to determine the relationship between signs and mastery of the content among learners with hearing impairments in Kenya.
CHAPTER ONE
INTRODUCTION

This chapter presents the background information; statement of the problem; purpose of the study; objectives of the study; research questions; significance of the study, scope and limitations of the study, assumptions of the study and theoretical and conceptual frameworks.

1.1 Background to the Study

Language use is a vital tool that plays a critical role in human existence. It is not only a means of communicating thoughts and ideas, but also critical in establishing friendship, among individuals and creates cultural ties and economic relationships. There are various definitions on what language is all about depending on different authors. Kellogg, (1995) defines language as a system of symbols that allows communication of ideas among two or more individuals. It involves communication of thoughts and feelings through a system of arbitrary signals, such as voice, sounds, gestures, or written symbols. Rice-Johnson (2008) defines language as a process or set of processes used to ensure that there is an agreement between the sender and receiver for meanings assigned to the symbols. Given the fact that learners with HI have an auditory problem, the primary avenue for reaching their intellect is the eye (Kyle, 1987). Learners with HI use Sign Language (SL) in their everyday communication which is a language that uses manual symbols to represent ideas and concepts.

There is no international sign language, but different national sign languages due to the fact that signs are culturally determined. For example; American Sign Language (ASL),

American Sign Language is a complete and refined language which contains its own grammar, syntax and culture. As is the case with all other sign languages, ASL grammar completely differs from written English. American Sign Language is used in America by teachers as an effective method for teaching and evaluating learners. It is taught as a second or foreign language and has played a major role in educating deaf children. According to Schirmer (2001), ASL is also an appropriate language in transferring of broad cognitive and conceptual skills. Deaf persons acquire, use and gain information through vision. The reception of spoken language for most individuals who are deaf is extremely limited, which restricts the learning of English via auditory channel asserts Schirmer (2001). Within the education of children with deafness, language and literacy skills in ASL have not been recognized as having the potential to impact the acquisition of English among deaf adults in the United States and Canada (Lane, Hoffmeister & Bahan, 1996).

Hulit and Howard (2006) posit that ASL has three components of language: form, content and use. Form includes phonology, how sounds can be sequenced into syllables and words; morphology, how the parts of the word hold meaning; and syntax, how the words are put together in meaningful units. Content includes semantics, which is the system of rules that govern the meaning of words or different word combinations. Use involves pragmatics, the rules related to language used in communicative environment. All types of language contain these three components and Sign language is no different in this
respect and it incorporates form, content and use, very much comparable to spoken languages with exception of phonology. Language in form of sign is similar to spoken language.

Kenyan Sign Language is the preferred language of between 600,000 and 800,000 people in Kenya, Kenya National Association of the Deaf, (KNAD) 2010. Deaf education in Kenya falls under the Ministry of Education, Special Education Division. The number of students in the schools for the deaf according to KSDC (2001) statistics has tremendously increased over the years from 1700 in 1982 to 6000 in the year 2001. Adoyo (2004) states that most deaf children in Kenya join pre-primary classes (nursery and infant classes) at the age of 5 years for two years. He further explains that a small percentage is identified late and therefore, starts school late. The Kenyan Deaf community consists of individuals who come from all the forty-two tribes of Kenya and are united by a common language, KSL, a shared culture, tradition and history. Kenyan Sign Language is fundamental to their self-esteem and social wellbeing. Kenyan Deaf regardless of tribe, gender or religion use KSL as a medium of communication and for official transaction of business, in schools, in religious activities and for various social interactions.

Due to the uniqueness of KSL, The Constitution of Kenya of 2010 (Republic of Kenya, 2010) and the Persons with Disability Act 2003 (Republic of Kenya, 2003) recognize it at the same level with the national Kiswahili and the official English languages used in Kenya. Since KSL is taught alongside English in Kenyan schools, the researcher sought to find out effects of KSL on English language acquisition. The researcher appreciates
that each of the two languages has their own grammatical rules which may have effects on one another.

1.2 Statement of the Problem
The Constitution of Kenya of 2010 (Republic of Kenya, 2010) places KSL at the same level with Kiswahili and English languages. The constitution respects, promotes and protects the diverse of languages of the people of Kenya. It also promotes the development and use of indigenous languages including KSL. Kenyan Sign Language has been introduced in all schools of children with HI as a language and mode of instruction. Being a relatively new language, it has borrowed a lot from English language.

The children with hearing impairment are supposed to follow the regular curriculum just like their hearing counterparts. According to Ndurumo (1986), academic education is important in the education of the learners with hearing impairment. This is because it assists in preparing these children to compete with hearing peers. Effective instruction and subsequent academic achievement for learners with HI require appropriate language. MoEST (2009). The study aimed at analyzing the effects of KSL mode of instruction on acquisition of English language among learners with HI in primary school level. The study put into consideration that Kenyan Sign Language and English Language have different grammatical structures and rules. Kenyan Sign Language is a growing language as compared to English Language and its introduction into the school curriculum might have influence on English Language acquisition.
1.2.1 Purpose of the Study
The purpose of the study was to analyze how the use of Kenyan Sign Language is affecting the acquisition of English language in Esageri School for the Deaf.

1.3 Objectives of the Study
The specific objectives were

i. To find out KSL and English language grammatical structures.

ii. To establish the effects of KSL on acquisition of English language.

iii. To determine teachers’ ability to cope with the integration of KSL and English language.

iv. To assess the implication of KSL on acquisition of English language among learners with HI.

1.4 Research Questions

i. How does the KSL and English language grammatical structure look like?

ii. What are the effects of KSL on acquisition of English language in school?

iii. What level of skills do teachers have in integration of KSL and English language?

iv. What is the implication of KSL on acquisition of English language among learners with HI?

1.5 Significance of the Study
The findings of this study might promote a better understanding of the linguistic needs of the learners with hearing impairments with a view to helping them acquire parity with their hearing counterparts since they both go through the same system of education and sit for the same examinations. The study might also help teachers teaching learners with HI come up with ways of improving the use of KSL alongside English language with the
purpose of strengthening both languages. The findings might give important feedback to curriculum developers and planners in reviewing curriculum for learners with HI.

1.6 Limitations and Delimitation

1.6.1 Limitations
Kenyan Sign language has been introduced to be taught in all schools of children with hearing impairments as a language and mode of instruction. However, due to financial constraints, the researcher chose Esageri School for the Deaf to carry out the study. The other limitation of the study is difficulty in locating relevant local literature since Kenyan Sign Language is a growing language. Baringo County as a whole has only one school for learners with hearing impairments.

1.6.2 Delimitations
This study is limited to learners with HI, school principal and teachers of Esageri School for the Deaf, Mogotio sub- County in Baringo County.

1.7 Assumptions
The researcher assumed that hearing impairment conditions have effects on acquisition of English language and thus creating an impact on communication among learners with hearing impairments. In addition, the researcher assumed that introduction of KSL as a language of instruction might negatively impact on how learners with HI acquire English language, thus affecting use of English language on other subjects within 8-4-4 curriculum.

Lastly, the researcher assumed that if code-switching between the two languages is not checked, learners with HI might not be in a position to learn English language and work
internationally due to language limitations because KSL is a language known and used by Kenyan Deaf community and is not internationally recognized.

1.8 Theoretical and Conceptual Framework
1.8.1 Theoretical Framework
According to Vygotsky (1978) Language acquisition is the process by which humans acquire the capacity to perceive, produce and use words effectively during communication. This capacity involves the selecting of diverse capacities including syntax, phonology, morphology and semantics. This language might be oral as with speech or manual as in sign. The researcher has chosen to adapt Vygotsky (1978) socio-cultural theory. Vygotsky, a psychologist and social constructionist laid the foundation for the interactionist view of language acquisition. According to Vygotsky (1978), social interaction plays an important role in the learning process. He proposed the “Zone of Proximal Development” where learners construct the new language through socially mediated interaction. Although Vygotsky’s social development theory was proposed many years ago, it has begun to serve as a foundation for interactionist approaches of language acquisition recently and as the social interactionists model in recent years. Hartas (2005) states that learning takes place within the context of social interaction where children share responsibility and meaningfully relate with adults and peers.

The competition model is a psycholinguistic theory of language acquisition and sentence processing developed by (Bates & Macwinney, 1989). The theory sought to explain how individuals learn and process language. The competition model indicated that the meaning of language is interpreted by comparing a number of linguistic cues within a
sentence and that language is learned through the competition of basic cognitive mechanisms in presence of a rich linguistic environment (Macwhinney, 1987). This implies that people interpret the meaning of a sentence by taking into account various linguistic cues contained in the sentence context, such as word order, morphology and semantic characteristics. Vgotsky (1978) states that language acquisition can easily be realized differently in emphasizing the role of the environment and producing such differences as is most often the case in child language and not infrequently the case in adult language.

1.8.2 Conceptual Framework
In developing the conceptual framework of this study, an attempt was made to analyze Kenyan Sign Language on acquisition of English language to learners with hearing impairment.
Conceptual Framework

Mode of instruction for HI learner

Kenyan Sign Language structure
- Sentences glossed
- Independent grammar
- Verbs follow SVO, SOV and OSV.

English structure
- Have syntax, phonology, morphology, and semantics.
- Has word classes

Integration of KSL and English language
- Code switching
- Irregular verbs
- Difficulty using verbs
- Difficulty in answering questions

KSL OUTCOME
- High Self esteem
- Improved performance
- Eliminate barriers

Effects and implication of KSL on acquisition English language

ENGLISH OUTCOME
- Low esteem
- Withdrawal
- Lack of competition
- Limits employment
- Not recognized internationally

Language acquisition among HI learners.

Figure 1.1: Language Acquisition Among Learners with HI
1.9 Operational Definition of Terms

The following terms that appear in the study will be used as defined below:

**Bilingualism** – An approach in education of the deaf where two languages are simultaneously used for communication across curriculum.

**Deaf** – Someone who’s hearing disability is so severe that it precludes successful processing of linguistic information through audition, with or without hearing aid.

**Hearing impairment** – Term used to describe individuals who manifest hearing loss, which may range in severity from mild to profound.

**Hard of hearing** – A hearing loss, whether permanent or fluctuating that diversely affects child’s educational performance.

**Language** – Human capacity for acquiring and using complex systems of communication.

**Communication** – Verbal and non-verbal means of transmitting and decoding messages from one person to the other.

**Manual approach** – A system of communication that uses manual alphabet (finger spelling), body movements, facial expression and signs. It is used as a form of communication as well as a means of instruction in the classroom.

**Oral/aural approach** – The use of speech and speech reading. It stresses auditory training, oral training, learning to read the lips and facial expression.

**Signed English** – A mode of communication in English language where signs are superimposed on words in English sentences but affixes such as “s” and “ing” indicated by finger spelling.
**Total Communication**- Is the philosophy of educating children with hearing loss that incorporates all means of communication; formal signs, natural gestures, finger spelling, body language, listening, lip reading and speech.
CHAPTER TWO
LITERATURE REVIEW

2.0 Introduction
This chapter comprises the following themes which are: Kenyan Sign Language and English grammatical structures effects of KSL on English acquisition, integration of Kenyan Sign Language and English language and implications of KSL on English among learners with HI.

2.1 Kenyan Sign Language and English Grammatical Structures
Sign languages have their own way of realizing grammatical structure. They are not based on any spoken language. They exploit the medium of space efficiently, using location and movement, two of the properties of space, to encode features such as inflection, verb agreement, deixis and aspect. Future grammar of signed languages is made through facial expressions and head positions. Various attempts have been made to put spoken languages on the hands. The basic idea is to match each word and morpheme in a spoken language with a signed analogue (Mesthrie, 2002).

