

**THE INFLUENCW OF SELECTED FACTORS ON ACADEMIC PERFORMANCE OF
DEAF STUDENTS IN ENGLISH COMPOSITION IN SECONDARY SCHOOLS IN
KENYA**

BY

OYIER RUTH AWINO

**A THESIS SUBMITTED IN PARTIAL FULFILMENT OF THE REQUIREMENTS
FOR THE DEGREE OF MASTER IN SPECIAL NEEDS EDUCATION**

DEPARTMENT OF SPECIAL NEEDS EDUCATION

MASENO UNIVERSITY

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DECLARATION

DECLARATION BY THE CANDIDATE

This thesis is my original work and has never been presented for any degree in any other University.

.....

.....

OYIER RUTH AWINO

DATE

PG/MED/0070/13

DECLARATION BY SUPERVISORS

This thesis has been submitted for examination with our approval as University Supervisors.

.....

.....

PROF. PETER ORACHA

DATE

Department of Special Needs Education

Maseno University

.....

.....

DR. WERE MICHAEL

DATE

Department of Special Needs Education

Maseno University

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DEDICATION

To my parents, Philip and the late Alger, who oriented me to the world of education and instilled in me its value.

And to

My late grandmothers Perpetua and Edith, who planted in me moral values concerning the way to God and the walk He demands.

ABSTRACT

English is a key and compulsory subject in secondary school curriculum in Kenya. The performance of students in schools for the Deaf in English in Kenya Certificate of Secondary Education, (K.C.S.E) has been below average. In the years 2010-2015, students' registered mean score of 3.45, 3.0, 2.4, 3.7 and 3.17 respectively, out of a mean of 12, which indicated a "D" Grade and below average in Kenyan grading system. Although theories have suggested that the selected factors could be influencing the performance, no empirical studies have been carried out to ascertain the thinking. The purpose of this study was to investigate the extent to which the selected factors influenced Deaf Students performance in English Composition in Secondary Schools in Kenya. The factors were; Age at onset of deafness, Availability and use of teaching and learning resources, Degree of hearing loss and Teaching and learning strategies. Objectives of the study were to determine the extent to which age at onset of deafness; Teaching and Learning Resources; degree of hearing loss; and teaching and learning strategies influenced Deaf students' performance in English Composition in K.C.S.E. The study was based on a Conceptual framework showing performance in English Composition as the Dependent Variable, attitude of teacher and learners, Economic status of parents and IQ of learners as intervening variable while the selected factors as the Independent Variables. Descriptive and Correlational research designs were used in this study. The study was done in five secondary schools for the Deaf. Target population was 5 principals, 9 teachers and 142 Deaf students. Saturated sampling technique was used to select 4 Principals, 8 teachers and 127 students. Data collection tools were Questionnaires, interview and observation schedules. Reliability of the instruments was ascertained through test re-test through a pilot study on one of the schools which was not part of the study. A coefficient of 0.75 indicated reliability of the student questionnaire and document analysis Guide. The other instruments were presented to experts in Special needs Education department to ascertain appropriateness, consistency, content and face validity. Data Analysis was carried out using Descriptive statistics, means, graphs and percentages. Pearson's correlation coefficient was calculated at $p \leq 0.05$. Qualitative data was organised into themes and sub themes and reported. P- Value was found to be 0.000 discarding the null hypothesis. The study established that age at onset of deafness had moderately strong positive influence on performance in English composition, $r=0.363$, $r^2 =13\%$ Availability and use of resources had very weak positive influence on learners performance in composition writing $r=0.07$. $r^2=0.49\%$ Degree of hearing loss had moderately strong negative influence on performance in English composition, $r= -0.38$. $r^2 =15\%$, Teaching and learning strategies had a very strong positive influence on the learners level of competence in composition writing, $r=0.93$, $r^2 =86\%$. The study established that, age at onset of deafness, availability and use of resources, teaching and learning strategies had positive influence on performance from moderate to a very large extent while degree of hearing loss had moderate negative influence on performance in English composition. The study recommended creation of instruments to aid teachers in setting objectives for their learners based on their varied learning needs. Restructuring of the syllabus, use of more visual aids, Curriculum adaptation and use of varied visual learning and teaching strategies. Make K.S.L. compulsory in all schools and colleges. The findings of this study may be useful to the ministry of education, K.I.C.D, English teachers, Parents and QASO in the improvement of performance of Deaf Students in English Composition.

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LIST OF ACRONYMS AND ABBREVIATIONS

A.S.L	-	American Sign Language
B.S.L	-	British Sign Language
EFA	-	Education For All
I.Q	-	Intelligent Quotient
FAPE	-	Free And Appropriate Public Education
K.C.P.E	-	Kenya Certificate of Primary Education
K.C.S.E	-	Kenya Certificate of Secondary Education
K.I.C.D	-	Kenya Institute of Curriculum Development
KISE	-	Kenya Institute of Special Education
K.N.E.C	-	Kenya National Examinations Council
K.S.L	-	Kenya Sign Language
L₁	-	Language that a child learns first before any other Language
L₂	-	Any other Language a child acquires after acquiring first Language
L.S.Q	-	Langue de Signes Quebeoise
M.C.E	-	Manually Coded English
M.D.Gs	-	Millennium Development Goals
M.T	-	Mother Tongue

M.S.H.L	-	Minimal Sensory Hearing Loss
P.S.E	-	Pidgin Signed English
QASO	-	Quality Assurance and Standards Officers
S.N.E	-	Special Needs Education
S.P.S.S	-	Statistical Package for Social sciences
U.D.H.R	-	Universal Declaration of Human Rights
U.N	-	United Nations
UNICEF	-	United Nations International Children's Fund
UNESCO	-	United Nations Economic, Social and Cultural Organization
UNISE	-	Uganda National Institute of special education
U.S.A	-	United States of America
WHO	-	World health Organization

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CHAPTER ONE

INTRODUCTION

1.1. Background to the study

All children should not only be in school but should acquire the expected learning outcomes, especially , reading and writing skills at every stage of the curriculum irrespective of whatever circumstances (UNESCO 2010, 2014, 2015). The Country progress report to the United Nations Educational, Scientific and Cultural Organization (UNESCO) however revealed that of the World's 650 million Primary School children, 130 million, (20%) graduate from school without basic foundation skills in reading and writing (Learning Matrix Task force, 2013, UNESCO 2010, 2014, 2015). These findings were supported by Davidson and Hobbs (2013), Global partnership for education (2012), Luckner and Handley (2008), Miggard and Mingat, (2012), which also highlighted that over 20% of learners from developing counties stay in school up to four years without mastering the necessary written Language skills.

All over the world, the goal of education in any democratic society is to provide learners with quality education that will translate them into literate and productive members of the society. With globalization, English has become a major means of communication the world over. It is the language of science, globalization, Commerce, trade, politics, history, education, entertainment, media and technology, Kagan 1984, as cited in Njuguna 2012. Broughton (1993), Ibid, observed that English is the language of the mass media, and the language of official institutions of Law Courts, local and central government and of Education. Therefore, all children should not only be in school but should acquire the expected learning outcomes, especially , reading and writing skills at every stage of the curriculum irrespective of whatever circumstances (UNESCO 2010, 2014, 2015). The Country progress report to the United Nations

Educational, Scientific and Cultural Organization (UNESCO) however revealed that of the World's 650 million Primary School children, 130 million, (20%) graduate from school without basic foundation skills in reading and writing (Learning Matrix Task force, 2013, UNESCO 2010, 2014, 2015. These findings were supported by Davidson and Hobbs (2013), Global partnership for education (2012), Luckner and Handley (2008), Miggard and Mingat, (2012), which also highlighted that over 20% of learners from developing countries stay in school up to four years without mastering the necessary written Language skills.

In Australia, English is considered so valuable that learning English is one of the critical steps migrants have to take towards successful settling in Australia in the belief that learning English equips new arrivals with the language skills needed for employment and aids in building social connections necessary for successful integration into the broader Australian community, Watson,1981, in Njuguna (2012).

Glewwe and Kremer (2005) in their study on schools, teachers and educational outcomes in developing countries described the impact of additional resources inputs on educational achievements as mixed. Accordingly retrospective studies have shown limited impact while experiments and randomized trials recently conducted in middle income Countries indicated more mixed results. Furthermore, Good governance practices and reforms, giving more autonomy to schools have been observed to have more influence on learner achievement than giving incentives to teachers for improving student achievement.

In Scotland, effective schools emphasized on high intellectual expectations of teacher, a professional attitude towards school and staff development, the utilization of rewards in place of punishments and emphasis on involvement of teachers in development were the main factors observed as influencing academic achievement of students in Secondary schools.

In Sweden, all schools follow Swedish Education Act and Curriculum, which requires that Municipalities are responsible for allocating resources and organizing schooling. The Act requires that they comply with National Laws and regulations. The Act stipulates that all students are given the opportunity to develop according to their abilities (SFS, 2010). Schools strive to compensate students for differences in the opportunities they are provided through education implying that students with special needs are entitled to receive support from the school and teachers are required to adapt their teaching to help all learners. To sum up, the official policy stipulates that Municipalities, Principals and Teachers carry Special responsibilities for students with hearing loss at Various Levels. This means that the learning needs of all categories of learners are taken into account when providing education and learners are placed according to their abilities. Accordingly they utilize technology to place learners with hearing impairment in inclusive schools. No research has been done on the type of regular educational intervention on Pre-Lingual Secondary school Deaf learners regarding accessibility to the general curriculum, especially their performance in English composition creating the impression that these learners are only given vocational skills. Holmstrong, 2013 et al in her study of interaction in two mainstream classrooms both of which have one child with CIs observed that, while mainstream schools are equipped with hearing technologies, DHH Students using these technologies are not fully involved in classroom interaction and Visual communication is situationally Subordinated to oral communication. She further argued that students with CIs generally have a more peripheral identity positions when compared to their hearing classmates and that they are sometimes marginalised, (Qi. and Mitchel 2012).

Over the last 40 years, results from numerous studies have indicated that Deaf children have significantly poorer reading comprehension, literacy skills and overall depressed academic

achievement in general when compared to their hearing peers., decreasing likelihood of enrolment in post-secondary education institutions, (Qi & Mitchel, 2012) (Garberoglio, Cawthon, & Bond 2014, report that approximately half of Deaf students in the United States were reading below the fourth grade level at the time of their high school graduation. Bett, Zau and Rice, 2003 in Njuguna 2012 in their study of the most economically disadvantaged students in Sandiego, USA concluded that family background and the stability of a community were the main factors affecting performance.

While some researchers argue that all Deaf children should be conceptualized as bi/multilinguals, many of the comparisons made between Deaf children and English learners are based on only subsets of the Deaf population. Moshi, 2015 argued that Deaf children are a heterogeneous group, who display different learning characteristics. These are Pre-Linguals . Post Linguals and Hard of hearing.

Schools are required to accommodate hearing loss under both the American with Disabilities Act Amendments (2008) and the IDEA (2004). Despite requirements for individualised educational services that meet their unique learning needs, DHH Students achievements has remained substantially below that of their normal hearing peers. Several studies have revealed that the presence of hearing loss, irrespective of the loss not only creates barriers to language acquisition but also compromises much of these children's access to academic content. California, USA, Centre for effective schools consider at least some seven attributes which influence academic excellence, a clear and focused mission, high expectation for success, instructional leadership, frequent monitoring of student progress, opportunity to learn and student time on task, a safe and orderly environment and conducive home school relationship. Garberoglio, Cawthon & Bond 2014 report that approximately half of Deaf students in the United States were reading below the

fourth grade level at the time of their high school graduation, with only 7-10% of Deaf High school graduates reading at the seventh grade or above. A notable gap in these studies is that non of the authors have attempted to explore intervention measures that can be taken to assist the different categories of pre-lingual Deaf students access regular curriculum with ease and achieve desirable learning outcomes like any other learner, which is the main focus of this study.

Laisadoulet and De Janvry, (2008) found in China that schools characteristics mattered for test scores at the high school entrance examination and that teachers' quality significantly influence academic performance.