According to Okombo (1994), KSL is a visual-based language which uses different modalities of communication unlike spoken English. That is, the basic structural units are of necessity and are fundamentally different. Morphemes composed of sounds are articulated in specific manners and places in the vocal tract, while morphemes composed of parts are articulated by hands, face and body. Since the deaf do not live in isolation and since they form a co-culture in the dominant culture of the hearing, the members of the deaf community interact with members of hearing community and as such, this
linguistic interaction results into language contact between KSL and different spoken
languages notably English. When two or more languages come into contact, bilingual or
multilingual communication takes place. Most deaf Kenyans are fluent in KSL (Akatch,
1997). Some have some level of fluency in English. The little English they learn and use
is a direct result of their schooling experiences and if not keenly checked, they obviously
code-switch to KSL.

Sign Language is a fully-fledged language with its own vocabulary, syntax and grammar.
Sign Language is a visual mode of communication and comprises finger spelling and
signs which represent certain word concepts, objects and other similar attributes. In sign
language, gestures and idiomatic expressions are also used. Thus sign language, as a
visual-gestural language has a grammar of its own that does not follow the grammar of
the spoken English language (Ndurumo, 2008). It is the official language of the Deaf in
Kenya. American Sign Language is the language of the Deaf community in the United
States and Canada. William (2006) reveals that ASL is a legitimate language in its own
right rather than an imperfect variation of spoken English. American Sign Language is a
visual-spatial language in which the shape, location and movement pattern of the hands,
the intensity of motions and the signer’s facial expressions all communicate both
meaning and content. American Sign Language has its own rules of phonology,
morphology, syntax and pragmatics; it does not correspond to spoken or written English.
Articles, prepositions, tenses, plurals and word order are differently expressed from
English. It is difficult to make precise word-for-word translations between ASL and
English as it is to translate many foreign languages into English word for word.
According to Ndumuro (1986), deaf persons in Kenya have a history which coincides with establishment of Kenya Society for Deaf children in 1958. Although English oral language was the official language of instructions, the students had the audacity to use sign language outside classroom. In mid 1970s, the wind of change towards use of sign language in schools for the deaf gained momentum and in 1981 the Ministry of Education proposed to separate schools for the deaf into two groups to cater for oral/aural (oralists) and sign language (manualists). Ndumuro (1986) proposed to the Hearing Impaired Subject Panel of Kenya Institute of Education to have systematic sign language based on the developed Kenyan signs. In 1988, sign language was officially accepted as a method of instruction. According to Ndumuro (2008), there were some challenges as to how to implement sign language in schools. First, there were no books on Kenyan Sign Language. Second, the vocabulary used by deaf people was too basic for instructional purposes and consisted of numbers, pronouns, towns and other concrete based signs.

As a result, the first edition of sign language for schools by Kenya Institute of Education (1990) borrowed heavily from other countries, particularly the United States. Ndewa (2008) states that there exist variations in KSL. This refers to different vocabularies within a language which have the same meaning, realized due to cultural and regional differences. Like spoken languages, KSL has dialects. Within one language, some words/signs could be spoken/signed a bit differently depending on the region the speaker/signer comes from. Every language has synonyms; the synonyms are different from word/signs variation in that while synonyms are two or more words/signs with
similar meaning, variations are words/signs in one region whose meaning in another region would be represented by another word/sign.

For example: Sign for the word deaf in some Deaf communities is signed by placing an open palm on the ear. Others will sign the same word by placing the index finger vertically on the ear.

Kenyan Sign Language is independent of any spoken language. It has its own sentence features and set of grammatical rules. In spoken language, the verbs are always preceding the object. While in KSL, the verb is always succeeding the object. Information in KSL is written by glossing in any language that is understood and is acceptable to a given deaf community. In most cases KSL is glossed in English, this is simply because English is the official medium of instruction from upper primary to higher level of education system in Kenya. Kenyan Sign Language is not random. According to (KNAD, 2001), there are certain orders that can be used while others cannot. The most used being: SVO, SOV and OSV (S= SUBJECT, V= VERB O=OBJECT). The SOV sign order seem to be the most preferred in KSL. The researcher wishes to point out an example of Zambia, whereby according to Zambian National Association of the Deaf (ZNAD) (2001), sign language largely follows the sentence structure of object subject verb (OSV). For example, “The girl is kicking the ball” maybe written as Ball/Girl/Kick.

Glossing in KSL is the writing of spoken words in capital letters. Glossed sentences are punctuated by using a slash / for a comma and double slash // to denote a full stop.

Example: KSL: IF INTERPRETER THERE / ME GO //

English: I will go if there is an interpreter.
A glossed sentence has its meaning enhanced by using non-manual features and facial expressions. These are critical aspects in sentence formation because they give more meaning by showing mood of the speaker. English grammar is divided into morphology, which describes the formation of words, and syntax, which describes the construction of meaningful phrases, clauses, and sentences out of words.

At primary school level, English grammatical structures have eight major word classes. These are: noun, pronoun, verb, adjectives, adverb, preposition, conjunction and determiner. The first seven are traditionally referred to as ‘parts of speech’. There are minor word classes, such as interjections, but these do not fit into the clause and sentence structure of English. According to Carter and McCarth (2006), nouns form the largest word class; they denote classes and categories of things in the world, including people, animals, places, events, qualities and states. Verbs form the second largest word class after nouns; they denote actions, events and processes. Verbs are divided into lexical verbs and auxiliary verbs.

2.2 Effects of Kenyan Sign Language on English acquisition

According to Skutnab-Kangas (1994), mother tongue can be defined in a number of ways: the language one is identified with and the language one uses most. From these definitions, it is convincing that KSL is the mother tongue for deaf people in Kenya. A Deaf Community consists of a core group of persons who are deaf sharing common sign language, values, culture, attitudes and experiences (Ndegwa, 2008). Although the government has made some efforts to socially integrate some of the learners with disabilities in the mainstream schools, most of the deaf learners are enrolled in special
schools which are residential. UNESCO (2002) points out that there exist gender disparities to educational opportunities in the developing countries among learners with HI.

The Kenya MoEST (2003) contends that the national education system has been characterized by gender disparities at the national level and across regions. In addition, learners with special needs are disadvantaged in that they enroll in school late compared to learners in the regular classes according to Republic of Kenya (2003). Lumumba (2009), in his findings on factors contributing to job satisfaction among teachers in special schools in Rift Valley Province, Kenya, argued that teaching/learning materials and facilities were dissatisfying to teachers impacting negatively on the learning process. Wamae (2003) in her research studied effects of SL mode of instruction on acquisition of English affixes by learners with HI in form two. The study was carried out in two schools for learners with HI which are located in Butere-Mumias District. The study comprised 16 girls from St. Angela’s and 6 boys from St. Martin’s secondary schools. This made a total of 22 learners and 8 teachers teaching English. This study used purposive sampling in getting schools used in the study. To elicit needed data, the researcher used signed sentences, filling in blanks, observation, questionnaires and video recording.

The data of the study were analyzed in prose form and presented in form of tables and graphic representation showing the percentage of learners who got affixes used in the study right. The findings of the study indicated that a SL mode of instruction that paid no attention to particular grammatical forms that negatively impact on learners’ acquisition of modern English. The mentioned researcher above carried out her study in secondary
school level, thus there is need to carry out a study at primary school level. The researcher was not specific on type of SL to be studied and further left a gap on KSL modes of instruction that may influence English language acquisition in primary school level.

Kenyan Sign Language and English have different grammatical rules. This may have varying effects on learners with HI on ability to acquire English language. Bar-Tzur (1999) states that, when interpreting a second language, an interpreter is faced with phonological, semantic, orthographic and syntactic challenges of a language. He observes that similar patterns are found in letters, prefixes, suffixes, conjunctions and verbs tenses.

Warnke (2007) adds that Kenya has turned a quick corner with the addition of KSL to examinable subjects in primary and secondary deaf education. While this is on one level a step forward, its implementation has been hastily and wrongheaded. Successful implementation requires thorough research into KSL and a precise understanding of role of KSL in the classroom. As it stands, there are teachers who have poor to modest fluency in KSL teaching from textbooks that treat KSL as a written language heavily tied to English, he concludes that the worst problem facing deaf people around the world is lack of proficiency in the writing of a hearing language. In her study Muiti (2010), Hindrances to effective learning of pupils with hearing impairments in Meru North District, Kenya; where she used a descriptive survey design. One special primary school and 22 units were sampled for the study, which represents 30% of the total population. Purposive and stratified random samplings were used for the particular special primary
school and units. Questionnaires, interviews and observation schedules formed the basic research instruments. The findings asserted that most head teachers and teachers were not trained in the use of KSL and hence were ineffective in communicating using Kenyan Sign Language. She suggested that all teachers in schools for learners with HI be trained in KSL because learners with HI learn just like their counterparts if given access to methods they need and the language they understand. From the study it is evident that the researcher dealt on broader areas that hinders effective learning of pupils with HI hence didn’t address on effects of KSL on acquisition of English language.

2.3 Integration of Kenyan Sign Language and English Language
Language is central in everything that we do because it is the means of communicating with others, thinking and learning (Schirmer, 2001). Even though children who are deaf or hard of hearing have the same cognitive ability to learn as their hearing peers, to achieve their linguistic potential they need to interact with adults and other children who consistently talk and/or sign with them. According to Goldin-Meadow and Mayberry (2001), reading is a complex skill that challenges most learners with hearing impairment, primarily because of the communication and language development delays. Acquisition of a first language and ongoing language development throughout early childhood and elementary school are necessary for individuals to become skilled readers. Many learners with HI learn to read at the same time they are learning to communicate and use language simultaneously and therefore, experience difficulties in synchronizing these processes at once (Courtin, 2000).
Like reading, writing can pose challenges for learners with HI. In fact, research suggests that the problems faced by learners with HI in mastering written English are even more formidable than those they encounter in developing reading skills (Moores, 2001). Problems that learners with HI often experience with writing have to do with the fact that writing is considered a secondary form of linguistic expression and thus highly dependent on a primary language system such as speech or sign, as a foundation. There are three commonly used approaches applicable to language acquisition by learners with HI, namely Manual, Oral-aural and Total communication.

William (2006) stresses that a child with hearing loss—especially a prelingual whose hearing loss of 90dB or greater is at a great disadvantage in acquiring English language skills. Hearing children typically acquire a large vocabulary and a knowledge of grammar, word order, idiomatic expressions, fine shades of meaning and many other aspects of verbal expression by listening to others and to themselves from early infancy stimulation. Learners with HI have lesser vocabularies when compared to peers with normal hearing because listening experience in infancy is critical for the development of both speech and language in young children and the gap widens with age (American Speech-Language Hearing Association (ASHA, 2001).

When two languages coexist in the same environment, there is often some mixing of systems. As expected, the dominant language will often have more effect on the minority language than vice versa. These generalizations apply to sign language situation. Sign language which coexists with spoken languages often borrows characteristics of the spoken languages in varying degrees. Valli and Lucas (1996) state that it is impossible
for any sign language to borrow from spoken language though borrowing is possible between one sign language and another. The two authors argue that because spoken languages do not have signed forms, sign languages cannot borrow spoken phonology. In Kenyan situation, all children are taught KSL yet lessons are taught in English. This integration helps to break the taboos associated with deafness and allows hearing and deaf children to study and play together. Like English language, KSL has tenses which show the time of an action or an event in a sentence. Different languages have different ways of indicating tenses. In KSL, tenses are indicated either at the beginning or at the end of a sentence (Ndegwa, 2008). Tenses can be marked in KSL in two ways. Using an imaginary timeline, the signer can indicate the tense either before or after the sentence. The imaginary timeline starts in front of the signer and continue to the back of the signer. The position determines the tense to be used. Signs in front indicate present and future tense, while signs that continue to the back indicate past tense.