According to Njuguna (2012), the research findings from developed Countries may not apply to developing countries as they are very heterogeneous in nature and are dissimilar to industrialized Countries. He asserts that each developing Country has its own unique socio economic status, school practice, teachers, students, cultures, geographical scenario and political system and calls for in depth research at Country level in context and with good data to address the methodological and estimation problems . (Rice,2003). Ibid

In Pakistan, a study conducted by Farook, Chaundry, Shafiq and Barhanu (2010), at the University of Punjab on factors influencing academic performance of Secondary School students among 10th graders in a metropolitan city of Pakistan revealed that previous achievements, at the preceding level,, economic status and parents education have significant effect on students overall academic achievements as well as achievements in Mathematics and English. Of these factors they noted that socioeconomic status is the leading factor that influence academic performance of students. They went further to elaborate that high and average socioeconomic levels affects performance more than the lower level and added that the socioeconomic status of learner affect the quality of their performance. Accordingly the low socioeconomic status has

negative effect resulting in negative effect on the academic performance of the student because most of the basic needs of the students remain unfulfilled causing them not to perform better academically, Adams,1996, Ibid. Furthermore they observed that the low socioeconomic status caused environmental deficiencies resulting in low self-esteem of students. They also highlighted that parents' education meant more than their occupation in relation to their children's academic performance at school. Other factors such as gender of the student were also observed as affecting their performance, especially in subjects like English whereby girls outperformed boys

In Nigeria, Adenuga (2002) Ibid, observed decline in education quality (learner achievement), a factor he attributed to be the result of low achievement and declining level of key inputs such as infrastructural materials...libraries and teaching facilities and man power. Studies on teachers' effectiveness at the classroom level revealed that variation on teacher effectiveness is a strong determinant of differences

The language of instruction in post Primary Education in both Tanzania Mainland and Zanzibar Island is English, which is taught with consideration of the objectives stipulated in the syllabus

In Tanzania, students were motivated.

According to Mayaka, (n.d), hearing provides a basis for almost all kinds of learning an individual is subjected to. From the time a child is born, he or she at least after some weeks expected to respond to sound stimuli. He went further to elaborate that this becomes possible if one's auditory system are perfectly developed. Moreover he pointed out that the ability to learn effectively is supported to the fullest by the integration of all the five senses as a human being has, of which hearing has no exception. He proceeded to elaborate that, the attitude that society has makes children grow up with minimal exposure that further makes them exhibit peculiar developmental patterns like inattention, failure to complete given tasks and other memory related

issues and concluded that members of the community subject majority of children with hearing loss to underperformance in terms of academic achievements.

Ademokaya (2007) cited in Ogada, 2012 in his study of classroom communication and placement of the Deaf child in Nigeria identified three levels of onset of hearing loss; Congenital, Pre-lingual and post –lingual hearing loss. He argued that when one sustains hearing loss early in life, it has a bearing on their learning outcomes. According to him pre-lingual hearing impaired persons have impoverished language skills and have little opportunity to communicate in educational and social settings. He also noted that

the choice of appropriate language of instruction has been a great threat in the education of the hearing impaired learners. He proceeded to argue that the greatest disadvantage, which hearing loss places on individuals is deprivation of communication opportunities. Ekwama (Ibid) , also opined that classroom communication is the most important issue to consider when discussing successful teaching and learning experiences with the Deaf considering that it is the central aspect where his/her disability poses the greatest challenge for him/her and his/her teacher. .. “Speech is the most conventional and most used form of communication in any human settlement unfortunately according to Ademokaya 1996,cited in Ademokaya, 2008 this is the greatest potential which hearing loss deprives the Deaf school child and yet it is the greatest asset anyone could wish him or her. Van Riper 1982 cited in Ademokaya (2008).

In Madagascar, several studies revealed that major influence on learner academic achievement include, leadership skills of the institution principal and degree of community participation. Teaching and learning resources, teaching skills, facilities and equipment were also observed as useful although secondary to the first two. (Ramandnamafamatanantsosa, 1995. Ibid. It was

further observed that the presence of materials and human resources demand principal's management skills in order to maximise outcomes.

In Kenya the overall goal of the ministry of education is to provide equal access to education to all learners irrespective of their physical or mental state in pursuit of the Government commitment to achieving Education for All (EFA) by the year 2015. Ministry of Education (2009). Mwanyumba 2016 in his study of the factors that influence academic achievement and units lack adequate resources to design classroom experiences that can help Deaf learners understand the content being taught, furthermore she noted that the teaching and learning materials designed to be utilised in Special for the Deaf, are unavailable and inadequate and the few available ones are not adapted to suit the learning needs of the Deaf learners. Despite these findings Mwanyumba,2016, noted that significant gains have been realized in provision of education to children with special needs over the last decade. Among the major mail stones in special Needs Education are the Disability Act 2003, The report of the Task force on special needs Education appraisal exercise of 2003, increased funding to SNE, and increased support to teacher Training for SNE at KISE. (Mwanyumba, 2016). Despite these tremendous efforts to improve standard of education to Deaf learners, Mwanyumba,2016 noted that Deaf people are often ridiculed and neglected in society with parents and community members openly favouring their normal learners over the Deaf learners, a condition that has greatly influenced academic achievement of the Deaf by lowering their self esteem in society and hence at school. Despite these tremendous efforts to improve academic performance of Deaf students at secondary school level in Kenya, the performance of Students in Schools for the Deaf in English in K.C.S.E has persistently been below average as shown in table 1. In the years 2010, 2011, 2012, 2013, 2014 and 2015 students registered mean scores of 3.45, 3.0, 2.4, and 3.17 respectively, out of a

possible mean of 12, all of which indicated a “D” Grade. (K.N.E.C. results, 2010-15). This was below average in Kenyan grading system, and also below the minimum pass-mark for entry into higher institutions of learning like teachers’ training colleges, under affirmative Action for Visually challenged and hearing impaired, which is grade C-.The reason for this low performance has not been established. English composition accounts for 33% of the total marks in English in K.C.S.E Examination; this is a significant percentage that is likely to have a negative effect on the overall performance since written English is a service skill that enhances performance in all subjects.

Table 1: Mean Grade in English Summary for Kenya Secondary Schools for the Deaf 2010 to 2015.

SCHOOL	YEAR											
	2010	MG	2011	MG	2012	MG	2013	MG	2014	MG	2015	MG
A	1.00	E	1.7	D-	1.9	D-	2.00	D	3.45	D	2.44	D
B	3.0		-		2.5	D	2.6	D	2.56	D	2.76	D
C	-		-		2.4	D	1.7	D-	2.11	D	2.11	D
D	2.8	D	3.67	D-	3.7	D-	3.16	D	2.64	D	3.13	D
GMG	2.26	D	2.65	D+	2.62	D+	2.37	D	2.75	D	2.72	D

Source , KNEC 2010-15.

Table 1 shows the mean grade attained by the four schools A, B, C, and D in Kenya over the period 2010 to 2015. The mean grades were as follows. The highest grand mean score during the period was 2.75 which is grade D in the Kenyan grading system out of the possible mean grade of 12, grade A. School C started doing K.C.S.E in the year 2012 while school B had its results cancelled in the year 2011.

Otieno (2010) argued that learners with hearing impairment's lack of proficiency in English was affecting their performance in examination in general and especially those subjects which were taught and examined in English, as written English is a service skill used in learning and examining most of the subjects. Ogada (2012) observed that hearing impairment leads to poor language development, yet language development according to her is one of the critical factors in a child's literacy learning. In her study of challenges of composition writing among class seven hearing impaired learners in the former Nyanza province, she observed that age at onset of hearing loss determined which language the child acquired as a first language (Ibid). She went further to mention that children with hearing impairment acquire language in different ways depending on the home environment however, her study of challenges of writing English composition among class seven learners with hearing impairment revealed that 90% of children with hearing impairment had hearing parents and as such were language deprived, whether the language was spoken or signed until they start school leading to delay in Language development. Her findings are almost in agreement with the American situation, where it was observed that 70-95% of Deaf children are born to hearing parents. However, in America like in many other parts of the World, consensus regarding optimal early intervention with the goal of developing adequate spoken language skills in Deaf children has still not been reached thereby warranting detailed meta-analysis examining the effects of Sign Language in Spoken Language acquisition (Fitzpatrick, Stevens, Garrity & Moher, 2013.)

One gap or disconnect in the field is notion that the learning needs of the two main categories of Deaf learners are very different and yet in Special Schools for the Deaf in Kenya and in most parts of the world, all the DHH are placed in the same classrooms, Taught under the same conditions, assessed using the same assessment tools and ranking criteria. Related to this there is

minimal research on the extent to which age at onset of hearing loss of the Deaf learner, Degree of hearing loss and teaching and learning strategies, influence their performance in English composition in K.C.S.E. This is a serious gap because most of the learning environments and assessment tools are not suited in identification of the diverse learning needs of all categories of Deaf learners. This study is therefore necessary to investigate the extent to which the selected factors age at onset of hearing loss, Availability and use of teaching and learning resources, Degree of hearing loss and teaching and learning strategies influence performance of Deaf students at K.C.S.E using inferential statistics while at the same time exploring possible intervention measures that can be applied to ensure that education system benefit all categories of Deaf students.

1.2. Statement of the Problem

While education is expected to deliver for every child, Motoya,2016, observed that access to education is only one part of the picture, she noted with concern that there is learning crisis, with one in six children and adolescents not reaching minimum proficiency levels in reading, writing or mathematics- and recommends effective monitoring to ensure that all children are in school and that they are learning what they need to know. The situation in almost all special Secondary schools for the Deaf is no exemption to this. Why? what is wrong on the ground? Literature review has pointed out that the presence of hearing loss, irrespective of the level of loss not only creates barriers to Language acquisition but also compromises much of these children's academic content. This substandard performance of DHH has been documented for several decades, with majority of the findings revealing persistent under performance in English in K.C.S.E as shown in table 1. In the years 2010, 2011, 2012, 2013, 2014 and 2015, students registered mean scores of 3.45, 3.0, 2.4, 3.7 and 3.17 respectively, out of a possible mean of 12,

all of which indicated a “D” Grade. This was below average in Kenyan grading system. Although theories have suggested that the selected factors may have caused this low achievement, no empirical studies had been carried out to ascertain the extent to which the factors had contributed to the low performance. English composition accounts for 33% of the total marks in English in K.C.S.E Examination, this is a significant percentage that is likely to have a negative effect on the overall performance since written English is a service skill that enhanced performance in all subjects. This study was therefore necessary to investigate the extent to which the selected factors had influenced the performance.

1.3. Purpose of the study

The purpose of this study was to investigate the extent to which the selected factors influenced Deaf students’ performance in English composition in K.C.S.E.

1.4. Objectives of the Study

The specific objectives were to.

- i. Determine the extent to which age at onset of Deafness had influenced Deaf students’ performance in English Composition in K.C.S.E
- ii. Find out the extent to which availability and use of teaching and learning resources had influenced Deaf students’ performance in English Composition in K.C.S.E
- iii. Establish the extent to which degree of hearing loss had influenced Deaf students’ performance in English Composition in K.C.S.E
- iv. Determine the extent to which teaching and learning strategies had influenced Deaf students’ performance in English Composition in K.C.S.E

1.5. Research Questions

This study was guided by the following research questions.

- i. To what extent does age at onset of deafness influence Deaf students' performance in English Composition in K.C.S.E?
- ii. To what extent does teaching and learning resources influence Deaf students' performance in English Composition in K.C.S.E?
- iii. To what extent does degree of hearing loss influence Deaf students' performance in English Composition in K.C.S.E?
- iv. To what extent does teaching and learning strategies influence Deaf student's performance in English Composition in K.C.S.E?

1.6. Hypothesis

Mugenda and Mugenda (2012) defined hypothesis as a proposition or explanation about phenomena, events or occurrences that a researcher attempts to support or refute. Using observed data. Accordingly two hypotheses are stated during the testing; the null hypothesis and the alternative hypothesis., which according to the duo are mutually exclusive, exhaustive and represent two contradictory statements that cannot be true at the same time.

Null Hypothesis is defined as the proposition that states no difference or relationship between variables. Any observed relationship or difference between the independent and dependent variables are not real but assumed to be due to chance. Null hypothesis is designated by H_0 .

Alternative hypothesis is the proposition that there is some association, differences or casualty among variables that is implied by a set of observations. Alternative hypothesis is designated by H_1 .