**Examples:**

- FUTURE ME SCHOOL FINISH/ DOCTOR BECOME/
- PAST COMPUTER ME SEE NOTHING/

2.3.1 The Manual Approach (Manualism)
In Britain and America, Deaf community uses British sign language (BSL) and America Sign Language (ASL) respectively. Manual method or manualism is based on sign language using the hands orientations to communicate. The goal of this method is to provide a way for deaf people to interact with others without use of spoken language. Manual approach emphasizes on the importance of using sign language for communication. The proponents of manualism suggest that children who learn sign
language are able to communicate more fluently and more quickly than those who rely on speech (Christiana, 2006). Finger spelling is combined with signs to communicate, words that lack signs are usually finger-spelt. Signed language, gestures and signs are part of manual approach.

According to Calederon (2000), manual code for English is an artificial system. The purpose is to represent spoken English language visually. The end goal of using these systems is literacy. The rules are different from code to code. They all use English word order and they are signed while speaking simultaneously. There are different kinds of manual codes which include: Sign Exact English (SEE) which parallels the number of morphemes. SEE is a method of SL that signs words exactly as they are used in the spoken English language. The second manual code is Signed English (SE). This is also a system in which people speak and sign at the same time. English word order remains the same as if they were spoken. Contact sign is the third manual code entailing communication with a person who speaks a different language. It is a natural way to communicate such as when asking for food pointing to one’s mouth and pretending to eat. This type isn’t taught. The only purpose is to understand one another states (Calederon, 2000).

2.3.2 Bilingualism
This is an approach in the education of the learners with hearing impairments where two languages are simultaneously used for communication across curriculum. Teachers use Kenyan Sign Language to explain concepts to the learners during the lesson, while chalkboard summary and lesson notes are given in written English. Bilingualism is an
approach used to educate deaf children, which uses both the sign language of the deaf community and the spoken and written language of the hearing community. According to (Gregory et al, 2002), the goals of signed bilingualism are to enable deaf children to become bilingual and bi-cultural, and participate fully in both the hearing society and the “Deaf world”. This means that ASL is the primary language of instruction and that English is taught as a second language through reading and writing print. The goal of bilingual-bicultural programs is for the students to learn two languages (ASL and English).

Sign language and English should be used throughout the child’s schooling with high levels of competency and proficiency. The independence of sign language and English, and the transfer of skills between them should be encouraged. Priority is given to the development of literacy skills, (Gregory et al, 2002). According to Ndurumo (1986) Kenyan Sign Language is not only a different language from English but is also expressed via a different mode. English is expressed via speaking and writing. Kenyan Sign Language is signed and written, English-speaking people tend to develop inner speech that is for the most part similar to their spoken or outer speech. Writing is based on a persons’ inner speech.

2.3.3 Oral/Aural Approach
Oral/aural approach places emphasis on the use of speech, residual hearing and in some cases speech reading. A child with HI is supposed to understand others by making maximum use of residual hearing and support from amplification. He or she is also supposed to use speech reading to enhance understanding. Oralist approach proponents
believe that deaf children are best served by instructing through lip-reading, maximum use of residual hearing through amplification and auditory training, as well as articulation to improve speech (Vaani, 2010). William (2006) emphasizes that auditory training for your children with HI begins by teaching awareness of sound. Parents might direct their child’s attention to sounds such as a doorbell ringing or water running. They might then focus on localization of sound- for example, by hiding a radio which is on, somewhere in the room and encourage the child to look for it.

2.3.4 Signed English- Written English Approach
This is directly signed English (SE), Signed Exact English (SEE) and written English are used exclusively as media of communication across curriculum. In SEE, an English sentence is made visible by signing all the words, including affixes. According to (Patricia, 2010), SE is a specialized system of signing based on BSL with the addition of standardized markers (to indicate inflections, plurals, tenses) and generated signs, together with finger spelling to produce as accurately as possible the grammatical components of English. It is designed to be used as an aid to teaching English to learners with HI.

Ayoo (2004) in her study on morphosyntactic errors in written English of standard eight learners with HI; sought to identify and categorize morphosyntactic errors in learners with HI, with those of profoundly Deaf on the other. Error differences were also determined between the learners using SEE and those using KSL. The study similarly investigated the possible causes of these errors, and explored TC as possible pedagogic approach that was designed to enhance language competence of learners with HI.
The data comprise free compositions written by standard eight learners taken from four schools for the Deaf. The sample scripts for investigation were obtained by categorizing the compositions, according to readability, then into the type of SL used and finally according to the degree of HI. The scripts were analyzed using Error Analysis Theory. The findings of this study seem to suggest that written English of learners with HI has various morphosyntactic errors, especially concerning verb. The study also shows that the partially deaf have better English than profoundly deaf. From the study, it is evident that the researcher dealt with morphology and syntax and omitted phonology and semantics. Also, another gap noticed is inability to address how KSL mode of instruction can affect acquisition of English language.

2.4 Implication of Kenyan Sign Language on English Among Learners with Hearing Impairments

Interactions between the hearing and the deaf communities rarely run smoothly. There is a good deal of mutual distrust between the two groups making it difficult for even well-meaning hearing persons to successfully penetrate the deaf community as agents of positive change indicates Viehman (2005). The taskforce on Special Education (MoEST, 2003) established that there are approximately 4255 Special Needs Education (SNE) teachers trained in Kenya. When this number is weighted against 1.8 million learners with SNE, then the demand for trained SNE teachers becomes very high. The taskforce found that only 20% of teachers in SNE programs are trained in SNE, most of these SNE teachers lack the necessary proficiency in Kenyan Sign Language (KSL). Deafness is often divided into two categories, depending on whether or not an individual was deafened prior to or after learning spoken language: prelingual deafness and post-lingual
deafness. As a rule, Viehmann (2005) states that those who were prelingually deaf rely primarily on signed language for communication as it is their first language, whereas those with post-lingual deafness have access to at least spoken language.

Communication, speech and language sound like the same thing and are often used interchangeably in our daily conservations. Language is a socially shared code, a set of arbitrary symbols and rules that govern the combination of these symbols which are used to convey ideas, thoughts, emotions and intentions. Language includes speech but it can also be written or signed (Hartas, 2005). According to Ndegwa (2008), there are several factors affecting Kenyan sign language variations. The most obvious is geographical differences. People in different areas speak differently, schools, towns and tribes are prone to variations. Deaf culture is built within another existing culture. The deaf being a minority exists within the hearing community. They observe activities within the larger community and come up with related signs. Regional differences in a country where different activities are done differently in various regions, the signs for the same activity will be different. According to Avoke (2005), learners with HI can lead perfect normal lives with their families if communication is not difficult. The inability to communicate freely with others limits their choices of careers.

2.5 Summary
From literature reviewed, it emerges that KSL is a visual mode of communication and comprises finger spelling and signs which represent certain word concepts, objects and other similar attributes. KSL like any other language has its own sentence features and set of grammatical rules which is independent of any spoken language.
KSL is written by glossing it in a language that is understood and acceptable to a given deaf community. In the Kenyan situation, all children with deafness are taught KSL and lessons are taught in English. This integration is helping in breaking taboos associated with deafness and allows hearing and deaf children to study and play together. Many learners with HI learn to read at the same time they are learning to communicate and use language simultaneously.

English and KSL have different grammatical rules which may have varying effects on learners with HI on ability to acquire English language. These effects can be observed in letters, prefixes, suffixes, conjunctions, tenses and verbs. According to Avoke (2005), interaction between the hearing and the deaf community rarely run smoothly. Communication, speech and language sound like the same thing and are often used interchangeably in our daily conversations. Due to complexity in KSL, it may have serious implications on students graduating from different institutions. Deaf persons are expected to work and interact with the hearing communities both locally and internationally. Few people among the hearing are proficient in KSL, thus may negatively impact among the deaf persons.
CHAPTER THREE  
RESEARCH METHODOLOGY

3.0 Introduction
This chapter describes the following sub-sections; research design, variables, location of the study, target population, sampling technique and sample size. The research instruments, pilot study, data collection techniques, data analysis, ethical and logistical considerations.

3.1 Research Design
The purpose of this study was to analyze effects of KSL on acquisition of English language among learners with HI. The research design was a case study which employed both quantitative and qualitative approaches (Creswell 2003). The approaches are valuable in that they strengthen one another. Quantitative method allows study participation to provide response that reflects their particular reference frame, language and provides richer description that complements the information learned through quantitative means. The use of quantitative and qualitative methods is one of the triangulation methods (Patton, 2002).

3.1.1 Variables
i. **The independent variables** of the study were mode of instruction for HI learners, structures of KSL and English languages, effects and integration of KSL on acquisition of English language and its implication.

ii. Language acquisition mode among learners with HI was **dependent variables**.
3.2 Location of the Study
The study was carried out in Esageri School for the Deaf, Mogotio Sub-County, Baringo County. The school is located along Nakuru – Eldama Ravine Road. It is approximately 40km from Nakuru Town. This is the only school in the entire county that caters for learners with HI. The school enrolls learners from the entire country.

3.3 Target Population
The target population comprised 1 administrator, 12 teachers and 120 pupils of Esageri School for the Deaf. The target population was based on staff establishment and pupil enrolment records obtained in the year 2010.

3.4 Sampling Techniques and Sample Size
3.4.1 Sampling Technique
Simple random technique, using raffle design method was used where each pupil in the population was given equal chance of inclusion in the sample. The population of the pupils was 39 drawn from class 7 and 8. That is 20 females and 19 males. The researcher folded papers of equal sizes and wrote 13 pieces with “yes” on them. Female pupils picked one paper at a time. Those who picked “yes” were included in the study. The same procedure was repeated for the male pupils.

The study used both purposive and stratified simple random sampling to obtain the study sample. Purposive sampling was used to sample the school, the administrator and the teachers in the school as they have the required information with respect to the research objectives (Mugenda & Mugenda, 2003). The researcher had purposively targeted the subjects as they were reliable for the study (Kombo & Tromp, 2006). Learners were
grouped as boys and girls then simple random sampling was used to get a sample from each category.

### 3.4.2 Sample Size
According to Mugenda and Mugenda (2003), generally sample size depends on factors such as the number of variables in the study, the type of research design, the method of data analysis and size of accessible population. These researchers state that 30 cases or more are required for descriptive studies and ten per cent of the accessible population is enough. Esageri School for the Deaf was selected purposively, where the head teacher was chosen on the basis of administrative responsibility, teachers teaching both Kenyan Sign Language and English language in class 7 and 8 were purposively selected. This sample size represents 67% of the population which is acceptable sample size according to Mugenda and Mugenda (2003). Table 3.1 shows the distribution of the principal, teachers and pupils and the sample size which is determined proportionally who formed the sample.