In this study, the following were the null and Alternative hypotheses;

H₀: There is no relationship between Age at onset of Hearing loss and performance of Deaf Students in English Composition in K.C.S.E

H₁: There is relationship between Age at onset of hearing loss and performance of Form four Deaf Learners in English composition in K.C.S.E

H₀ : There is no relationship between availability of teaching and learning resources and performance of Deaf students in English composition in K.C.S.E

H₁ There is relationship between availability and use of teaching and learning resources and performance of Form four Deaf Students in English Composition in K.C.S.E

H₀ : There is no relationship between Degree of Hearing loss and performance of form Four Deaf students in English composition in K.C.S.E

H₁ There is relationship between degree of hearing loss and performance of form four Deaf students in K.C.S.E. There is no relationship between teaching and learning strategies and performance of Form four Deaf Students in English composition in K.C.S.E

H₁: There is relationship between Teaching and Learning strategies and performance of Deaf students in K.C.S.E

1.7. Scope of the study

The study was carried out in five secondary schools for the Deaf that had registered their students for K.C.S.E and County mock examinations which formed the basis of this study. The respondents were principals, English teachers and Deaf students. The content studies include, the extent to which age at onset of Deafness, availability and use of teaching and learning resources,

degree of hearing loss, and teaching and learning strategies influenced performance of form four Deaf Learners in K.C.S.E

1.8. Limitations of the study

Mugenda and Mugenda (2012) define limitations of the study as characteristics of the design or methodology that constrain the extent to which the results can be generalized to the entire population being studied. In this study the following were the limitations.

- i. Some of the respondents, 14 (11%) did not fill the questionnaires as required. This limitation was overcome by use of Interviews and lesson observations as supplements.
- ii. Some of the respondents, 20 (18%) did not return the questionnaires. In all the return rate of the questionnaires was 93 (82%).
- iii. Some of the trained English teachers 2 (50%), who had undergone special needs Education program and taught form four were not available in all the sampled schools on the material day. This limitation was overcome by relying on responses from the available teachers. One of the teachers was on maternity leave the others were admitted in hospital with terminal illness one; later passed away.

1.9. Assumptions of the study

The assumptions of the study were;

- i. Both Special schools for the Deaf and regular schools did the same English examination paper in K.C.S.E during those years
- ii. The students were taught by qualified teachers.

1.10. Significance of the study

The significance of the study were:

Provision of information to K.I.C.D on necessary learning resource materials that can improve performance of the hearing impaired learners in English Composition. Guidance resource to education Ministry of Education in decision making for training teachers of English for learners with hearing impairment. Provision of references to QASO for strengthening the status of English Composition both for academic and for communicative excellence among learners with hearing impairment. Finally,

Language teachers would utilize the findings to improve on their instructional strategies to help the children acquire Composition writing skills.

1.11. Conceptual Framework

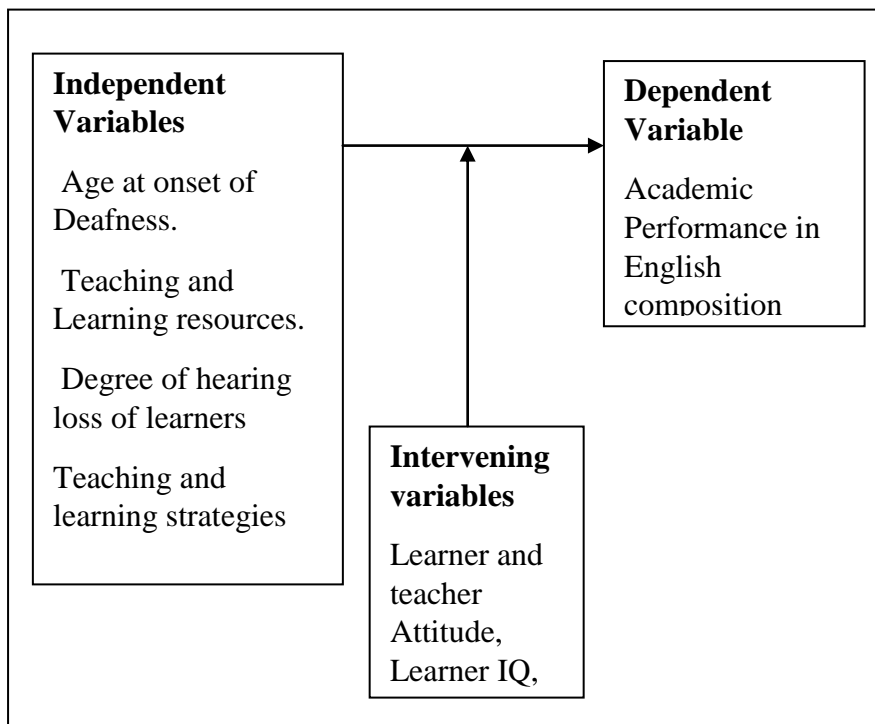


Figure 1: Conceptual Framework showing selected factors influencing Deaf Students performance in English composition in K.C.S.E.

This study investigated the extent to which Selected Factors influenced performance of form four Deaf Students in English Composition in Secondary schools in Kenya. The Independent variables were the selected factors influencing Deaf students' performance in English composition. The factors were Age at onset of Deafness, Teaching and learning resources, Degree of hearing loss and Teaching and Learning Strategies used to teach English composition in Secondary Schools for the Deaf. The four factors were selected among others on the basis of evidence from literature review and because the researcher saw them as the most influential factors in Deaf students' academic life. Age at onset of Deafness was considered by the researcher as the great dividing line among the different categories of hearing impaired learners. The pre-lingual hearing impaired learners are deficient in spoken language yet they are the majority in special schools for the Deaf. Delay in acquisition of first language leads to difficulties in learning second language hence poor performance in English composition in K.C.S.E.

Several studies have pointed out that in teaching children with hearing impairment, language development plays a prominent role. According to Noam Chomsky's theory of language acquisition, human brains have a language acquisition device (LAD), an innate mechanism or process that allows children to develop language skills. He identified five factors as crucial in influencing language acquisition in children. The factors were; Gender of the child, intelligent quotient, (IQ), Family size, Socio economic status and Bilingualism with the child's surroundings as moderating factor. The theory postulated that, all children are born with a universal grammar, which makes them receptive to the common features of all languages, because of this hard-wired background in grammar. (Woll 1985). Language ability in any modality plays a major role in the development of spoken language (Yoshinaga-Itano, in press).

The researcher also considered teaching and learning resources as crucial in delivering content to the learner. Poor understanding of classroom language coupled with inadequacy of learning resources leads to overall poor performance in English composition. Degree of hearing loss determined which language the learner acquired first. Poor mastery of language makes writing in the second Language very difficult hence poor performance in K.C.S.E. The teaching and learning strategies were also seen as crucial as this determined if the strategies applied in delivering content were learner friendly and varied according to the needs of different categories of Deaf learners. Since both the teacher and the learner have no common language for delivering content, the learner is deprived of crucial information leading to poor performance. The intervening variables were attitude of both the teacher and the learner, this negative attitude and Learner IQ make the subject uninteresting to the learners and the teachers. Successful interaction between the teacher, the learner and the text required proficiency in both KSL and signed or signed Exact English. Effective use of these languages was influenced by the teachers perception, and the learners attitude towards the language and this had a greater implication on the latter's achievement in English composition. Where the learner lacked the essential skills, knowledge and strategies, composition writing turned out to be a daunting task influencing her engagement with the subject, general attitude towards writing and overall achievement in English composition. Poor Economic status of parents also make it difficult for them to purchase additional resources to the learners to supplement what the schools provide hence vicious cycle of poor performance in the subject. The dependent variable was the performance in English Composition among form four Deaf students. Other factors such as family background, social economic status, political stability, learning environment also influence academic performance but the researcher did not see them as crucial in academic life of the Deaf learner as the four.

1.11. Operational Definition of terms

Auditory perception: Ability to detect sound through hearing

Barriers to learning and development: Anything that prevents proper learning and development.

Bilateral hearing loss: Loss of hearing on both ears

Communication: All the ways that we convey and exchange our ideas, feelings, reactions, questions, objections with other people

Convention: An agreement between member states to follow/Obey certain laid down rules/policies

Critical Language Acquisition Period- Period between 0-6 years when a child acquires language naturally in a language rich environment.

Deaf: refers to an individual with a bilateral hearing loss who does not use oral language and speech

Degree of hearing loss: Refers to the severity of the loss ranging from Normal hearing to profound hearing loss

Dependent Variable: Refers to a variable whose outcome is under investigation

Education of the hearing impaired: Is education that caters for persons with various degrees of hearing loss and includes children who are unable to hear within normal limits due to physical impairment or dysfunctioning of the auditory mechanism distinguished by Deafness.

English Composition: Expression of ones ideas in written English mainly in continuous pros.

Hard of Hearing: Individuals who lost hearing after acquiring spoken Language and can Lip read

Holistic approach: is an approach where the interplay between different factors in child development and child surrounding are taken into consideration for learning and development

Impairment: Inability to perform tasks normally due to loss of some functional organs e.g. Inability to hear due to loss/damage of hearing organs.

Interaction: Mutual attention towards each other

Intervening Variable-A variable that moderates the expected outcome of the dependent variable

Intervention-A planned attempt to promote the welfare of the handicapped

Post-Lingual Hearing loss - Loss of hearing after acquisition of basics of oral language

Pre-lingual Deaf –A person who suffered hearing loss prior to three years of age, which prevents the processing of linguistic information through hearing, with or without amplification, if the condition is verified through medical or other appropriate professional means.

Special Needs - Are conditions or factors that hinder an individual's learning and development.

Special Needs Education-Education Tailored to meet the needs of persons with special Needs and disabilities using an adapted curriculum, a modified environment and special resources and methods.

Sub-vocalization - Both meaningful and meaningless sounds that babies make before learning how to talk.

Written English - Expression of ones ideas or thoughts in written form of English, mainly in continuous pros.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

This literature review investigated the extent to which selected factors influenced form four Deaf students performance in English composition in K.C.S.E. The factors were, Age at onset of Deafness, Teaching and learning resources, Degree of hearing loss and strategies used in teaching and learning English composition in Secondary schools for the Deaf in Kenya. The chapter highlights the different resource materials that were reviewed to achieve the objectives of this study.

2.2 Age at onset of hearing loss

Age of onset of hearing loss implies the age at which the hearing loss of the learner was first diagnosed. The presence of hearing loss, irrespective of the level of loss not only creates barriers to Language acquisition but also compromises much of these children's academic content. The substandard performance of Deaf and Hard of Hearing (DHH) has been documented for several decades. According to Qi & Mitchel, 2012, the mean reading comprehension and written English scores for 18 years old on the Stanford Achievement tests have never exceeded the fourth grade since the 1970s. In the United States of America (USA). Schools are required to accommodate hearing loss under both the Americans with Disabilities Act Amendments (2008) and the IDEA (2004). Although in the US there is requirements for individualized educational services that meet unique educational learning needs of DHH, the achievements of these cohort of students has remained substantially below that of their normal hearing peers. (Karchmier& Mitchell, 2012). They also noted that hearing impaired children do not develop age appropriate reading and writing skills consequently a hearing impaired child who has not developed reading skills cannot

improve his or her writing skills. Deaf children of Deaf parents are presumably exposed to natural Sign Language such as ASL from birth and acquire it with ease and in the same developmental schedule just like hearing babies acquire spoken Language, The duo further argued that linguistic experience independent of sensory motor modality supports the development of the ability to learn language (s) subsequently in life including the development of linguistic devices. On the contrary the lack of early language was observed to be strongly associated with long lasting deleterious effects on the ability to learn any language regardless of the length of linguistic exposure (Davidson, Lillo-Martin & Pichlet, 2013).

Congenitally Deaf children, especially those born to hearing parents lack exposure to appropriate language during critical Language acquisition period (Appendix VIII) as they are only exposed to oral language yet they lack auditory skills. This makes them not acquire first language at appropriate time until they go to school.

Ademokaya (2007) in his study identified three levels of onset of hearing loss; Congenital, Pre-lingual and post –lingual hearing loss. He argued that when one sustains hearing loss early in life, it has a bearing on their learning outcomes. According to him pre-lingual hearing impaired persons have impoverished language skills and have little opportunity to communicate in educational and social settings.

2.2.1 Influence of hearing loss on speech perception, production, and language of children with early onset hearing loss.

Language is one of the most useful tools we have as humans, without it we could not think thoughts expressible to others nor could we engage in activities that take place in society we ourselves have built., (Di Pietro, 1994) as cited in (Moshi, 2015). He further argued that language is very important in Education, for instance, Roy Campbell and Qorro (1997), Ibid,

asserted that education is carried out largely through the medium of language, thus language is very significant in the education process. Additionally, ADEA, (2005) argues that, “Language is not everything in education, but without language, everything is nothing”. Cited in (Moshi.2015). Language plays a crucial role in learning and if the learner is handicapped, in the language of instruction, then learning may not take place at all as the instructor or teacher and the learner will not be communicating, Malekana2003 in Moshi 2015.

Sandra (2005) observed that children with hearing impairment acquire language in different ways depending on home environment. Language development according to her is contingent on frequent, consistent and accessible communication. She further pointed out that children with hearing impairment need linguistically rich environments in order to acquire sign languages. Most children with hearing impairment have got hearing parents and are therefore language deprived until they start school leading to delay in language development.

Creative and functional expressive English writing are two ways in which one may learn to express himself. Learners with hearing impairment may face challenges making good written composition due to their limited social interaction with environment. Yoshinaga-Itano et al. (1998), Kennedy et al. (2006) Moeller (2000) found out that Decreased auditory sensitivity manifested early in life can adversely affect development of language, oral communication, cognitive and educational progress. Mba (1995) pointed out that the age at which one sustained a hearing loss bears some relevance to his or her learning outcomes in school. He argued further that a person who sustained hearing loss later in life must have acquired some communicative skills for which he or she can function relatively better than the pre-lingually deaf person in academic and interactive engagements. Ademokaya (2006) highlighted that Deaf students who acquire speech or usable verbal language skills before sustaining hearing loss utilize such

advantages in their communicative and academic efforts. Hallhan & Kauffman (1994) shares this view and concludes that such students have better learning inputs and outputs, needs than those of a pre-lingually deafened child whose loss occurred between birth and two years of age.

Adoyo (2004) reports that one of the reasons for failure by learners with hearing impairment to measure up with their hearing peers is embedded in the lack of an appropriate language for classroom communication. Some scholars have argued that teachers are not using communication modes which make the curriculum content accessible to learners with hearing impairment. Although Simultaneous Communication (SC) is used, learners with hearing impairment can hardly comprehend and recall facts in it. Therefore, Adoyo (2004) suggests Kenya Sign Language (KSL) as the preferred language of instruction for learners with hearing impairment. According to Maina (2009) the age at which a student experiences hearing loss is the critical biological variable affecting language development. She further pointed out that a post-lingually deafened child who has sustained a hearing loss at three years of age or older typically evidences different language, communication and educational needs than those of a pre-lingually deafened child whose loss occurred between birth and two years of age. The researchers above paid attention on search for appropriate language. None of them tried to explore the extent to which age at onset of Deafness influenced performance of Deaf students in K.C.S.E. which this study investigated.

2.3 Availability and Use of Teaching and learning resources

According to Maina (2009) teaching and learning resources are those materials used in the teaching and learning process.

Medwell et al. (2006) highlighted several teaching and learning resources that can be used in the English classroom, puppets, story sacks, displays, adult resource persons and information

technology. Mobility international (2010) suggests several resources that can be incorporated in teaching learners with hearing impairment including flash cards, video tapes, interpreters and speech to text provider. Rose (2012) recommends the use of Visual aids such as posters, charts, flash cards, pictures, manipulative, graphic organizers, artefacts or any other visual items to illustrate concepts. She also recommends the use of captioned Videos. According to her some students with hearing loss may require the use of sound amplification equipment and in this case students should sit near the equipment so that they can hear amplified voices. Where microphone is used it should be passed around during group discussions.

Another strategy used in America according to Rose, (2012) is Individualized Education Plan, which she advises teachers to use while carefully following all established guidelines regarding classroom adaptation. She further elaborated that steps can be taken to make sure that classroom is suitable for hearing impaired students. Equipment that create background noise such as fans, projectors and cooling and heating systems should be turned off if available in the classroom. Elimination of background noise helps students with hearing impairment focus on the class lecture and assignments. Hearing aids amplify all types of sound including tapping of pencils air conditioners etc. Rose (2012) recommends the use of Area rugs, heavy curtains and tennis balls on chair bottoms to eliminate extraneous noise. She went further to elaborate that careful selection of teaching and learning resources contributes to nurturing of concepts from ideas. She however failed to mention Visual noise that has serious effect on attention of hearing impaired learners.

Learners with special needs require more materials for their education than their non- disabled peers both at classroom and at individual level, Kochung' (MOE, 2003) cited in Maina 2009. According to secondary education syllabus (K.I.E, 2002) the main resource for teaching in most

schools in Kenya is text book. A study conducted by Ogada 2012 on challenges of composition writing among hearing impaired learners found that although text books are the main resources used in teaching English, the books were inadequate to the extent that one text book was used by fifteen to twenty learners and remarked that inability to access text books seriously hindered the learning process thereby contributing to poor performance. She recommended that more appropriate and relevant resource materials should be availed and that both teachers and learners need to be encouraged to take the initiative in collecting or making those resources which the school may not be able to provide. Besides those resources, they recommend that teachers should be creative in classroom arrangement to allow for role playing activities and also in planning for the utilization of time.

Ogada (2012) mentions that the main resource used for teaching and learning English Composition is text book. The Kenya Institute of Curriculum Development (KICD) education publishes and recommends a variety of relevant text books. The earlier researchers like Ogada 2012 studied resources used in teaching hearing impaired learners in general and at Primary level. None made efforts to study the extent to which availability and use of teaching and learning resources influenced performance of form four Deaf learners in English composition in K.C.S.E. using statistical inference, which this study set out to specifically investigate.

2.4 Influence of degree of deafness (Hearing loss) on Deaf students performance in English Composition in K.C.S.E

Degree of hearing loss refers to severity of the loss. Over the years professionals in our fields have sought single scale for evaluating hearing impairment from as early as 1929 (Clarke 1981). Fetcher (1929) identified various descriptive labels that were designed to designate the degree of a person's hearing impairment. Since this time there have been numerous attempts to categorise

the degree or severity of hearing loss by the numerical decibel values assigned to the audiogram and used frequency and intensity aspects to describe the degrees of hearing loss. (Feldman, 1970) cited in Vinary (2011). Clark (1981) proposed one of the most commonly used degree/ Intensity of hearing loss classification systems, Mild, Moderate and Severe. Goodman (1965) measured hearing sensitivity of each ear and came up with seven classification of degree of hearing loss as shown in the table below.

Table 2: Classification of degree of hearing loss

CLASSIFICATION	RANGE IN dB
Normal Hearing	-10-15
Slight Hearing Loss	16-25
Mild Hearing Loss	26-45
Moderate hearing loss	46-55
Moderately severe hearing loss	56-70
Severe hearing loss	71-90
Profound Hearing Loss	91 and above

Moore (1985) identified four conditions that appear most closely related to the academic success of hearing impaired students one of which is the severity of the hearing impairment and mentioned that the greater, the hearing loss, the more difficulties the learner experiences. Bess et al 1998, studied the relationship between minimal Sensory hearing loss (M.S.H.L) in School

aged children 3rd, 6th and 9th grades and observed that third grade children with M.S.H.L exhibited significantly lower scores than normal hearing children, concluding that children with M.S.H.L experience more academic challenges. Hearing loss has negative influence on academic achievement of learners, especially as it affects language acquisition and development. According to Moore, 1986), the greater the hearing loss, the more difficulties, the learner experiences. Those with profound hearing loss according to him are likely to encounter more as well as serious academic challenges than those with severe, moderate and mild hearing loss. Learners with hearing impairment may have partial or full hearing loss on one or both ears. (Hardman et al, 2005).

The characteristics exhibited by the students depend on the degree of hearing loss, which involves not only the loss or impairment of the hearing but the loss or limitation of the ability to acquire language. Hearing loss has negative influence on academic achievement of learners depending on degree of hearing loss, this is especially so as it has an influence on language acquisition and development.

According to Mayaka (nd), hearing provides a basis for almost all kinds of learning an individual is subjected to. From the time a child is born, he or she at least after some weeks expected to respond to sound stimuli. He went further to elaborate that this becomes possible if one's auditory systems are perfectly developed. Moreover he pointed out that the ability to learn effectively is supported to the fullest by the integration of all the five senses as a human being has, of which hearing has no exception. According to him, the attitude that society has makes children grow up with minimal exposure that further makes them exhibit peculiar developmental patterns like inattention, failure to complete given tasks and other memory related issues and

concluded that members of the community subject majority of children with hearing loss to underperformance in terms of academic achievements.

In Kenya, the Identification of learners with Disabilities is done at the Educational Assessment and Resource Centre (E.A.R.C).The Centres were started in 1984 with the support of Danish Government (DANIDA). Once hearing loss is suspected the assessor refer the learner to audiologist, who will carry out further tests regarding degree of hearing loss. The above researchers made every effort to classify the degree/ severity of hearing loss, the challenges the learners faces as a result of the same and the influence of the loss on academic achievement of lower school level children. No research has been done to study the extent to which the degree of hearing loss influenced Deaf students' performance in English composition in K.C.S.E. using statistical inference, which this study was set to investigate.

2.5 Influence of Teaching and Learning strategies on form four Deaf Students Performance in English Composition in Secondary Schools.

Slavin (2000) defined teaching strategies as organized techniques intended to achieve a discrete learner outcome. Effective strategies according to Archer (2004) demands for the implementation of many strategies and skills to accommodate the needs and learning styles for each individual student in the classroom. Gilbert (2011) calls for modification of strategies found to be effective with hearing learners to meet the learning needs of Deaf Students. According to Rose (2012) hearing loss has effect on language development and access to curriculum and recommended some strategies she hopes if applied well can help hearing impaired learners access curriculum. Among the recommended strategies are; communication methods as well as use of sign language and monitoring of students' progress throughout the year. Which are explained below.

2.5.1 Communication considerations

According to Rose (2012) teaching methods should be adjusted to accommodate visual learner's needs by writing all homework assignments, class instructions and procedural changes on the board. Providing visual cues eliminates confusion on these topics. She went further to suggest that, effective communication is vital with a hearing impaired student to ensure student success. Since many of hard of hearing students rely on lip reading, Rose recommends that it is important to look directly at the student and face him or her when communicating or teaching and adds that the instructor should endeavour to say the students name or signal their attention in some way before speaking. She also recommends that student should be assigned desk near the front of the classroom or where the instructor plans to deliver lecture. She highlights that the instructor ought to speak naturally and clearly remembering that speaking loudly may not help neither lip exaggeration can. However she advises that speaking slowly can go a step forward in helping some students. According to her, facial expressions, gestures and body languages should accompany spoken language although she discourages their overuse. Rose (2012) also cautions teachers to note that some communication may be difficult for the hard of hearing student to understand and advises that idioms, jokes and sarcasms should explicitly be taught. She says, young hearing impaired children often lag in the development of social graces and therefore the teacher should endeavour to teach social skills such as joining in to games, or conversation and staying on topic. Male teachers are advised to keep their moustaches well managed. She also noted that some strategies and techniques work for some students while some students are successful using other techniques and therefore advises that time should be spared for rapport building so that the teacher knows what works best for each category of learners.

Sessional Papers no. 14 of 2012 which consolidated and reinforced what the Government policy on language has been as a medium of instruction in schools, that the language of the Catchment area (mother tongue) shall be used for child care, Pre-primary education and in the education of lower primary children.

The report of the National Committee on Education objectives, commonly referred to as the Gachathi report recommended the use of mother tongue as a language of instruction, the predominant language spoken in the schools' catchment area for the first three years of primary education. (The Standard Feb 5th 2014). Under this scenario KSL which is considered as the mother tongue of the hearing impaired children in Kenya should be the medium of instruction for learners with hearing impairment during pre-school and first three years of Primary education. The Kamunge report, (Republic of Kenya, 1988), also supports this view that mother tongue within the catchment area should be used as the language of instruction in pre-school and adult education programs. Kenya Institute of Education (K.I.E, 2004) recommended the use of Kenya signed English, which is a combination of KSL and Signed English (SE), in teaching English to learners with hearing impairment. This was in tandem with Adoyo, (2004) who reported that since KSL is easier for learners with hearing impairment to understand and recall, it would be logical to use it as the language of instruction in the HI classroom. A good background in sign language among learners with hearing impairment enhances the acquisition of English language. These studies focused mainly on appropriate language of classroom communication. More over the studies were carried out among primary school children. Worse still the researchers did not categorise the various categories of hearing impaired learners and study their different learning needs, but referred to the entire group of HI learners. Questions still remains as to whether KSL

as a language of classroom instruction will help the learner with HI write competently and undertake fluent and complex work at higher levels. (Wamae, 2002)

This study is set to investigate the extent to which teaching and learning strategies influence Deaf students' performance in English composition in Secondary schools in general and K.C.S.E in particular using inferential statistics.