<table>
<thead>
<tr>
<th>RESPONDENTS</th>
<th>POPULATION</th>
<th>SAMPLE SIZE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Principal</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Teachers</td>
<td>12</td>
<td>8</td>
</tr>
<tr>
<td>Pupils in classes 7&amp;8</td>
<td>39</td>
<td>26</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>52</strong></td>
<td><strong>35</strong></td>
</tr>
</tbody>
</table>

### 3.5 Research Instruments
The researcher used questionnaires, Observation checklists and interview guide for the purpose of gathering information from the respondents. These instruments were
constructed by the researcher with emphasis on; objectives of the study, type of sample and nature of research items.

3.5.1 Questionnaires
The researcher used two sets of questionnaires, the first contained seventeen items while the second had ten items. The questionnaires elicited information on the respondents’ perceptions and gave respondents more freedom to express their opinions and also made suggestions. Teacher’s questionnaires addressed all specific objectives and research questions using a 4 Likert Scale. Questionnaires were administered to the teachers and pupils from classes 7 – 8.

3.5.2 Observation Checklist
The researcher utilized observation checklist to record what he observed during data collection. Observation checklist was used to complement the questionnaires. The researcher, using an observation checklist carried out direct observation of teachers teaching KSL and English in a classroom situation for four days each lesson lasted for thirty five minutes. Using lesson observation schedule, the researcher assessed KSL and English language being taught in classes 7-8 and recorded the findings.

3.5.3 Interview Guide
Orodho (2009) describes an interview as a technique that may be used to allow researchers cater for individual differences. An interview guide made it possible to obtain data required to meet specific objectives of the study. The researcher prepared questionnaires comprising both structured and unstructured questions. The researcher
interviewed the school principal and this complemented data collected through observation and questionnaires.

3.6 Pilot Study
Once a questionnaire has been constructed, it should be tried out in the field to a selected similar sample not in the study (Orodho, 2004). This is aimed at testing the validity and reliability of the instruments. Pilot study was carried out in Iten School for the deaf in Elgeyo Marakwet County a month before the actual collection of data for the main study. This school did not take part in the main study. The subjects in the pilot study comprised 1 principal, 4 teachers and 14 pupils. Both Esageri and Iten schools for the deaf are mixed boarding schools which enroll learners with HI from all over the country. Piloting enabled the researcher to detect any flaws in the administration of the research instruments and hence helped validate the data collection tools. Piloting also assisted to improve the instruments where necessary.

3.6.1 Validity
Content validity was carried out through professional consultations with supervisors; this ensured that the items were clear to the participants; that they tested what they were meant to test and that the appropriate language was used. This was ensured through item analysis. Item analysis helped in ensuring that all the objective areas were addressed in the tools.

3.6.2 Reliability
The researcher did construct test items which during the pilot study of small sub-sample of the target population selected was administered the same test again to the same
subjects. The test-retest reliability was to measure the degree to which scores were consistent over time. The researcher administered one test and retest to achieve test-retest reliability. A correlation coefficient (r) of 0.75 was considered high enough to judge the reliability of the instrument.

3.7 Data Collection Techniques
Data were collected from the respondents through observation checklist and interview guide. The instruments were used to attempt to answer research questions on impact of KSL on English language acquisition. The researcher made three visits to Esageri School for the deaf. The first visit aimed at establishing cooperation from the school administration and staff. The second visit was for briefing and presentation of the questionnaires to the respondents. The third visit was meant to collect the questionnaires and carry out interviews. To supplement other instruments, observation checklist was used on the third day.

3.8 Data Analysis
After the fieldwork, the responses collected from questionnaires, observation checklist and interview guide were organized according to selected pertinent aspects of the study. Quantitative data was coded; quantified, categorized and generated for analysis of results using the Statistical Package for Social Sciences (SPSS) specifically the researcher used descriptive statistics. Qualitative data was analyzed according to the themes of the study. Findings were presented in form of tables, pie charts, bar graphs and histograms. The statistical tools used were frequencies data which were in line with stipulated objectives of the study.
3.9 Logistical and Ethical Considerations
The researcher did obtain an introduction letter from Dean Graduate School, Kenyatta University before administering research instruments in the field. The researcher made arrangements to get research authorization from the National Council for Science and Technology. Other considerations included assurance that the information provided was treated with confidentiality and it was used for the disclosed purposes. For ethical purpose, the researcher cultivated a good working relationship with the respondents; this hopefully elicited the desired response intended for the research
CHAPTER FOUR
DATA PRESENTATION, ANALYSIS AND DISCUSSIONS

4.0 Introduction
The purpose of the study was to analyze effects of Kenyan Sign Language on acquisition of English language. The study was conducted in Esageri School for the Deaf. This Chapter focuses on demographic information, teachers professional qualifications, Kenyan Sign Language and English language grammatical structures, effects of Kenyan Sign Language on English language acquisition, integration of Kenyan Sign Language and English language and implication of Kenyan Sign language on English language among learners with hearing impairments. The data are presented in tables of frequency distributions and percentages, pie charts, bar graphs and histograms. Analysis was carried out according to demographic information and research objectives.

4.1 Demographic Information of the Respondents
Demographic information was important since it gave the researcher the general overview of the teachers and learners at Esageri School for the Deaf. The researcher sought to find out the teachers and learners’ gender, learners’ age levels, teachers’ educational and professional levels, teachers’ experience and SNE course/training undertaken. The results are presented in figures and tables as follows:
Figure 4.1 shows that female teachers were 5(62.5%) while male teachers were 3(37.5%). Generally, female teachers were more than male teachers in the sample. From the interview conducted by the researcher, the head teacher indicated that: The school had been receiving more female teachers as compared to male teachers. He further noted that more female teachers had shown more interest in teaching the deaf learners as compared to their male counterparts.
Figure 4.2: Learners Gender

Figure 4.2 shows that there were 13(50%) boys and girls respectively who were drawn from standard 7 and 8. The results reveal equal representation of boys and girls in the study. The study did not concur with UNESCO (2002) report that revealed gender disparity in access to education opportunities in the developing countries. The Kenya MoEST (2003) contends that the national education system has been characterized by gender disparities at national level and across regions.
Figure 4.3: Learners age levels

Figure 4.3 shows that most learners were aged between 15 and 16 years representing 16 (61%) followed by those who were between 17 and 18 years at 7 (27%). Fourteen years and below were 3 (12%) only. Thus these are age disparities among the learners with HI. The disparities in age as stated by Adoyo (2004) who notes that most deaf children in Kenya join pre-primary classes (Nursery and infant classes) at the age of 5 and remain in those classes for two years. He further explains that a small percentage is identified late and therefore, starts school late. These findings concur with Republic of Kenya (2003) which established that learners with special needs enroll in school late compared to learners in the regular schools.
Figure 4.4: Teachers educational level

The researcher sought to establish the educational level of teachers teaching learners with HI in order to determine their ability to handle both English Language and Kenyan Sign Language. Figure 4.4 show that 5 teachers representing (62.5%) had KCSE/O’level education level. KACE level was 1(12.5%) while those that had degrees were 2(25%).

<table>
<thead>
<tr>
<th>Professional level</th>
<th>Frequency</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Certificate</td>
<td>___</td>
<td>___</td>
</tr>
<tr>
<td>Diploma</td>
<td>6</td>
<td>75</td>
</tr>
<tr>
<td>Graduate</td>
<td>2</td>
<td>25</td>
</tr>
<tr>
<td>Other</td>
<td>___</td>
<td>___</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>8</strong></td>
<td><strong>100</strong></td>
</tr>
</tbody>
</table>

Table 4.1: Teachers highest professional level

Results from Table 4.1 indicate that most teachers had diploma at 6 (75%) while those who were graduates were 2 (25%). This means that from the sample it was clear that most teachers had not advanced their education despite the fact that the government has
made it clear that teachers should further their grades in order to be able to handle emerging issues in special schools. This according to the researcher could have been contributed by teacher’s ages and other financial obligation such as paying of school fees for their children and supporting other members of their families.

<table>
<thead>
<tr>
<th>Experience</th>
<th>Frequency</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 – 5 years</td>
<td>5</td>
<td>62.5</td>
</tr>
<tr>
<td>6 – 10 years</td>
<td>3</td>
<td>37.5</td>
</tr>
<tr>
<td>11 – 15 years</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>8</strong></td>
<td><strong>100</strong></td>
</tr>
</tbody>
</table>

**Table 4.2: Teachers experience**

The researcher had sought to find out the duration the teachers in Esageri School for the Deaf had taught. Table 4.2 indicates that 5 (62.5%) of teachers had a teaching experience of between one year to five years while those who had experience of between six years to ten years were 3 (37.5%). Teaching experience usually has influence on communication approaches used to teach the child with HI and may also enhance more skills in the use of KSL. Teachers who are engaged to work with HI learners always learn sign language on the job and perfect their skill in communicating.
4.1.1 Duration of Training Obtained

<table>
<thead>
<tr>
<th>Course taken by teachers</th>
<th>Frequency</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Workshop</td>
<td>___</td>
<td>___</td>
</tr>
<tr>
<td>3 months course</td>
<td>___</td>
<td>___</td>
</tr>
<tr>
<td>Certificate</td>
<td>___</td>
<td>___</td>
</tr>
<tr>
<td>Diploma</td>
<td>6</td>
<td>75</td>
</tr>
<tr>
<td>Degree</td>
<td>2</td>
<td>25</td>
</tr>
<tr>
<td>Others</td>
<td>___</td>
<td>___</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>8</strong></td>
<td><strong>100</strong></td>
</tr>
</tbody>
</table>

Table 4.3: SNE course / training undertaken

The qualification and experience of teachers in Special Needs Education were of major concern. Table 4.3 shows that 6 (75%) of teachers had taken a diploma. Two teachers representing (25%) had a degree in SNE. The Taskforce on Special Needs Education (MoEST, 2003) established that there are approximately 4255 Special Needs Education (SNE) teachers trained in Kenya. When this number is weighted against 1.8 million learners with SNE then, the demand for trained SNE teachers becomes very high. The Taskforce found that only 20% of teachers in SNE programs are trained in SNE, however, most of these SNE teachers lack necessary proficiency in Kenyan Sign Language (KSL).

4.2 Kenyan Sign Language and English Grammatical Structures

The study sought to find out similarities between Kenyan Sign Language and English Language grammatical structures.
Table 4.4: Grammatical structures in KSL

Table 4.4 shows that 4 (50%) of the respondents strongly disagreed that grammatical structures in KSL and English are similar. Three teachers representing (37.5%) of respondents disagreed with this opinion. While one teacher representing (12.5%) of the respondents agreed that grammatical structures in KSL and English have similarities. William (2006) did not support this finding and states that American Sign Language (ASL) is a legitimate language in its own right rather than an imperfect variation of spoken language. Kenyan Sign Language is a visual-gestural language that has grammar of its own that does not follow the grammar of the spoken English language (Ndurumo, 2008).
4.3.1 Kenyan Sign Language Grammatical Structure Influence on English Language Acquisition

Figure 4.5: Grammatical structures in KSL have negative influence on English Language

Figure 4.5 shows that 6 (75%) of all respondents have strongly agreed that grammatical structures in KSL have a negative influence on English language acquisition. Two respondents representing (25%) of all respondents agreed with this opinion. This idea is supported by Gregory et al., (2002) who state that SL and English should be used throughout child’s schooling with high levels of competency. Further, the independence of both languages and the transfer of skills between them should be encouraged. Kenyan Sign Language is not only different language from English but also is expressed via a different mode. English Language is expressed via speaking and writing while KSL is signed and written.
4.3.2 Code-Switching to KSL from English Language

The study sought to establish on code-switching among learners with HI, the respondents were required to confirm whether learners code-switched to KSL during English language acquisition. Figure 4.6 indicates that 4 (50%) of the respondents strongly agreed that if English language acquisition is not checked, learners could easily code-switch to KSL while 4 (50%) agreed on the same. The implication of these data is that learners need to be encouraged to be proficient in both languages so as to master their usages properly. Patricia (2010) encourages frequent use of both languages in school. She argues that it’s through such practice that a child becomes proficient in KSL and English language. According to Patricia (2010), code-switching occurs when a speaker/signer alternates between two or more languages, or use language varieties.