2.5.2 Regular Evaluation of Learner's progress.

According to Rose, 2012 it is important for teachers to monitor progress and understanding of all students, but especially so for those with Special needs. Teachers must be sensitive to the needs of Deaf learners and follow the IEP as closely as possible. If possible the teacher should monitor students' progress on daily work and assignments and ask students for feedback regarding their understanding or areas where they might be confused. She went further to suggest that maintenance of close contacts with parents and other teachers and sharing of ideas and techniques that have been successful are also crucial. If possible establish a system with the parents to monitor students work, participation and progress such as daily agenda. In Kenya student progress is evaluated through classroom assignments, Continuous assessment, terminal tests, promotion tests and Standardized Tests. Maina, 2009 studied curriculum factors in terms of resources, time on the task, medium of instruction and methods of teaching and observed that they have positive influence on performance of form four learners at K.C.S.E mathematics. This study is set to investigate the extent to which teaching and learning strategies influence Deaf students performance in English composition at Secondary School level in general and K.C.S.E in particular, using inferential statistics.

CHAPTER THREE

METHODOLOGY

3.1 Research Design

This study employed a descriptive survey design. A survey according to Kothari (2004) is a procedure or a combination of procedures such as questionnaire, interviews and observations. This design was used to gather information on the nature or condition of the current situation. Previous events and how they related to present conditions were also taken into consideration. (Cresswell, 2009; Best and Kahn, 2006). The design enabled the researcher to describe, analyse and interpret the extent to which the selected factors influenced performance of form four Deaf learners in English composition in K.C.S.E. The design was chosen because it was found to be simple and easy to administer and provided opportunity for triangulation (Cohen, Manion and Morison, 2000, Kombo and Tromp, 2012). Correlational designs were also used because they provided opportunity to study the degree (extent) of relationship between the Independent and dependent variables. (Cresswell, 2009). The use of the design also increased the generalisability to situations as it measured variables in their natural situations. (Steg, Buunk & Rothengatter, 2008). The combination of both the descriptive survey and correlational research designs in this study enabled the researcher to establish facts, seek opinions, determine relationships, describe analyse and interpret data on the teaching and learning of English composition and influence on academic performance of Deaf learners in secondary schools in Kenya.

3.2 Study Area

The study was carried out in five Secondary Schools for the Deaf that had registered their candidates for K.C.S.E and County Mock English examinations which formed the basis of this study regarding academic performance.

Geographically, Kenya is located along the Equator, on the Eastern part of the Continent of Africa at Latitude 0.4252° South and Longitude 36.7517° east. It covers an area of 582,650 Km². With a population of 38,610,097 people according to 2009 census. It borders Tanzania to the Southwest, Indian Ocean to the South East, Sudan and Ethiopia to the North, Uganda to the West and Somalia to the East. It shares Lake Victoria with Tanzania and Uganda. Kenya is currently divided into 47 Counties. The major towns found in Kenya include Nairobi, Mombasa, Kisumu, Nakuru and Eldoret. Of these towns Nairobi is the capital City. Kenya has three national languages, including English, Kiswahili and Kenyan Sign Language. Most of the inhabitants are Bilinguals speaking English and Swahili with a large percentage speaking mother tongue of their ethnic groups. Majority of Kenyans are Christians as per central intelligence Agency, 2009. Others belong to Islam, Hindu and Legio Maria.

Kenya is a multicultural society composed of several tribal communities. Major ones being the Kikuyus, the Kalenjins, the Luos, the Kambas, to name but a few. Most inhabitants of Kenya are Bilinguals, speaking English and Kiswahili others speak tribal mother tongues. According to 2009, population census, the population of people with disability in Kenya was 1,330,312 million accounting for 3.5% of the total population. Out of this 187,818 (14%) were persons with various category of hearing impairment (Kenya National Bureau of Statistics, 2010). National Survey on persons with disabilities (P.W.Ds), in Kenya revealed that 14,620 (3.6%) of youth between ages 15 to 24 have disabilities, of which 5848(0.4%) were hearing impaired (Deaf). (Government of Kenya, 2008(a)). Map of Kenya showing the counties where the target schools were located is in appendix x

3.3 Study population

The study population was drawn from the five targeted secondary schools for the Deaf and the respondents were constituted as follows: 5 Principals, 142 form four Deaf students and 9 English teachers.

3.3.1 Sample and Sampling Techniques

Saturated Sampling Technique was used to select 4 Principal and 8 English Teachers and 127 Form four Deaf students. Saturated sampling technique which is a non-probability sampling technique in which all members of the target population are selected because they are too few to be sampled out according to (Orodho, 2009) was used. In this study, saturated sampling technique was considered suitable for the selection of respondents since the population was too small to be sampled out. Principals were included in this study because they were the ones who had relevant information about the learner and the school. The information obtained from principals included Learner background and resources available in school. English teachers were included in this study because they were the ones who were in custody of learner's progress records and knew each learner individually. Form four Deaf learners were included in this study because they were the candidates for K.C.S.E whose performance formed the basis of this investigation, and also because the researcher believed that they had already covered much of the English Curriculum content, hence had adequate experience which put them in a better position to give informed opinions and their views on teaching and learning of English composition.

Table 3: Population and Sample Frame

Category of	Population (N)	Sample (n)	Percentage (%)
Respondents			
Principals	5	4	80
English Teachers	9	8	89
Learners	142	127	90

3.4 Instrumentation

This study used Questionnaires, Interview Schedules, Lesson Observation Schedules (LOS) and Document Analysis Guide (DAG) as instruments of data collection. There were three sets of questionnaires, one for English teachers, one for Principals and the other for students. Questionnaires for principals was used to generate general information about the school, the learner background, the resources available in the school and what was needed by the school. Questionnaire to teachers was used to collect data on learner progress, resources and strategies used in teaching and learning of English composition. This was because they were the ones in custody of learner progress records, the users of resources and the applicants of strategies used in teaching of English composition. Questionnaire to students was used to collect data on learner background such as age at onset of hearing loss, attitude towards learning English, Degree of hearing loss resource availability and strategies used in teaching and learning of English composition. This was done because the researcher believed that the learners themselves knew their backgrounds, resources they possess the strategies they actually use and their opinion

towards learning the subject. Document Analysis Guide was used to analyse student previous score records, mainly mock or terminal tests and assignments. Interview Schedule was used for interviews with English Teachers. Lesson Observation Schedule was used by the researcher to Observe what was going on in the classroom.

3.4.1 Principal's Questionnaire (PQ)

Principal's questionnaire was used to collect general information about the school and learners background. (Appendix I)

3.4.2 Lesson observation Schedule (LOS)

Lesson observation schedule was used to collect data on class room organization, and strategies used in teaching and learning English composition to learners with hearing impairment. These included:

- i. The strategies learners used to learn language, especially written English by deaf learners.
- ii. Resources used in teaching, learning language and building vocabulary among deaf learners

Whether the teachers gave attention to the severity of deafness. In all instruments, qualitative data was scored by means of a Likert scale which is considered suitable with matrix questions. (Appendix II). According to Gall and Borg, (2007) LOS enabled the researcher to observe the actual activities going on in the classroom rather than depending on what the respondents said they do. Therefore the utilization of observation in this study helped the researcher to confirm the responses provided by teachers and students questionnaires and interviews. The observation was done in three sections, A,B and C. In section A, the researcher observed the nature of classroom interaction, in section B the researcher focused on the teaching strategies while in section C the researcher paid attention on the Deaf students learning strategies.

The researcher employed modified or adapted Craig and Collins (1970) category system of communicative interaction in classrooms for the hearing impaired, which included eight communication modes that the researcher considered relevant for the topic of study instead of all the original ten. The researcher increased the time interval for recording the categories from three to five seconds giving due consideration to extra time utilized when signing. The analysis was consisted of eight communication modes between the teachers and Deaf students and ten categories of interaction. The categories for teacher interaction included: accommodation of feeling (1); commending (2), acceptance of idea (3); questioning (4) ;lecturing (5); giving instructions(6) validating(7); Learner interaction category composed of learner response (8) learner imagination(9); while learner confusion was denoted by (10). The communication modes were: Non manual Signal (N); written (W); finger spelling (F); evasion (E); manual (M); Gesture (G); speech (S).

In determining the nature of classroom interaction between the teacher and the learner the researcher considered twenty minutes. The researcher used a blank observation booklet to code the interaction categories and the communication modes used. The symbols of the system representing the category and mode of communication which occurred was recorded every five seconds for example when the teacher asked the class a question by means of speech the symbols 3S were recorded. Accordingly 3 stood for teacher asking question and S represented Speech. When the learner responded in the next five seconds interval using manual the symbols 9M were recorded whereby 9 represented learner response and the M represented manual mode of communication. One second silence was indicated by * mark whereas ***** indicated a continuous five second pause. Exclamatory remark (!) indicated that the speaker was interrupted.

Lesson observation schedule Loss and the adapted Craig and Collins (1970) category system of communicative interaction in classroom for the Deaf are attached as Appendix II and X

3.4.3 English Teachers' Questionnaire (ETQ)

English Teachers' questionnaire was used to collect data from form four English teachers. The information collected included: teachers' qualification, teaching strategies employed in teaching and learning English and the languages used in delivering content and methods used in vocabulary enrichment. Whether there were any resources used in teaching and learning English among learners with hearing impairment, Whether teachers took due consideration on age at onset and degree of hearing loss and whether the same were categorised according to their specific learning needs as they delivered instructions and whether learners got involved in extra curricula activities such as storytelling, debating etc. (Appendix III)

3.4.4 Learners' Questionnaire (L.Q)

The learners Questionnaire was used to collect data on:

Learners age at onset of Deafness, Learners degree of hearing loss, Learners' attitudes and ratings on English Composition in terms of teaching and learning strategies, The language used for instruction, Methods of Vocabulary acquisition and Resources used in teaching and learning English composition. (Appendix IV)

3.4.5 Document Analysis Guide (DAG)

According to Payne & Payne (2004), document analysis guide is a technique used to investigate, categorise, interpret and identify limitations of written documents. The strategy helps in revealing information which may not be available during observations. It helps in providing original or first-hand information produced by students. (Merriam, 2001). According to Best and

Kahn, 2006 learner achievement tests provide crucial information that aid in establishing the influence of teaching strategies.

In this study, document analysis guide was used to source information about Form Four Deaf students' previous achievements in English composition. The documents analysed were County mock results, terminal tests. The researcher used County mock examination results because she considered them as stronger predictors of the learners' performance in K.C.S.E. (Odhiambo, 2013 ;). Furthermore, the researcher considered County mock results as appropriate because they are more standardised and done when candidates have already covered much of the syllabus content and thus analysing them could give a clue of the final outcome of the teaching and learning strategies applied in handling English composition. Individual student marked essays were also accessible to help researcher obtain detailed information on spelling, grammar and Vocabulary which would have been impossible to obtain in final national examinations. (Appendix VI). In addition the learners were given assignment to write an essay which was duly marked by subject teacher and rankings done. (Appendix XI and XII) show typical creative composition written by pre-lingual and Post- Lingual form four Deaf students respectively.

3.5 Reliability

Reliability is the extent to which the research instruments are consistent in producing the same results every time they are administered (Orodho, 2009). Reliability of the instruments was ascertained through a pilot study on one of the schools. The participants for pilot study comprised 1 principal, one English teacher and 15 students using all the four instruments, Questionnaire, Document Analysis Guide, Lesson observation schedule and Interview guide and the same test was administered to the same respondents after two weeks to check on the appropriateness and consistency of the instruments. A correlation coefficient was then obtained

from data collected by means of learner questionnaire using Pearson product moment correlation coefficient. A correlation of 0.75 indicated reliability of the learner questionnaire and document Analysis guide (DAG)The other participants, principals' and English teachers' were presented to experts in Special needs education department to check on the appropriateness and consistency of the instruments. Any inconsistency arising from the other instruments were adjusted with the help of three experts from Special Needs Education Department. These were then adapted in the final instruments of the main study.

3.6 Validity

Validity is the degree to which the results obtained from data analysis represented the phenomenon under study (Mugenda and Mugenda, 2003).

To establish content and face validity, research instruments were presented to experts in the Department of special Needs Education, Maseno University, who scrutinized the instruments independently. Recommendations from the experts were used to make necessary changes before the instruments were used in the field.