Figure 4.6: Learners code-switch to KSL

The study sought to establish on code-switching among learners with HI, the respondents were required to confirm whether learners code-switched to KSL during English language acquisition. Figure 4.6 indicates that 4 (50%) of the respondents strongly agreed that if English language acquisition is not checked, learners could easily code-switch to KSL while 4 (50%) agreed on the same. The implication of these data is that learners need to be encouraged to be proficient in both languages so as to master their usages properly. Patricia (2010) encourages frequent use of both languages in school. She argues that it’s through such practice that a child becomes proficient in KSL and English language. According to Patricia (2010), code-switching occurs when a speaker/signer alternates between two or more languages, or use language varieties.
4.3.3 Effects of Glossing of KSL

<table>
<thead>
<tr>
<th>Response</th>
<th>Frequency</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strongly agree</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Agree</td>
<td>2</td>
<td>25</td>
</tr>
<tr>
<td>Disagree</td>
<td>4</td>
<td>50</td>
</tr>
<tr>
<td>Strongly disagree</td>
<td>2</td>
<td>25</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>8</strong></td>
<td><strong>100</strong></td>
</tr>
</tbody>
</table>

Table 4.5: Glossing of KSL has no effect on English language

Table 4.5, shows that 4(50%) of respondents disagreed with the opinion that glossing of KSL had effects on English language acquisition while 2(25%) of respondents strongly disagreed. Two teachers representing (25%) agreed that KSL had no effect on English language. Viehmann (2005) supports the finding by arguing that a certain category of the deaf have no problem with KSL and English use while a certain category would find that KSL has adverse effects on English language and vice versa. The head teacher said,

‘This happens when learners tend to write each and every work in English language by Glossing which is not acceptable in English language’.

4.3.4 Teaching / Learning Resources used to teach KSL in Schools

<table>
<thead>
<tr>
<th>Response</th>
<th>Frequency</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strongly agree</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Agree</td>
<td>1</td>
<td>12.5</td>
</tr>
<tr>
<td>Disagree</td>
<td>5</td>
<td>62.5</td>
</tr>
<tr>
<td>Strongly Disagree</td>
<td>2</td>
<td>25</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>8</strong></td>
<td><strong>100</strong></td>
</tr>
</tbody>
</table>

Table 4.6: Availability of Teaching and learning Resources to teach KSL
The researcher sought to find out the availability of the teaching and learning resources that are used to teach KSL in the school. From table 4.6, 5(62.5%) respondents disagreed that there were enough teaching and learning resources to teach Kenyan Sign Language in schools. Two teachers representing (25%) of respondents strongly disagreed that there were enough teaching and learning resources to teach KSL in schools. One teacher representing (12.5%) of respondents agreed with this opinion. The researcher was able to get more approval through interview with the head teacher, who said,

‘This posed a big challenge to learners as well as the teachers. It’s hard to implement proper learning when materials for the same are lacking in schools’

This information was more evident during observation carried out by the researcher. The data do explicitly show that there were not enough teaching and learning resources to teach KSL. MoEST, (2003) supports this finding that there were no books on Kenyan Sign Language. Second, the vocabulary used by deaf people was too basic for instructional purposes and consisted of numbers, pronouns, towns and other concrete signs.
4.3.5 Teaching/ Learning Resources to Teach English in Schools

Figure 4.7 shows that 3(37.5%) and 2(25%), strongly agreed and agreed that there were enough teaching and learning resources to teach English in schools respectively. Three (37.5%) disagreed with this opinion. It’s clear from the respondents that there were substantial resources to teach English language in schools. Lumumba (2009) differs with these findings in his research study on factors contributing to job satisfaction and dissatisfaction among teachers in special schools in Rift Valley, Kenya and argued that teaching/ learning materials and facilities were dissatisfying to teachers impacting negatively on learning process. The findings were supported by the head teacher who said:

“The school has enough teaching and learning resources to teach English language courtesy of Free Primary Education, which is bought by the school on yearly basis. Kenyan Sign Language books are not adequate since few books have been produced by the authors”.

Figure 4.7: Teachers’ responses on Teaching/Learning resources to teach English
The observation the researcher carried out in classes when teaching was in progress indicated that teachers used a variety of teaching and learning resources adequately when teaching English language but this did not happen during teaching of KSL.

### 4.3.6 Teachers proficiency in KSL

<table>
<thead>
<tr>
<th>Response</th>
<th>Frequency</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strongly agree</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Agree</td>
<td>3</td>
<td>37.5</td>
</tr>
<tr>
<td>Disagree</td>
<td>3</td>
<td>37.5</td>
</tr>
<tr>
<td>Strongly Disagree</td>
<td>2</td>
<td>25</td>
</tr>
<tr>
<td>Total</td>
<td>8</td>
<td>100</td>
</tr>
</tbody>
</table>

**Table 4.7: Teachers are qualified to teach KSL**

The data in table 4.7 show that 3(37.5%) of the respondents agreed that teachers were qualified to teach KSL. Three (37.5%) and 2(25%) of the respondents disagreed and strongly disagreed respectively that teachers were qualified to teach KSL in schools. The respondents indicated that most of the teachers who taught KSL were not proficient to handle KSL. This finding is supported by Warnke (2007) who says that successful implementation of KSL requires thorough research and precise understanding of the role of KSL in the classroom. As it stands, there are teachers who have poor to modest fluency in KSL teaching from textbooks that treat KSL as a written language heavily tied to English language. The findings concurs with Muiti (2010) in her study; Hindrances to effective learning of pupils with hearing impairments in Meru North District, Kenya; asserted that most head teachers and teachers were not trained in the use of KSL and hence were ineffective in communicating using KSL. She suggested that all teachers in
schools for learners with HI should be trained in Kenyan Sign Language because learners with HI learn just like their hearing counterparts if given access to methods they need and the language they understand.

4.3.7 Teachers Teaching KSL and English Language

<table>
<thead>
<tr>
<th>Response</th>
<th>Frequency</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strongly agree</td>
<td>1</td>
<td>12.5</td>
</tr>
<tr>
<td>Agree</td>
<td>5</td>
<td>62.5</td>
</tr>
<tr>
<td>Disagree</td>
<td>_</td>
<td>_</td>
</tr>
<tr>
<td>Strongly Disagree</td>
<td>2</td>
<td>25</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>8</strong></td>
<td><strong>100</strong></td>
</tr>
</tbody>
</table>

Table 4.8: Kenyan Sign Language teachers can teach English language

The study required the teachers to express their opinion on teaching of both KSL and English language. From table 4.8, it is clear that 5(62.5%) and 1(12.5%) of respondents agreed and strongly agreed that teachers teaching KSL could teach English language as well. Two teachers representing (25%) strongly disagreed with the opinion. The head teacher responded by saying,

‘The teachers are able to handle the two languages, because of inadequate number of teachers in Esageri School for the Deaf and KSL does not follow its own grammar and follows English Grammar thus teachers of English could handle both subjects.’

The observation carried out by the researcher indicated that teachers teaching KSL were also able to teach English language.
4.4 Effects of Kenyan Sign Language on English Language Acquisition

Figure 4.8: Effects of introducing KSL into school

This was intended to answer objective two; the researcher intended to determine effects of introducing KSL in the school setup from the respondents. Figure 4.8 indicated that 6(75%) of the respondents strongly disagreed that introduction of KSL in schools for the deaf had boosted learning while 2(25%) disagreed. Ndurumo (1986) proposed to the hearing impairment subject panel of Kenya Institute of Education to have a systematic sign language based on the developed Kenyan signs. Though this was accepted in 1988, lack of textbooks in Kenyan Sign Language and the fact that vocabulary used by deaf persons was too basic and for instructional purposes, made introduction of KSL into school for the deaf not to have an impact on learning.
4.4.1 Effects KSL in National Examinations

<table>
<thead>
<tr>
<th>Response</th>
<th>Frequency</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strongly agree</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Agree</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Disagree</td>
<td>6</td>
<td>75</td>
</tr>
<tr>
<td>Strongly disagree</td>
<td>2</td>
<td>25</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>8</strong></td>
<td><strong>100</strong></td>
</tr>
</tbody>
</table>

Table 4.9: Effects of introducing KSL in National Examinations

Table 4.9 shows that 6 (75%) of respondents disagreed that introduction of KSL in national examinations had improved performance while 2(25%) strongly disagreed. Warnke (2007) disagreed with the finding and cited the reason of hasty implementation, lack of thorough research into KSL and inadequate precise understanding of the role of KSL in the classroom. Kenyan Sign Language has been showing exemplary performance as a subject at the national examination level, however, this has not translated to better performance in other subjects.

4.4.2 The Effects of KSL on Fluency Compared to English Language

<table>
<thead>
<tr>
<th>Response</th>
<th>Frequency</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strongly agree</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Agree</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Disagree</td>
<td>5</td>
<td>62.5</td>
</tr>
<tr>
<td>Strongly disagree</td>
<td>3</td>
<td>37.5</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>8</strong></td>
<td><strong>100</strong></td>
</tr>
</tbody>
</table>

Table 4.10: Kenyan Sign Language on fluency compared to English language
Table 4.10 shows 5(62.5%) of respondents disagreed with the opinion that learners were more fluent in KSL as compared to English while 3(37.5%) strongly disagreed. Warnke (2007) states that due to the hasty implementation of the KSL into examinations there were teachers who had poor to modest fluency in KSL yet teaching from textbooks and treated KSL as a written language heavily tied to English, this means that KSL borrows mostly from English language grammar. He adds that the biggest challenge the deaf have around the world is the strong proficiency in the writing of a hearing language.

4.4.3 The Effects of KSL on Acquisition of English Language

![Figure 4.9: Kenyan Sign Language on acquisition of English language](image)

Figure 4.9 reveals that 4 (50%) of the respondents disagreed that learners wrote English exercises in KSL by glossing instead of writing in English structure while 3 (37.5%) strongly disagreed. One representing (12.5%) of the respondents agreed that learners wrote all English exercises in KSL instead of English. Kenyan Sign Language and English have different grammatical rules. This may have varying effects on learners with HI on ability to acquire English language. These findings were supported by Bar-Tzur
(1999) who states that when interpreting a second language, an interpreter is faced with phonological, semantic, orthographic and syntactic challenges of a language. He observes that similar patterns are found in letters, suffixes, conjunctions and verb tenses.