3.7 Data collection Procedure

Research permit was obtained from the Maseno University Ethical Review Committee) (MUERC) School of Graduate Studies (S.G.S). The researcher made a courtesy call to the County director of Education, Migori, Kisii, Kaka mega and Siaya Counties to seek permission to collect data and District Education Officer (D.E.O), of the three Counties. Permission was sought from parent teachers Association (P.T.A) through the Principals to engage learners in research, and also make classroom observation, analyse documents and distribute Questionnaires. The questionnaires were collected after an agreed period of time and then organized and analysed. English composition test was administered to the form four learners

under the same condition. To answer research questions; To what extent did age at onset of deafness influence performance in English composition K.C.S.E.?, To what extent did Availability and use of teaching and learning resources influence Deaf students Performance in written English, To what extent did Degree of hearing loss of learner influence Deaf students performance in English composition, To what extent did Teaching and Learning Strategies influence Deaf students performance in English Composition? These were dully marked by the subject teacher and then graded according to age at onset and degree of hearing loss. The results were then compared to study whether age at onset and degree of hearing loss had any significant influence on performance in English Composition. A questionnaire was then used to collect data from Principals and teachers on other factors influencing performance in English composition.

3.8 Data analysis

According to Creswell, (2013) Data analysis is the process of systematically applying statistical and or logical techniques to describe and illustrate, condense and recap and evaluate data. In this study the data was first coded then entered into the system using SPSS before analysis. According to Mugenda and Mugenda, (2012) data coding is a systematic classification of variables into categories and assigning different numbers to various classifications to enable quantitative analysis to be conducted. In this study the variables were, Age at onset of hearing loss, Teaching and learning resources Degree of hearing loss, Performance in English composition, etc) Each of these variables was given a specific code for example Age at onset of hearing loss was coded as AHEARLOS4, and K.C.P.E English grade was coded as AENG3, etc) Quantitative data was analysed using Pearson product moment correlation techniques. According to Mugenda and Mugenda, (2012) Pearson product moment Correlation is a measure of the Association between two Variables that are measured at the ratio or interval scales, which was

first developed by Karl Pearson but now widely used in the natural and social sciences as a measure of the strength of linear relationship between two continuous variables, intuitively defined as the covariance of two variables divided by the product of their respective standard deviation,

$r_{xy} = \text{Cov}(XY) / S_x S_y$. Accordingly a coefficient that is close to + or -1 indicates a strong relationship while coefficients close to zero imply little or no association. He went further to elaborate that a negative correlation coefficient implicates that the variables are inversely related. Furthermore a positive correlation coefficient implies a direct relationship between the variables. Rumsey (nd) came up with a summary of the interpretation of the r values as shown in the table.

Sno	r Values	Interpretation
1	Exactly -1	A perfectly downhill (Negative Linear relationship)
2	-0.70	A strong downhill (Negative linear relationship)
3	-0.50	A moderate downhill (Negative relationship)
4	-0.30	A weak downhill (Negative linear relationship)
5	0.00	No linear relationship)
6.	+0.30	A weak uphill (Positive Linear relationship)
7	+0.50	A moderate uphill (positive relationship)
8	+0.70	A strong uphill (A strong uphill (positive linear relationship)
9	Exactly+1	A perfect uphill (positive relationship)

The strength of relationship was also measured using variance (r^2) which also measured the variation of individual scores from the mean.

Qualitative data was organised into themes and reported based on study objectives.

This study was investigating the extent to which selected factors influenced Deaf students' performance in English Composition in K.C.S.E. (Appendix VI).

3.9 Ethical Consideration

Permission to conduct research was obtained from Maseno University Ethical Review Committee, School of Graduate studies, and information so obtained was treated with strict confidentiality and used solely for the purpose of this study. Should there be need to use the information elsewhere or disclosed to third parties, permission would be sought from the respondent or the school authority.

CHAPTER FOUR

RESULTS AND DISCUSSION

4.1 Introduction

This chapter highlights the results and discussion of the data collected during the study on factors influencing performance of Deaf students in English composition in K.C.S.E, the findings of which are presented based on the research objectives. The objectives were: determine the extent to which age at onset of deafness influenced deaf students performance in English composition in K.C.S.E, find out the extent to which availability and use of teaching and learning resources influenced Deaf students performance in English composition in K.C.S.E, establish the extent to which degree of hearing loss influenced Deaf students performance in English composition in K.C.S.E and determine the extent to which teaching and learning strategies influenced Deaf students performance in English composition in K.C.S.E. Each objective was addressed based on research questions and data collected from the questionnaires, interviews and observations. The summaries of the findings are presented in frequencies, graphs, and percentages.

4.2 Age at onset of hearing loss

Table 4: Frequency table showing the categories of hearing impaired learners by age at onset of deafness.

Age at onset of hearing loss	Frequency	percentage	Cumulative Percentage
At Birth	36	38.7	38.7
Between 1 and 3 years	26	28.0	66.7
Between 4 and 6 years	16	17.2	83.9
Between 7 and 12 years	12	12.9	96.8
Above years			
Not Aware	3	3.2	100
Total	93	100	100

From the table majority 36 (38.7%) of the learners were acquired deafness at birth. Followed by those who acquired Deafness before learning spoken language (Between 1 and 3 years). 26 (28%). These are the ones classified as pre-lingually Deaf and have difficulty learning continuous writing in English. Then there was a group that acquired Deafness after learning spoken Language at least mother tongue between age 4 and 6 , 16(17.2%) and those who acquired Deafness after learning second language between 7 and above years, 12 (12.9%). The rest 3 (3.2%) were not aware when they acquired Deafness as their parents passed away before first year of life and care givers were not able to give exact dates.

4.2.1. The extent to which age at onset of deafness influenced Deaf student's performance in English composition in K.C.S.E

The first objective of this study was to find out the extent to which age at onset of deafness influenced Deaf students' performance in English composition in K.C.S.E. The research question

responded to was; to what extent does age at onset of deafness influenced deaf students' performance in English composition in K.C.S.E?

Data regarding the relationship between age at onset of deafness and performance in English composition was collected by means of student questionnaire, head teachers questionnaire and Document analysis guide. Mock results were analysed. Students were also given the same assignment during the data collection period, which were duly marked by class teacher. The results were analysed and performance presented in the tables given below.

Table 5: Analysis of mock results, Pearson correlation

Correlations

Relationship between age at onset of deafness and performance in English composition loss			
Age at onset of hearing loss		Age at onset Mock results composition out of 100	
	Pearson Correlation	1	.363**
	Sig. (2-tailed)		.000
	N	93	93
	Pearson Correlation	.363**	1
	Sig. (2-tailed)	.000	
	N	93	93

** . Correlation is significant at the 0.01 level (2-tailed).

From the Correlation table, there is a positive relationship which is significant at the 0.01 level, and the degree of relationship is moderately strong $r=0.363$ or $r^2 =13\%$

Table 6: Analysis of Essays written during data collection, Pearson correlation

Relationship between age at onset of hearing loss and Age at onset of Learners level of performance in English composition		hearing loss	competence in composition writing
	Pearson Correlation	1	.366**
Age at onset of hearing loss	Sig. (2-tailed)		.000
	N	93	93
Learners level of competence in composition writing	Pearson Correlation	.366**	1
	Sig. (2-tailed)	.000	
	N	93	93

** . Correlation is significant at the 0.01 level (2-tailed).

Head teachers were also asked to rate according to their own opinion the extent to which age at onset of deafness influence performance of Deaf students in English composition in K.C.S.E. Their responses are tabulated below.

Table 7: Head teacher’s opinion on extent to which age at onset of Deafness affects performance in English composition

Head teacher’s opinion on extent to which age at onset of deafness influence performance in English composition	Frequency	Percent
VLE=To a very large extent	2	(50.0)
LE=To a large extent	2	(50.0)
Total	4	(100.0)

From the analysis, Age at onset of Deafness has positive relationship with performance in English composition in K.C.S.E which is moderately strong, $r= 0.366$ or $r^2 =36.67\%$

The head teachers' responses indicated 2 (50%) of the respondents felt that age at onset of deafness affect their performance in English composition to a very large extent (VLE). The other 2(50%) were of the opinion that it affects performance in English composition to a large extent. Their opinions are in tandem with statistical findings. The findings were in agreement with Ademokaya's explanation that pre-lingual hearing impaired persons have impoverished language skills and have little opportunity to communicate in educational and social settings. Maina, 2009 supported this finding and affirmed that, the age at which a student experiences a hearing loss is the critical biological variable affecting language development and hence performance in English composition, which is largely based on language. Mba, 1995 had a similar finding that, the age at which one sustained a hearing loss bears relevance to his/her learning outcomes in school. He went further to explain that, a person who sustained a hearing loss later in life must have acquired some communicative skills for which he or she can function relatively better than the pre-lingual deaf person in academic and interactive engagements. Since under the Vision 2030, the Country is trying to create an inclusive society, K.S.L should be made compulsory in the general curriculum so that it is available in the environment both at home and at school. Children learn Language through interaction like when they are playing together and if all children are exposed to K.S.L the Deaf child will start learning the accessible language (K.S.L) at the same time with a normal hearing child exposed to spoken language. Under Vision 2030, no one should be left behind, we are moving towards modifying the environment to accommodate everyone and language in the environment should be modified to accommodate all human beings.

4.2.2. The extent to which availability and use of teaching and learning resources influenced performance in English composition in K.C.S.E

Data regarding availability and use of teaching and learning resources was collected using Principal's, English teachers' and learners' questionnaire. These were supplemented by classroom observation and English teachers' interview schedule. These were analysed in terms of type, availability, and use and finally the main resource used identified.

Table 8: Resources used in teaching and learning English composition in schools for the Deaf

Resource	Available		Not Available		Adequate		Inadequate		Use	
	F	%	F	%	f	%	f	%	f	%
Books	4	(100)	0	(0.0)	0	(0.0)	4	(100)	4	(100)
Charts	4	(100)	0	(0.0)	0	(0.0)	4	(100)	4	(100)
Peers	4	(100)	0	(0.0)	0	(0.0)	4	(100)	3	(75)
Interpreter	1	(25)	3	(75)	0	(0.0)	1	(25)	1	(25)
Resource persons	4	(100)	0	(0.0)	0	(0.0)	4	(100)	1	(25)
Electronic media	4	(100)	0	(0.0)	0	(0.0)	4	(100)	2	(50)
Chalk board	4	(100)	0	(0.0)	0	(0.0)	4	(100)	4	(100)
Group story telling	4	(100)	0	(0.0)	0	(0.0)	4	(100)	3	(75)
Overhead Projector	4	(100)	0	(0.0)	0	(0.0)	4	(100)	3	(75)

Table 9: Core Text book as per students' responses

Core Text book	Frequency	Percentage
The River and the Source	24	(25.8)
KLB Secondary English	65	(69.9)
Betrayal in the City	4	(4.3)
Total	93	(100)

The results are tabulated above. The use of teaching and learning resources by teachers of English during composition lessons as reported by teachers and students indicated that the main resources used include text books 4(100%), Charts 4(100%) and Chalkboard 4(100%) of which the core text book used according to students was KLB Integrated English 65(69.9%) followed by the set books, the River and the Source 24(25.8%) and Betrayal in the City 4 (4.3%). Sign language interpreters and Resource persons were the least used 1(25%) followed by electronic media 2(50%). The results indicated that the main resource available and used was text book and influenced performance to a small extent. $r = 0.072$ or $r^2 = 0.5\%$

Correlations

	How core Learners level of competence in text book is composition writing shared by students		
	Pearson	1	-.188
How core text book is shared by students	Correlation		
	Sig. (2-tailed)		.072
	N	93	93
Learners level of competence in composition writing	Pearson	-.188	1
	Correlation		
	Sig. (2-tailed)	.072	
	N	93	93

The relationship between the most commonly used resource availability and performance in English composition was found to be positive but very weak, $r=0.072$ or $r^2 = 0.5\%$. Other resources used to supplement text books were charts and chalkboard. This extensive use of text books, charts and Chalkboard as portrayed by the results implied that the use of varied teaching and learning resources during English composition lessons was minimal in Secondary schools for the Deaf. The findings concurred with Maina's 2015 and Nganyi's (2006) reports which confirmed that text books were the main resource used in teaching English. However it contradicts Ogada's (2012) findings, where chalkboard was found to be the most used teaching resource in composition writing in primary schools for the Deaf in Nyanza province of Kenya. Interview with teachers indicated that, the overreliance on text books was due to inadequate preparation time, inadequate reading resources and teacher's lack of creativity. Text books however were found to be useful resources as they provided guideline to the content and

activities that took place within the classroom. However they could not be exclusively depended on to develop competence in communicative language.