4.4.4 The Effects of KSL on Acquisition of English Language as Responded by Learners

![Figure 4.10: Kenyan Sign Language effects on acquisition of English language](image)

Figure 4.10 shows that 23(88%) agreed that learning KSL had interference with the way the pupils learnt English in a classroom and this was also supported by observation schedule the researcher carried out where he observed learners in standard 7 struggle to respond in English language lesson as opposed to KSL lesson. Three representing (12 %) of learners disagreed with this opinion that learning KSL interfered with learning English in class. This finding was supported by Wamae (2003) in her study who found those learners with HI do get challenges when switching from KSL to English.
4.4.5 Reasons why KSL interferes with learning of English in Classroom

<table>
<thead>
<tr>
<th>Response</th>
<th>Frequency</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. English grammar and punctuation are different from those in KSL</td>
<td>15</td>
<td>58</td>
</tr>
<tr>
<td>2. KSL uses capital letters as opposed to English.</td>
<td>4</td>
<td>15</td>
</tr>
<tr>
<td>3. KSL uses signs and gestures while English uses more of spoken words.</td>
<td>2</td>
<td>8</td>
</tr>
<tr>
<td>4. Some English words lack sign names</td>
<td>2</td>
<td>8</td>
</tr>
<tr>
<td>5. No response</td>
<td>3</td>
<td>11</td>
</tr>
<tr>
<td>Total</td>
<td>26</td>
<td>100</td>
</tr>
</tbody>
</table>

Table 4.11: Reasons why KSL interferes with learning English in Standard 7&8 classroom

Table 4.11 indicates that 15 (58%) of respondents agreed that English grammar and punctuation are different from that of KSL; 4 (15%) of the respondents indicated that KSL composition used capital letters as opposed to English composition, 2 (8%) were of the opinion that KSL used signs and gestures while English used more of spoken words whereas 2 (8%) stated that some English words lacked signed words. Subsequently, 3(11%) gave no response. This finding is supported by William (2006) who reveals that ASL in United States and Canada is a legitimate language in its own right rather than an imperfect variation of spoken English. He adds that because ASL has its own rules of phonology, morphology, syntax and pragmatics, it does not correspond to spoken or written English. Ndurumo (2008) affirms that sign language as a gestural language has
grammar of its own that does not follow the grammar of spoken language. VAANI (2010) stresses that sign language is a complete language with its own grammar, which is very different from the grammar of spoken language such as English.

4.4.6 The Effects of KSL on Acquisition of English Language and Interaction with Hearing Community

<table>
<thead>
<tr>
<th>Response</th>
<th>Frequency</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strongly agree</td>
<td>___</td>
<td>___</td>
</tr>
<tr>
<td>Agree</td>
<td>1</td>
<td>12.5</td>
</tr>
<tr>
<td>Disagree</td>
<td>3</td>
<td>37.5</td>
</tr>
<tr>
<td>Strongly disagree</td>
<td>4</td>
<td>50</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>8</strong></td>
<td><strong>100</strong></td>
</tr>
</tbody>
</table>

Table 4.12: Teachers’ response on effects Kenyan Sign Language on acquisition of English and interaction with hearing community

Data presented in Table 4.12 revealed that 4(50%) of the respondents strongly disagreed that a deaf person taught in KSL and English could easily interact with hearing community while 3(37.5%) disagreed. One representing (12.5%) of the respondents agreed with the same opinion. These findings concur with Hartas (2005) who states that language is a socially shared code, a set of arbitrary symbols and rules that govern the combination of symbols which are used to convey ideas, thoughts, emotions and intentions. Ndegwa (2008) adds that factors affecting KSL are several and include the geographical differences. People in different areas speak differently and schools, towns and tribes are prone to sign language variations according to the culture where the
language is being used. Deaf culture is built within another existing culture that is totally different from any other culture that uses spoken language.

4.4.7 Interaction with Hearing Community in KSL as Opposed to English

![Figure 4.11: Interaction with hearing in KSL as opposed to English by standard 7 & 8 pupils](image)

As presented in Figure 4.11, 19(73%) of the respondents felt that they were not free to interact with the hearing community who used English language while 7(27%) of respondents said that they were able to interact with the hearing who used English language. Goldin-Meadow and Mayberry (2001) support this finding by observing that acquisition of a first language and ongoing language development throughout early childhood and elementary school are very necessary for individuals to become skilled readers. Many learners with HI read at the same time they are learning to communicate
and use language simultaneously therefore, experience difficulties in synchronizing these processes at once as indicated by 73% of the respondents.

<table>
<thead>
<tr>
<th>Response</th>
<th>Frequency</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Hearing community depends on the spoken word/sound and pronunciation where KSL doesn’t apply</td>
<td>11</td>
<td>42</td>
</tr>
<tr>
<td>2. Hearing community is not comfortable with KSL when interacting.</td>
<td>6</td>
<td>23</td>
</tr>
<tr>
<td>3. Hearing community fear sign language for lack of communication skills.</td>
<td>4</td>
<td>15</td>
</tr>
<tr>
<td>4. KSL grammar and English grammar are not related</td>
<td>3</td>
<td>12</td>
</tr>
<tr>
<td>5. English is easy to use</td>
<td>2</td>
<td>8</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>26</strong></td>
<td><strong>100</strong></td>
</tr>
</tbody>
</table>

Table 4.13: Reasons by standard 7 & 8 pupils as to why it is not easy to interact with hearing community

Table 4.13 shows that 11 (42%) of respondents mentioned that they were not in a position to interact in KSL with hearing because hearing people depend on the hearing vocalized sounds, spoken word and good pronunciation as opposed to KSL. Six learners representing (23%) of respondents indicated that hearing people were not however, comfortable with the use of KSL to interact and were not conversant with signs in KSL. Four learners representing (15%) of respondents feared to interact with people who used KSL while using English. Three learners representing (12%) indicated that KSL grammar and English grammar were not related, 2 (8%) indicated that English language is easy to use. Valli and Lucas (1996) found that when two languages co-exist in the same
environment, there is often mixing of systems. As expected, the dominant language will often have more effect on the minority language than vice versa.

### 4.5 Integration of Kenyan Sign Language and English Language

#### 4.5.1 To Establish the Subject Liked Most by standard 7 & 8 pupils

![Pie chart showing percentage of learners who liked KSL and English](image)

**Figure 4.12: The subject liked most**

The researcher sought to know the subject most liked by the learners. Their responses in Figure 4.12 indicated that majority of the learners liked KSL lesson most 21(81%) while those who liked English were only 5 (19%). This was noted in lesson observation schedule that was carried out by the researcher in classes 7 and 8; the learners could answer English questions using KSL. Similar opinion was expressed by the head teacher in his interview by the researcher. The head teacher indicated that learners who used sign language as a mode of communication tended to use sign language frequently in class as compared to using English language.
4.5.2 Explanations given to Figure 4.12

<table>
<thead>
<tr>
<th>Response</th>
<th>Frequency</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. KSL has easy grammar to use while reading and writing</td>
<td>13</td>
<td>50</td>
</tr>
<tr>
<td>2. Communication is effective when using KSL</td>
<td>7</td>
<td>26</td>
</tr>
<tr>
<td>3. KSL uses signs for words</td>
<td>2</td>
<td>8</td>
</tr>
<tr>
<td>4. KSL sentences have easy language patterns to learn and use</td>
<td>1</td>
<td>4</td>
</tr>
<tr>
<td>5. English is easy to learn</td>
<td>1</td>
<td>4</td>
</tr>
<tr>
<td>6. No response</td>
<td>2</td>
<td>8</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>26</strong></td>
<td><strong>100</strong></td>
</tr>
</tbody>
</table>

Table 4.14: Affirm Responses of Figure 4.12 by standard 7 &8 pupils

The researcher sought to get more insight of reasons why KSL was most liked by the learners as compared to English language. From Table 4.14, 13(50%) respondents found KSL grammar easy to use while reading and writing while 7(26%) of respondents found communication effective when using KSL. Two representing (8%) of the respondents said that they used KSL signs for words and the same percentage was observed by those who never gave responses. These findings were supported by the observation checklist and lesson observation schedule carried out by the researcher in classes 7 and 8 respectively. Good scores in the learners’ work in KSL was also an indication that learners liked the subject most.
4.5.3 Introduction of KSL in Deaf Schools

The data in Figure 4.13 show that the respondents were split, 50% agreed and 50% disagreed with the statement that introduction of KSL in schools for the deaf would boost acquisition of English language. This was observed by the researcher during lesson observation where pupils in standard 8 seemed comfortable with sign language than standard 7. It could be because the pupils in standard 8 had used sign language for a longer time and could be more focused on their studies as it was an examination class. It could also be due to how teachers had concentrated on teaching KSL in the classes. Kenyan Sign Language is regarded as the mother tongue of the deaf persons and these could have contributed to the better performance in the use of the language among the learners with hearing impairment.

Figure 4.13: Teachers’ responses on assessment on how introduction of KSL in deaf schools can boost acquisitions of English
4.5.4 Difficulties Using English Tenses

![Pie chart showing 92% Yes and 8% No]

**Figure 4:14: Whether Standard 7 & 8 pupils had difficulties using English tenses**

From Figure 4.14, data indicated that 24 (92%) of respondents had difficulties using English tenses. This is supported by observations made by the researcher in school where he found that many learners had to struggle with English tenses in class as well as composition writing. Two representing (8%) of respondents had no difficulties at all and this small percentage was observed in class 8 where the researcher found a minimal number of learners participating in English class. Morres (2001) support these arguments that learners with HI often experience writing problems which are considered as a secondary form of linguistic expression thus highly dependent on primary language system such as speech or sign, as a foundation.
<table>
<thead>
<tr>
<th>Response</th>
<th>Frequency</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Irregular verbs are difficult in terms of spelling and Tenses</td>
<td>10</td>
<td>38</td>
</tr>
<tr>
<td>2. Have difficulties using past, present, future, verb &amp; tenses in a sentence</td>
<td>7</td>
<td>27</td>
</tr>
<tr>
<td>3. Difficulties remembering correct tense to use when writing English</td>
<td>7</td>
<td>27</td>
</tr>
<tr>
<td>4. English tense patterns in language are not same</td>
<td>1</td>
<td>4</td>
</tr>
<tr>
<td>5. No responses</td>
<td>1</td>
<td>4</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>26</strong></td>
<td><strong>100</strong></td>
</tr>
</tbody>
</table>

**Table 4.15: Explanations given by Standard 7 & 8 pupils**

Table 4.15 data indicate that 10 (38%) of learners find irregular verbs a great challenge to them especially where tenses and changing of spelling for certain verbs are involved. Seven representing (27%) of learners faced difficulties in using past, present and future tenses as well as remembering correct tense to use when writing English. The challenge was noted by researcher in observation carried out in class 7 and 8 respectively where learners had to struggle with assignments that concern English tenses. Changing words from present to past tense was a challenge; example ‘see-seed’, come-comed’. The learners thought that as indicated by the examples given by the English teacher all past must have an ending of –d and –ed. The findings are supported by KNAD (2001) which states that there are certain orders that can be used while others cannot. The most used being: SVO, SOV and OSV (S= SUBJECT, V= VERB; O=OBJECT). The SOV sign order seem the most preferred in KSL.
4.5.5 Problems in Answering Questions in English Language

The researcher had sought to find out the problems learners encounter in answering questions in English language. The response in Figure 4.15 indicated that 24(92%) of the learners had problems in answering questions in English language while 2(8%) of the learners said that they had no problems in answering questions in English language. The observation conducted by the researcher in class 7 and 8 affirmed the responses given by respondents in confirming whether they had difficulties in answering questions in English language. A sample of the learners’ exercise books confirmed the responses that were given. The books sampled showed that the learners faced challenges in answering questions in English and this was evident in comprehension tasks, where learners had difficulty in giving answers that required some explanation.
4.5.6 Types of Questions that are Difficult to Answer