Table 10: How core text book is shared by students

How book is shared	Frequency	Percent
One book one student	40	(43.0)
One book two students	19	(20.4)
One book three students	12	(12.9)
One book four students	15	(16.1)
One book five students	5	(5.4)
One book more than five students	2	(2.2)
Total	93	(100.0)

From the table, the main resources used were text books, although they were inadequate to the extent that some books were shared by five students 5(5.4%) and even more than 5 students 2(2.2%) and could not meet the unique needs of all the learners. The results of the inferential statistics indicated that availability and use of teaching and learning resources had positive relationship with performance in English composition in K.C.S.E. which is very weak, $r = 0.072$ or $r^2 = 0.5\%$

Correlations

How the main resource is shared among learners	Learners level of competence in composition writing		
	Pearson	1	-.188
How core text book is shared by students	Correlation		
	Sig. (2-tailed)		.072
	N	93	93
Learners level of competence in composition writing	Pearson	-	.188 ¹
	Correlation		
	Sig. (2-tailed)		.072
	N	93	93

There is need to include visual aids Overhead projectors, videos during the teaching of English composition to hearing impaired learners as they are visual learners. Personal observations and reports from the students, the teachers and the principal indicated overreliance on text books at the expense of visual aids in teaching English composition. Over reliance on Text books while the learners are vocabulary deprived make learning English composition uninteresting.

Table 11: Extra teachers needed as per Head teachers responses

Extra teachers needed	Frequency	Percentage
One	2	(50.0)
Three	1	(25.0)
None	1	(25.0)
Total	4	(100.0)

In addition to the use of teaching and learning resources information was sought on adequacy of the resources ranging from both human to material by means of questionnaire to teachers and head teachers in various schools. Responses from the teachers were tabulated in the table above. According to head teachers, 3(75%) of the targeted schools did not have enough English teachers. School 4 had only 2 English teachers handling forms one to four. The schools needed at least one more English teacher.

Table 12: Syllabus coverage on time

Syllabus coverage on time	Frequency	Percentage
No, teacher cover syllabus on time	4	100.

The table shows that all the English teachers were not able to cover syllabus on time, 4(100%)

Table 13: Teachers feeling towards teaching English composition

	Frequency	Percentage
No, not comfortable	4	100.0

All the teachers interviewed 4(100%) also indicated they were not comfortable teaching English composition to learners with hearing impairment citing lack of understanding of the lesson on part of the learners.

Deaf learners therefore have limited access to useful information which would enhance creativity and composition writing. Lack of interaction with external environment reinforced with deficiency of auditory skills on the part of the learners and overreliance on text books has made composition writing especially creative writing uninteresting and less attractive, the learners are hence unmotivated. The results indicated most teachers rated text books and charts as available but inadequate. Resources like Sign language interpreters, Resource persons, electronic media and overhead projectors were available in some schools but not in others. Simplified English text books, visual aids, newspapers, magazines and computers and overhead projectors were hardly used.

Interview with the teachers on whether they are comfortable teaching English composition to Deaf students indicated that none was comfortable. All the teachers said, they are very uncomfortable since learners do not understand. Teacher 4 recommended that if possible composition to be signed. Teacher 3 said that the hearing impaired learners to be taught Signed Exact English right from class one. Teacher 1 called for, more learning time and utilization of teaching aids.

Table 14: Teacher undergone in-service training

In-service training of teachers of English	Frequency	Percent
Yes, teacher has undergone in-service training	1	25.0
No, teacher has undergone in-service training	3	75.0
Total	4	100.0

Out of the four English teachers who participated in the study, Only 1(25%) had undergone in service training for English teachers, the rest 3(75%) not yet.

This indicated that the teachers are not fully equipped with the necessary skills in handling learners with hearing impairment.

Table 15: No. of years the teacher has been teaching since attaining first Qualification

No of years of experience	Frequency	Percent
1-5 years	3	75.0
6-10 years	1	25.0
Total	4	100.0

From table 18 above, 3 (75%) had less than five years teaching experience while only 1 (25%) had between 6 to 10 years teaching experience.

4.2.3. The influence of Degree of hearing loss on deaf students' performance in English composition in K.C.S.E.

Table 16: Linear regression Analysis of Mock results

ANOVA^a

Model	Sum of Squares	Df	Mean Square	F	Sig.
Regression	9.863	1	9.863	15.364	.000 ^b
Residual	58.417	91	.642		
Total	68.280	92			

a. Dependent Variable: Learners level of competence in composition writing

b. Predictors: (Constant), Learners degree of hearing loss

Data relating to the influence of degree of hearing loss on performance of Form four Deaf learners in English composition in K.C.S.E was collected using Audiogram and categorised using the numerical decibel values assigned to the Audiogram using frequency and Intensity. Most of the students had their audiology assessment reports ready as it is mandatory requirement prior to admission in school or registration with the National Council for persons with disabilities. Those who did not have had their degree of hearing loss taken by Audiology teacher. Results were then related to performance of Deaf students in English composition in 2017 K.C.S.E mock and essay writing given during data collection and then tabulated in frequency table. It was observed that there was significant relationship as shown by linear regression i.e $p=0.000$ which is less than 0.05.

Correlations

	Learners level of competence in composition writing.	Learners degree of hearing loss
Learners level of competence in composition writing.	Pearson Correlation Sig. (2-tailed) N	1 -.380** 93
Learners degree of hearing loss	Pearson Correlation Sig. (2-tailed) N	-.380** 1 93

** . Correlation is significant at the 0.01 level (2-tailed).

Analysis of both 2017 mock results and Essay written during data collection produced similar results that revealed a significant negative relationship between degree of hearing loss and performance in English composition, which is fairly strong, correlation coefficients -0.363 and -0.380., which has a small difference of -0.017. Frequency distribution table indicated that majority of the learners were in the category profound hearing loss (91dB and above)

Table 17: Learners degree of hearing loss

Learner's degree of hearing loss	Frequency	Percent
Normal Hearing (-10 TO 15Db)	3	(3.2)
Slight hearing loss (16 TO 25Db)	7	(7.5)
Mild Hearing loss (26 to 45Db)	8	(8.6)
Moderate Hearing loss (46 to 55Db)	6	(6.5)
Moderately Severe Hearing Loss (56-70 Db)	3	(3.2)
Severe hearing loss (71-90 Db)	7	(7.5)
Profound hearing loss (91 and above)	59	(63.4)
Total	93	(100.0)

From the frequency distribution table, learners with profound hearing impairment form the majority in the study, 91 and above decibels 59 (63.4%). While those with normal hearing form the minority. This study supports the actual poor performance in special schools for the deaf in English as per K.N.E.C results and generally in other subjects since English composition or written English is a service skill that facilitates expression of all subjects taught and examined in English. The findings are in agreement with Moore's (1985), findings that severity of the hearing impairment is closely related to the academic success of hearing impaired students. This indicates that the higher the hearing loss, the more challenges, the learners experiences. Mayaka, (n.d) supports this view by mentioning that hearing provides a basis for almost all kinds of learning an individual is subjected to. This is only possible if one's auditory systems are perfectly developed. The ability to learn effectively is supported to the fullest by the integration of all the five senses as a human being has including the hearing.

Table 18: Degree of hearing loss affect performance in English composition

	Frequency	Percent
VLE=to a very large extent	4	100
Total	4	100

Head teachers were also asked to indicate to what extent degree of hearing loss affected performance in English composition and all of them 4(100%) expressed a similar opinion, to a very large extent, (VLE). This is almost in agreement with statistical figures, which indicated that the degree of hearing loss has negative relationship with performance of Deaf learners which is fairly strong, Pearson correlation coefficient of -0.380. (-38%)

4.2.4. The extent to which teaching and learning strategies influenced performance of form four Deaf students in English composition in K.C.S.E

The fourth objective of this study was to determine the extent to which teaching and learning strategies influenced Deaf student's performance in English composition in K.C.S.E. The research question responded to was; to what extent does teaching and learning strategies influence deaf students' performance in English composition in K.C.S.E? Generally, the following strategies were identified, Class discussion, Dramatization/Demonstration, Group work, Lecture, Question and answer and guided writing. Although the most frequently used method was lecture, guided writing was found to be most effective method of teaching English composition among form four hearing impaired learners, $r=0.934$ or 93.4% The strategies according to teachers and students were listed in the table bellow

Table 19: Teaching strategies as per the teachers' and learners' responses.

Teaching method	Responses from teachers		Responses from students	
	Frequency	Percentage	Frequency	Percentage
Class Discussion	52	55.9	52	55.9
Dramatization	20	21.5	20	21.5
Group Work	34	36.6	34	36.6
Lecture method	74	79.6	74	79.6
Peer teaching	56	60.2	56	60.2
Question and Answers	36	38.7	0	0.0
Guided writing	60	64.0	60	64.0

The study identified the following strategies as the most commonly used. Class discussion 52 (55.9%), Dramatization 20(21.5%), Group work 34 (36.6%), Lecture method 74 (79.6), Peer teaching 56 (60.2%), Question and answer 36(38.7%). Guided writing 60 (64.0%).Both the students and teachers agreed to the teaching methods as being used however responses from students indicated that question and answer was not used. Finally the learners were asked to rate the teaching methods according to their effectiveness. Their responses were tabulated below.

Correlations

		Class Discussion as teaching method	Learners level of competence in composition writing
Class Discussion as teaching method	Pearson Correlation	1	-.185
	Sig. (2-tailed)		.076
	N	93	93
Learners level of competence in composition writing	Pearson Correlation	-.185	1
	Sig. (2-tailed)	.076	
	N	93	93

Relationship between class discussion and learners level of competence in composition writing

In addition, the learners were asked to express their opinion towards learning English, responses were rated on a five point Likert scale.

Table 20: Dramatization as teaching method

Respondents ratings of dramatization as teaching method	Frequency	Percent
Valid		
VE=Very Effective	34	(36.6)
E= Effective	21	(22.6)
LE=Less Effective	13	(14.0)
NE=Not effective	5	(5.4)
Undecided	20	(21.5)
Total	93	(100.0)

Correlations

Dramatization as teaching method		Learners	level	of
		competence in composition writing		
	Pearson Correlation	1	.151	
Dramatization as teaching method	Sig. (2-tailed)		.147	
	N	93	93	
Learners level of competence in composition writing	Pearson Correlation	.151	1	
	Sig. (2-tailed)	.147		
	N	93	93	

Dramatization according to Ngaroga (2005), is a practical form of learning through imitation involving the teacher giving several demonstration of the complete operation with explanation. The learner rated dramatization as a teaching strategy as follows, 34(36.6%) of the respondents classified it as very effective, 21 (22.6%) rated it as effective, 13 (14%) of the respondents said it was less effective, 5 (5.4%) said it was not effective at all, while 20 (21.5%) were undecided.

Table 21: Peer teaching as a method of teaching

Respondents rating of peer teaching as a teaching method	Frequency	Percent
VE=Very Effective	34	(36.6)
E=Effective	32	(34.4)
LE=Less effective	10	(10.8)
NE=Not effective	6	(6.5)
U=undecided	11	(11.8)
Total	93	(100.0)

Peer teaching is where learners are asked to teach or assist each other. In this study, the respondents were asked to rate the effectiveness of peer teaching as a method of teaching English composition.

Their responses are tabulated above. Accordingly, 34 (36.6%) rated peer teaching as very effective, 32 (34.4%) rated it as effective, 10 (10.8%) felt it is less effective while 6 (6.5%) said it is effective and 11 (11.8%) were undecided.

Correlations

Peer teaching as a method of teaching		Learners level of competence in composition writing	
	Pearson Correlation	1	.101
	Sig. (2-tailed)		.335
	N	93	93
	Pearson Correlation	.101	1
	Sig. (2-tailed)	.335	
	N	93	93

The results indicated that there is a significant positive correlation between peer teaching strategy and performance in English composition in K.C.S.E. which is moderately strong, $r=0.335$ or 33.5%.

Table 22: Group work as teaching method

Respondents ratings of group work as a teaching method	Frequency	Percent
VE=Very effective	38	(40.9)
E=Effective	25	(26.9)
LE=Less effective	7	(7.5)
NE=Not effective	12	(12.9)
U=Undecided	11	(11.8)
Total	93	(100.0)

Group work is where learners are organised into groups according to age, ability, interests, mixed ability or based on the topic (Gichuba, Opatsa and Nqutu, 2009). The learners were asked to rate the effectiveness of group work as a method of teaching English composition. The learners had mixed feelings and their responses were tabulated above; some of them, 38 (40.9%) enjoyed working in groups and rated it as very effective, another team, 25 (26.9) rated it as Effective. 7 (7.5%) rated group work less effective while 12 (12.9) felt it was not effective. The rest 11.8% were undecided.