<table>
<thead>
<tr>
<th>Response</th>
<th>Frequency</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Interrogative questions</td>
<td>8</td>
<td>31</td>
</tr>
<tr>
<td>2. Questions that need description</td>
<td>4</td>
<td>15</td>
</tr>
<tr>
<td>3. Comprehensive questions</td>
<td>2</td>
<td>8</td>
</tr>
<tr>
<td>4. Questions that need explanation</td>
<td>7</td>
<td>27</td>
</tr>
<tr>
<td>5. Discussion questions</td>
<td>1</td>
<td>4</td>
</tr>
<tr>
<td>6. Sound related questions</td>
<td>1</td>
<td>4</td>
</tr>
<tr>
<td>7. No responses</td>
<td>3</td>
<td>11</td>
</tr>
<tr>
<td>Total</td>
<td>26</td>
<td>100</td>
</tr>
</tbody>
</table>

Table 4.16: To establish types of questions that standard 7 & 8 pupils find problems in answering

The study intended to establish the types of questions that the respondents had difficulty in answering. Table 4.16 reveals that 8(31%) of respondents had problems answering interrogative questions in English language while 7(27%) of respondents had challenges with questions that need explanation, 4(15%) of the learners had difficulty in questions that need descriptions while 3(11%) of respondents did not give responses. One representing (4%) had difficulty in questions that needed discussion and questions related to sound respectively. These challenges were noted by the researcher in lesson observation schedule carried out in classes 7 and 8 and were also expressed by head teacher during the interview. The head teacher said:

“Most learners with hearing impairment don’t like interrogative questions conducted in English language as they are unable to answer them conclusively due to communication barrier facing them. Questions in English of comprehensive nature, descriptive and those that require explanation proof to be a hard task to the learners in this school”.
4.5.7 Use of KSL by teachers to teach all subjects

![Figure 4.16: Standard 7 & 8 pupils’ response on whether KSL should be used by teachers to teach all subjects in the classroom](image)

This was meant to address objective four, the researcher sought to find out learners’ opinions as to whether teachers should teach all the subjects in KSL. Figure 4.16 shows that 23 (88%) of respondents agreed that KSL should be used by teachers to teach all subjects while 3 (12%) of the respondents did not support the opinion. The head teacher explained that KSL was a better mode of instruction and could serve as a good medium of instruction because it enhances the learners’ understanding and is child-centered. This was observed by the researcher in the lesson observation schedule whereby most teachers teaching other subjects opted to make content presented to the learners simpler through the use of KSL. Warnke (2007) holds the same idea. He says that KSL should be examinable in primary and secondary levels; his opinion has come to be a reality currently in Kenya since KSL is an examinable subject at the same time a national
language. In Kenya learners with HI need a lot of exposure to Kenyan Sign Language for cognitive development and for language acquisition.

### 4.6 Future Implication of Kenyan Sign Language on English Language Among Learners with HI

<table>
<thead>
<tr>
<th>Response</th>
<th>Frequency</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strongly agree</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Agree</td>
<td>1</td>
<td>12.5</td>
</tr>
<tr>
<td>Disagree</td>
<td>3</td>
<td>37.5</td>
</tr>
<tr>
<td>Strongly Disagree</td>
<td>4</td>
<td>50</td>
</tr>
<tr>
<td>Total</td>
<td>8</td>
<td>100</td>
</tr>
</tbody>
</table>

Table 4.17: Teachers’ response on employment opportunity among deaf persons

This question intended to answer objective four in the research. The researcher had sought to find out limitations posed by KSL on employment opportunities among the deaf persons in Kenya. Table 4.17, indicates that 4(50%) and 3(37.5%) of respondents strongly disagreed and disagreed respectively that KSL could easily limit employment opportunities among the deaf persons in Kenya. One representing (12.5%) of the respondents agreed that KSL easily limit employment opportunities among deaf persons in Kenya. According to MoEST (2003), the learners with SNE were 1.8 million. Such number requires SNE trained teachers. Once learners are equipped with adequate skills, their opportunity for employment is enhanced. Avoke (2005) concurs with this when he states that learners with HI can lead perfect normal lives with their families if communication is not difficult. The inability to communicate freely with others limits their choices of careers.
4.6.1 Recognition of KSL Internationally as a Growing Language

![Bar chart showing teachers' response on Recognition of KSL internationally]

**Figure 4.17: Teachers’ response on Recognition of KSL internationally**

The data from Figure 4.17 show that 4(50%) and 3(37.5%) of the respondents strongly agreed and agreed respectively that Kenya Sign Language as a growing language may be recognized internationally. One representing (12.5%) of the respondents strongly disagreed. The employers have for a long time been concerned with English proficiency as opposed to KSL proficiency as far as job market qualification is concerned. This is due to the complexity of KSL and unwillingness of the hearing community to learn KSL with an objective of using it with the deaf community at the place of work.
4.6.2 Feelings of Respondents that KSL is one of the National Languages in Kenya

<table>
<thead>
<tr>
<th>Response</th>
<th>Frequency</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. All people should learn KSL for interaction with deaf person</td>
<td>13</td>
<td>50</td>
</tr>
<tr>
<td>2. KSL should be used to teach all subjects and setting of national</td>
<td>10</td>
<td>38</td>
</tr>
<tr>
<td>examinations for deaf persons</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. All schools in Kenya should use KSL</td>
<td>1</td>
<td>4</td>
</tr>
<tr>
<td>4. KSL should be a national language</td>
<td>2</td>
<td>8</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>26</strong></td>
<td><strong>100</strong></td>
</tr>
</tbody>
</table>

Table 4.18: Standard 7 & 8 pupils’ response on Kenyan Sign Language being a national language

The researcher sought to establish the feelings of the learners on the current status of KSL as a national language in Kenya. From table 4.18, 13(50%) of the respondents felt that all people should learn KSL for interaction with deaf persons, 10 (38%) of the respondents felt that KSL should be used to teach all subjects and setting of national examinations for deaf persons. A response of 1(4%) felt that all schools in Kenya should use KSL. While 2 (8%) of respondents expressed that KSL should be made a national language. Because of uniqueness of KSL, the Constitution of Kenya (2010) and the persons with Disability Act of 2003 recognize it at same level with the national, Kiswahili, and the official, English, languages in Kenya. These arguments were expressed by the head teacher during his interview with the researcher where he supported KSL status as a national language indicating that many hearing persons may learn the language thus assist to break the communication barrier that exists between the hearing and the deaf communities.
CHAPTER FIVE
SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

5.0 Introduction
In this chapter, summary, implications, conclusions, recommendations and suggestions for further research were discussed. The study was conducted in Esageri School for the Deaf in Mogotio District of Baringo County, Kenya. The purpose of the study was to analyze how the use of Kenyan Sign Language is affecting the acquisition of English Language in Esageri School for the Deaf.

The study sought to:

i. Find out how KSL grammatical structures have influence on English language acquisition.

ii. Establish effects of KSL on acquisition of English language.

iii. Determine teachers’ ability to cope with the integration of KSL and English language.

iv. Assess the future implication of KSL on acquisition of English language among learners with HI.

5.1 Summary of the Findings
5.1.1 Demographic Information
The findings of the study indicated that there were more female teachers than male teachers in Esageri School for the Deaf. The researcher purposively selected 13(50%) boys and girls drawn from classes 7 and 8 in order to ensure equal participation in the study. Most learners in the school had an age range of between 15 and 16 years representing 61% of the total population of the learners in the school. Other learners with
HI fell in the age range of between 17 and 18 indicating that they enrolled in school late as compared to their hearing counterparts in regular schools. Teachers’ educational and professional level indicated variance; few teachers had attained degrees while majority (62%) had KCSE/O’level level of education. Also 75% of the respondents indicated that teachers had attained diploma while 25% had attained graduate level in the teaching profession. This showed that the teachers had upgraded their qualifications through further studies. Most teachers in Esageri School for the Deaf had a teaching experience of between one year and five years, while 35.5% of the teachers had a teaching experience of six years to ten years. Majority of the teachers had also attended Special Needs Education (SNE) courses and trainings ranging from certificate to degree level which was necessary in KSL proficiency.

5.1.2 Kenyan Sign Language and English Grammatical Structures
The study found that KSL has different grammatical structures from that of English language. In this regard, KSL is a visual-gestural language that has grammar of its own that does not follow the grammar of spoken English. For this reason, KSL has negative influence in English language acquisition. Respondents strongly agreed that during English language acquisition learners code-switch to KSL. The teachers stated that learners need to be encouraged to be proficient in both languages so as to master their use properly. Glossing was established to affect English language acquisition this was evident during lesson observation schedule, the researcher established that glossing of words was identified in English lessons. For the purpose of adequate teaching/learning resources is necessary, English language in the findings indicated to have enough teaching/learning, resources as opposed to KSL. These findings were further complicated by inadequate
qualified teachers to teach KSL in the school. Teachers teaching KSL were also teaching English language in the school.

5.1.3 Effects of Kenyan Sign Language on English Language Acquisition

The study established that introduction of KSL had not boosted learning in schools for HI. This was displayed in the minimal performance in the Kenya National Examination (KCPE). Exemplary performance was realized in KSL which didn’t translate to other subjects. Respondents indicated that KSL had impacted negatively on English language fluency; learners wrote KSL instead of English, both languages had different grammatical rules. For example; glossing and use of signs and gestures in KSL whereas English uses spoken words. The deaf taught in KSL according to the study could not easily interact with the hearing community. Reasons given included; lack of communication skills, hearing persons depend on spoken words while the deaf person depend on signs.

The outcome of the stated effects included; low esteem among learners with HI and lack of competition between them and their hearing counterparts. This had resulted in withdrawal of learners with HI from academic fields and entire social interactions.

5.1.4 Integration of Kenyan Sign Language and English Language

With reference to integration of KSL and English language, 81% of the learners in Esageri School for the deaf preferred KSL as a mode of communication. This was supported by the head teacher and was evident during the lesson observation schedule carried out by the researcher. Learners cited easy grammar while reading and writing, effective communication in KSL, and use of signs and easy language patterns. Teachers expressed hope that introduction of KSL in schools for the deaf will boost acquisition of
English language. Hindrance in integration of the two languages was as a result of: irregular verbs in terms of spelling and tenses, difficulty using past, present and future tenses in a sentence. Learners faced challenges in answering interrogative, descriptive, comprehensive, discussion and sound related questions. Lastly, learners agreed with the opinion that teachers should use KSL to teach all subjects.

5.1.5 Future Implication of Kenyan Sign Language on English Language Among Learners with HI
The study found that KSL easily limits employment opportunities among deaf persons in Kenya. Employers for a long time had been concerned with English proficiency as opposed to KSL proficiency as far as job market is concerned. Respondents rated the status of KSL as a regional language that may not be recognized internationally. In spite of that respondents supported the recognition of KSL by the constitution of Kenya as one of the national languages, they were of the opinion that all hearing persons should learn KSL for easy interaction and that all subjects be set using KSL by the Kenya National Examinations Council (KNEC). Kenyan Sign Language should be used in all schools in Kenya since this eliminates barriers associated with learners with HI, improve performance and enhances self-esteem among learners with HI.

5.2 Conclusion
The study has shown that KSL has different grammatical structures from that of English language; it has grammar of its own that does not follow the grammar of spoken English. On the effects of Kenyan Sign Language on acquisition of English language the study established that introduction of KSL has not boosted learning in schools for the learners with HI. This was displayed in minimal performance in the Kenya National Examination
Exemplary performance was realized in KSL which didn’t translate to other subjects. With reference to integration of KSL and English language most learners in Esageri School for The Deaf preferred KSL as a mode of communication. Learners cited easy grammar while reading and writing, effective communication in KSL and use of signs and easy language patterns. Hindrance in the integration of the two languages was as a result of: irregular verbs in terms of spellings and tenses, difficulty using past, present and future tenses in a sentence. Both teachers and the learners agreed that KSL should be used to teach all subjects in schools for the learners with HI. The study concludes that future implication of KSL on English language among learners with HI easily limits employment opportunities among the deaf persons in Kenya since employers are concerned with English proficiency as opposed to KSL proficiency as far as job market is concerned. Finally Kenyan Sign Language should be used in all schools in Kenya since this eliminates barriers associated with learners with HI, improve performance and enhances self-esteem among learners with HI.

5.3 Recommendations
The following are recommendations made from the findings of this study:

i. During English language lesson, learners with hearing impairments give their answers in KSL and it’s from this ground that a major concern should be put in place for the learners because some may be slow or moderate in switching from English to KSL, teachers may find this as a challenge towards achievement of their set objectives.
ii. Some of English words are not a concern for the teachers because learners may be left behind in learning lesson and hence fail to grasp concepts in the lesson in session. Teachers need to be trained and be conversant with such challenges.

iii. Since KSL and English do challenge learners with hearing impairments, learners with HI should be encouraged to be conversant with KSL as their mother tongue to avoid confusion or mixing up.

iv. More teachers should be trained in KSL to equip them with adequate skills for effective teaching of KSL and English language.

v. The Ministry of Education, Science and Technology should ascertain teachers’ preparedness to teach both KSL and English language in schools for the deaf in Kenya.

5.4 Areas for Further Research

- A study is required to determine effectiveness and competence of teachers in teaching learners with HI.
- A study should be done to determine the relationship between signs and mastery of the content among learners with HI in Kenya.
- A study should be carried out to establish parents’ perception towards use of KSL by their children in Kenya.
- Further investigation is required to determine the relationship between the use of KSL in classes for learners with HI and performance at Kenya Certificate of Primary Education.
- A study need to be carried out by teachers who handle learners with hearing impairments, this is mostly on the area of KSL.
- Perception of communities towards educational needs for learners with hearing impairment should be established through further research by the teachers teaching these learners.
REFERENCES


inference: John Wiley and Sons.


APPENDIX A

QUESTIONNAIRE FOR THE TEACHERS

Kindly answer all questions by ticking (✓) the appropriate response box. Do not indicate your name. Any information you give will be treated with total confidentiality and will be used for research purpose only.

SECTION A: BACKGROUND INFORMATION

1. What is your gender?  Male  Female

2. What level of education have you attained so far?
   a) KCSE/O-LEVEL
   b) KACE/O-LEVEL
   c) Degree

3. What is your highest professional qualification?
   a) Certificate
   b) Diploma
   c) Graduate
   d) Others (specify) ________________________________

4. How many years of experience do you have in school for the deaf?
   a) 1---5 years
   b) 6---10 years
   c) 11---15 years
   d) 16 years and above
5. Which of the following special needs education courses or training have you undertaken?
   a) Workshop
   b) Three months course
   c) Certificate course
   d) Diploma course
   e) Degree course
   f) None of the above
   g) All the above

SECTION B:

In this section, kindly circle your best response on the following statements.

Responses are as follows:
   a) SA—Strongly agree—circle 4
   b) A—Agree—circle 3
   c) D—Disagree—circle 2
   d) SD—Strongly disagree—circle 1

STATEMENTS
SA  A  D  SD

1. Introduction of KSL in schools for the deaf has boosted learning
   4  3  2  1

2. Since introduction of KSL national exams have improved
   4  3  2  1
3. Learners are more fluent in KSL as compared to English
   4  3  2  1
4. Learners write English composition in KSL and English
   4  3  2  1
5. A deaf person who can easily interact in KSL and English can easily interact with hearing community
   4  3  2  1
6. Grammatical structures of KSL and English language are similar
   4  3  2  1
7. Grammatical structures of KSL have negative influence on English language acquisition
   4  3  2  1
8. If English language acquisition is not keenly checked, learners can easily code-switches to KSL
   4  3  2  1
9. Closing of KSL has no effect in English language acquisition
   4  3  2  1
10. There is enough teaching and learning resources to teach Kenyan sign language in your school
    4  3  2  1
11. Teaching and learning resources are enough to teach English language in your school
    4  3  2  1
12. Teachers are not qualified to teach KSL in schools for learners who are deaf
    4  3  2  1
13. Learners like KSL as compared to English language
    4  3  2  1
14. Teachers teaching KSL can also teach English language
   4 3 2 1

15. Introduction of KSL in schools for learners who are Deaf will boost acquisition of English Language
   4 3 2 1

16. Kenyan Sign Language can easily limit employment opportunities among the persons who are deaf in Kenya
   4 3 2 1

17. Kenyan sign language is a growing language which may be recognized internationally
   4 3 2 1
APPENDIX B

STUDENTS QUESTIONNAIRE

NAME________________ GENDER _________ AGE_______ CLASS_________

1. How many pupils are in your class?
   Boys _____ Girls _______

2. Do you think learning KSL has interference with how you learn English in class room?
   Yes   No
   If yes, explain
   __________________________________________________________
   ___________________________________________________________________

3. Are you in position to interact with the hearing people who use English language as opposed to KSL?
   Yes   No
   Briefly explain the above answer_____________________________________
   __________________________________________________________

4. Which mode of communication do you use in class when learning English and KSL?
   Manual approach   Oral approach
   Signed English   Total communication

5. Do you have difficulties using English tenses?
   Yes   No
   If yes explain why__________________________________________________
   __________________________________________________________
6. Which letters do you use to write your English composition in class?
   Capital letters □  Small Letters □  mixed letters □

7. (a) Which subject do you like most? KSL □  English □
    (b) If KSL why? ____________________________________________

8. (a) Do you have problems answering questions in English language?
    Yes □  No □
    (b) If yes what kind of questions? ________________________________

9. (a) Do you think KSL should be used by teachers to teach all the subjects in the classroom?
    Yes □  No □

10. What are your feelings now that KSL is one of the national languages in Kenya?
    __________________________________________________________________
    __________________________________________________________________
    __________________________________________________________________
    __________________________________________________________________
APPENDIX C

OBSERVATION CHECK LIST

1. Category of the school  Public [ ]  Private [ ]

2. When learning of English is in progress how do learners with hearing impairments
   Answer questions  Using English [ ]  Using KSL [ ]

3. Are there noticeable effects of KSL seen during English language learning in classes
   observed taught by the teachers?
   Yes [ ]  No [ ]
   Give your opinions to the response given _______________________________________

4. Are all words signed by the teachers when teaching English?  Yes [ ]  No [ ]

5. Are the same teachers teaching KSL also teach English language?
   Yes [ ]  No [ ]

6. In your own observation which language seems to be liked most by learners with
   hearing impairments? KSL [ ]  English [ ]
   Explain the above response ____________________________________________
1. When was the school started?

2. Since the introduction of KSL as a mode of instruction what is the current situation of English language acquisition in the school?

3. How can KSL integrate with English language in the process of learning?

4. What is the current enrolment of your school?

5. Which mode of communication do children prefer using when interacting with the Teachers?
   - Oral □
   - Manual/Signing □
   - Total communication □

6. What are the possible challenges that may face learners with hearing impairments once they interact with hearing community as far as English is concerned?

7. Explain the school performance in KSL and English language

8. What are the challenges facing teaching and learning of both KSL and English Language?

9. What challenges are faced by the teachers teaching both KSL and English language?

10. Explain way forward as far as KSL and English acquisition is concerned
APPENDIX E

LESSON OBSERVATION SCHEDULE

Class-----------------------------
Time-----------------------------
Roll-------------------------------
Topic-----------------------------

1. (a) State the level of participation in both Kenyan sign language and English

(b) How do the learners write English composition? Mixed letters □ In KSL □ In English □

2. (a) Do learners answer English questions in KSL? Yes □ No □
(b). what mode of communication do teachers use in class?
   Manual approach □ Oral/Aural approach □
   Signed English □ Total communication □

3. (a) Is the sitting arrangement adequate for carrying the lesson? Yes □ No □
   (b).Is the teacher well prepared to carry out the lesson? Yes □ No □
   (c).Are the teaching/learning resources adequate for the lesson in progress?
      Yes □ No □
      If no, Explain_____________________________________________________

4. State noticeable effects of KSL in an English language lesson____________________
   ________________________________________________________________________
APPENDIX F

KENYATTA UNIVERSITY GRADUATE SCHOOL

KENYATTA UNIVERSITY
GRADUATE SCHOOL

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

P.O. Box 43844, 00100
NAIROBI, KENYA
Tel. 8710901 Ext. 57530

Our Ref: E55/20132/2010
DATE: 14th July, 2012

The Permanent Secretary,
Ministry of Higher Education, Science & Technology,
P.O. Box 30040,
NAIROBI

Dear Sir/Madam,

RE: RESEARCH AUTHORIZATION ABEL KILANYA — REG. NO.
E55/20132/2010

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

Mr. Kilanya intends to conduct research for a proposal entitled, “Effects of Kenyan Sign Language in Acquisition of English Language: Study of Esageri School for the Deaf, Mogotio, Baringo County, Kenya.”

Any assistance given will be highly appreciated.

Yours faithfully,

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

19 JUL 2012
APPENDIX G

RESEARCH AUTHORIZATION

NATIONAL COUNCIL FOR SCIENCE AND TECHNOLOGY

Our Ref: NCST/RCD/14/012/1294

Abel Kilanya
Kenyatta University
P.O.Box 43844-00100
Nairobi.

Date: 20th September 2012

RE: RESEARCH AUTHORIZATION

Following your application for authority to carry out research on “Effects of Kenyan sign language in acquisition of English language: Study of Esageri school for the deaf, Mogotio, Baringo County, Kenya,” I am pleased to inform you that you have been authorized to undertake research in Baringo County for a period ending 31st December, 2012.

You are advised to report to the District Commissioners and the District Education Officers, Baringo County before embarking on the research project.

On completion of the research, you are expected to submit two hard copies and one soft copy in pdf of the research report/thesis to our office.

DR M.K. RUGUTT, PhD, HSc.
DEPUTY COUNCIL SECRETARY

Copy to:

The District Commissioners
The District Education Officers
Baringo County.
APPENDIX H
RESEARCH PERMIT

THIS IS TO CERTIFY THAT:

Prof./Dr./Mr./Mrs./Miss/institution
Abel Kilanya
of (Address) Kenyatta University
P.O.Box 43944-00100, Nairobi,
has been permitted to conduct research in

Location
District
Baringo
County

on the topic: Effects of Kenya sign language in acquisition of English language: Study of Esage school for the deaf, Mogotio, Baringo County, Kenya,


CONDITIONS

1. You must report to the District Commissioner and the District Education Officer of the area before embarking on your research. Failure to do that may lead to the cancellation of your permit.
2. Government Officers will not be interviewed without your agreement.
3. No questionnaire will be used unless it has been approved.
4. Excavation, filming and collection of biological specimens are subject to further permission from the relevant Government Ministries.
5. You are required to submit at least two (2)/four (4) bound copies of your final report for Kenyans and non-Kenyans respectively.
6. The Government of Kenya reserves the right to modify the conditions of this permit including its cancellation without notice.

Rep. of Kenya
RESEARCH CLEARANCE PERMIT

GPK6d5553mt10/2011
(CONDITIONS—see back page)