Correlations

		Group work as teaching method	Learners level of competence in composition writing
Group work as teaching method	Pearson	1	
	Correlation		.040
	Sig. (2-tailed)		.705
	N	93	93
Learners level of competence in composition writing	Pearson	.040	
	Correlation		1
	Sig. (2-tailed)	.705	
	N	93	93

Analysis of the relationship between group work as a teaching and learning strategy and performance in English composition has indicated that there is a significant positive relationship which is strong, $r=0.705$ or $r^2 =50\%$.

Table 23: Lecture as teaching method

Respondents ratings of lecture as teaching method	Frequency	Percent
VE=Very effective	27	(29.0)
E=Effective	26	(28.0)
LE=Less effective	11	(11.8)
NE=Not effective	13	(14.0)
U=Undecided	16	(17.2)
Total	93	(100.0)

Respondents also expressed their opinion on lecture as a learning and teaching strategy and their opinions were; 27 (29%) rated it as very effective, 26 (28.0%) as effective, 11 (11.8) as less effective, 13 (14.0%) were of the opinion that it was not effective. The rest 16 (17.2%) were undecided.

Correlations

Lecture as teaching method		Learners level of competence in composition writing	
Lecture as teaching method	Pearson Correlation	1	.169
	Sig. (2-tailed)		.105
	N	93	93
Learners level of competence in composition writing	Pearson Correlation	.169	1
	Sig. (2-tailed)	.105	
	N	93	93

Analysis of the relationship between lecture as a teaching strategy and performance in English composition in K.C.S.E revealed that there is a positive relationship which is very weak, $r=0.105$ or 10.5%.

Table 24: Guided writing as teaching method

Respondents rating of guided writing as a teaching method	Frequency	Percent
VE=Very effective	32	34.4
Effective	20	21.5
LE=Less Effective	11	11.8
NE=Not Effective	11	11.8
U=Undecided	19	20.4
Total	93	100.0

Guided composition writing comes in many formats such as, arranging sentences in sequence, filling in blank spaces and completing tables (K.I.E, 2006). In this study, learners were asked to rate the effectiveness of guided writing as a method of teaching English composition. All the 93 valid respondents exhibited different feelings towards the strategy. The respondents were asked to rate the effectiveness of guided writing as a teaching strategy. Their opinions were; 32 (34.4%) rated it as Very effective, 20 (21.5%) rated it as effective, whereas 11 (11.8) felt it was less effective. A further 11 (11.8%) had a feeling that it was not effective at all while 19 (20.4) were undecided.

Correlations

		Guided writing as teaching method	Learners competence in composition writing
	Pearson Correlation	1	-.009
	Sig. (2-tailed)		.934
	N	93	93
	Pearson Correlation	-.009	1
	Sig. (2-tailed)	.934	
	N	93	93

Inferential statistics indicated that there was a significant positive relationship between guided writing and performance in English composition among form four Deaf learners in K.C.S.E, which was very strong $r=0.934$ or $r^2 = 87\%$.

Table 25: Question and Answer as teaching method

Respondents rating of guided writing as a teaching method	Frequency	Percent
VE=Very effective	17	18.3
Effective	28	30.1
LE=Less Effective	20	21.5
NE=Not Effective	13	14.0
U=Undecided	15	16.1
Total	93	100.0

Question and answers is a method of teaching whereby both the teacher and the learner are actively involved in the learning process. The teacher asks questions and the learner responds and vice versa. In this study, learners were asked to rate the effectiveness of Question and answer as a method of teaching English composition.

All the 93 valid respondents exhibited different feelings towards the strategy. 17 and (18.3%) rated question and answer as a very effective method of teaching, 28 (30.1%) rated it as effective, 20 (21.5) rated it as less effective, 13 (14.0%) rated it as not effective while 15 (16.1%) were undecided.

Correlations

Question and answer as teaching method	Learners level of competence in composition writing
Question and answer as teaching method	Pearson Correlation 1 .175
	Sig. (2-tailed) .094
	N 93 93
Learners level of competence in composition writing	Pearson Correlation .175 1
	Sig. (2-tailed) .094
	N 93 93

Statistical inference indicated that there is a positive relationship between question and answer as a teaching method and performance in English composition among form four Deaf learners in K.C.S.E which is very weak $r=0.094$ or $r^2 = 0.9\%$.

Table 26: Class discussions as a teaching method

Respondent's ratings of class discussion as teaching method	Frequency	Percentage
Very Effective (VE)	59	(63.4)
E (Effective)	13	(14.0)
Less Effective (LE)	8	(8.6)
Not Effective (NE)	10	(10.8)
U=Undecided	3	(3.2)
	93	(100.0)

Discussions are open ended forums, collaborative exchange of ideas among a teacher and students or among students for the purpose of furthering students thinking, learning, problem solving, understanding or literary appreciation, (Witherspoon, 2016). Class discussion as a teaching strategy is where learners are given opportunity to express themselves freely and build up their self-esteem.

From the table and chart, 59 (63.4%) of the learners rated class discussion as very effective, 13 respondents (14.0%) said it was effective, 8(8.6%) said it was less effective, 10(10.8%) said it was not effective, while 3(3.2%) were undecided. The results are in tandem with the findings of Gichuba, Opatsa &Nguchu (2009) who saw discussion as effective as it helps learners develop their language and confidence when they carry do it in a free and relaxed environment.

Correlations

Class Discussion as teaching method		Learners level of competence in composition writing	
	Pearson	1	-.185
	Correlation		
Class Discussion as teaching method	Sig. (2-tailed)		.076
	N	93	93
	Pearson	-	1
Learners level of competence in composition writing	Correlation	.185	
	Sig. (2-tailed)	.076	
	N	93	93

Inferential statistics indicated that there is significant positive relationship between class discussion as a teaching strategy and performance in English composition which is very weak, $r=0.076$ or 0.6%

Table 27: We are comfortable sitting in a row in our classroom

	Frequency	Percent
SA=Strongly Agree	23	24.7
A=Agree	17	18.3
U=Undecided	20	21.5
D=Disagree	11	11.8
SD=Strongly disagree	22	23.7
Total	93	100.0

From the table, 23 (24.7%) of the respondents strongly agreed that they are comfortable sitting in a row in their classrooms, 17 (18.6) agreed to the sitting strategy, 11 (11.8%) Disagreed that they were comfortable sitting in a row. While 22 (23.7%) Strongly disagreed that they were comfortable sitting in a row in the classroom.

Table 28: Desks should be arranged in a circular pattern in our classroom

	Frequency	Percentage
SA=Strongly Agree	42	45.2
Agree	Q1	17.2
U=Undecided	19	20.4
D=Disagree	10	10.8
SD=Strongly Disagree	6	6.5
Total	93	100.0

On classroom arrangement, 42 (45.2%) strongly agreed and 16 (17.2%) agreed that desks should be arranged in a circular manner to ease discussion. 19 (20.4%) were undecided, 10 (10.8%) disagreed to the strategy while 6 (6.5) strongly disagreed that desks should be arranged in a circular pattern in their classrooms.

CHAPTER FIVE

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

5.1. Introduction

This chapter provides a summary of the findings, conclusions and Recommendations for this study.

5.2. Summary of findings

The Topic of this study was, “Selected Factors Influencing Deaf Students performance in English Composition in Secondary schools in Kenya”. The study focused on Age at onset of Deafness, availability and use of teaching and learning resources, degree of hearing loss and strategies used in teaching and learning English composition in Secondary schools for the Deaf. The findings of this study were summarised thematically according to research objectives from personal Observation, students, Head teachers and English teachers reports.

5.2.1. The extent to which age at onset of Deafness influenced Deaf student’s performance in English composition in K.C.S.E.

According to the study;

- (i) Pearson Correlation Coefficient revealed that age at onset of Deafness had significant positive influence on Deaf students performance in English composition which was moderately strong, $p=0.000$ and $r=0.36$, or $r^2 =0.13$ or 13%
- (ii) 36 (38.7%) of the respondents acquired deafness at birth followed by 26 (28.0%) who acquired deafness between age 1 and 3. The study further observed that the two categories formed majority of the learners in special schools for the Deaf.
- (iii) All principals 4 (100%) were of the opinion that age at onset of deafness influenced their performance in English composition to a very large extent.

Deafness was found to result in delay in language development. Which influenced performance in English composition to a moderately large extent. This accounts for the poor performance in special schools for the hearing impaired, not only in English composition but also in other subjects that are taught and examined in English given that English is a service skill.

5.2.2. The extent to which Availability and use of teaching and learning resources influence Deaf students performance in English composition in K.C.S.E

The second objective of this study was to find out the Extent to which availability and use of use of teaching and learning resources influenced performance of in English composition in K.C.S.E. The study found out that,

- (i) The main resource used in the teaching and learning of English composition according to students was text book of which the core was K.L.B Integrated English, and its influence on performance of the learners was found to be very weak, $r=0.072$, $r^2 = 0.0052$ or 0.5%.. Charts, Chalkboard, Overhead projector and electronic media were used as supplements. The least used resources were, Sign Language Interpreter and Resource persons.

5.2.3. The extent to which degree of hearing loss influenced performance of Form four hearing impaired learners in English composition in K.C.S.E.

The third objective of this study was to establish the extent to which degree of hearing loss influenced performance of deaf students in English composition in K.C.S.E. The study focused on measuring degree of hearing loss using audiogram. The study found out that.

- (i) Linear regression analysis at $\alpha=0.05$ revealed a significant negative relationship between degree of hearing loss and performance in English composition ($p=0.000$), which was

fairly strong, $r = -0.380 = 0.144$ or 14.4%. According to the results, Majority, 59 (63.4%) of the students had profound hearing loss, 91 Db and above. The results therefore explain why performance in special schools for the Deaf is low. Degree of hearing loss determines the language the learner will acquire as first language, which is the home language or majority language acquired naturally during critical language acquisition period (0-3 years) and the medium of instruction the learner is likely to use, second language learned mainly in school environment between age from three years onwards, those with normal to moderate hearing loss could benefit from spoken language and had minimal challenges in writing composition than those with severe to profound hearing loss.

5.2.4. The extent to which teaching and learning strategies influence performance of hearing impaired learners in English composition.

The fourth objective of this study was to determine the extent to which teaching and learning strategies influenced Deaf students' performance in English composition in K.C.S.E. in relation to teaching methods, language of instruction, classroom arrangement and utilization of resources. The study observed that;

- (i) In relation to teaching strategies, the study established that lecture was the most frequently used method although guided writing was most influential in teaching and learning of English composition in Special Schools for the Deaf, and had positive relationship with performance which was very strong, $r = 0.93$, $r^2 = 0.86$ or 86%. This was followed by group work $r = 0.70$, $r^2 = 0.49$ or 49% peer teaching, $r = 0.33$, $r^2 = 0.1089$ or 10.9% ;Lecture, $r = 0.10$, $r^2 = 0.01$ or 1% Question and answer 0.09, $r^2 = 0.0089$ or 0.81%

(ii) Most teachers used Total communication followed by American and Signed English. The learners are disadvantaged when learning English composition since they normally use KSL. There is language barrier in this scenario.

(iii) Resources used were mostly text books of which KLB Integrated English was singled out by students as the core text book although it was inadequate. Worse still the learners are deficient in vocabulary and the core text book is not at their functioning level. (Ogutu, 2017). Visual aids were rarely used yet the students are visual learners.

(iv) The learners had low level of competency in both creative and functional composition.

5.3. Conclusion

The following conclusions were made on the basis of this study.

The first objective was to determine the extent to which age at onset of Deafness influenced Deaf students' performance in English composition in K.C.S.E. This study concluded that there is a significant positive relationship between age at onset of Deafness and performance in English composition, which is fairly strong $r=0.363$ or $r^2 = 0.132$ or 13.2%

The second objective was to find out the extent to which availability and use of teaching and learning resources influenced performance of Form four Deaf students in English composition in K.C.S.E. The study concluded that, text books of which the core was KLB integrated English was the most commonly used resource and had weak positive influence on the performance $r=0.072$, $r^2= 0.05184$ or 5.2%. Other resources that were used include; charts, chalkboard guest speakers and Sign language interpreters. The text book though the main resource was found to be inadequate and not at the functioning level of the learner, since the learners are Vocabulary deficient. The inadequacy and inefficiency influenced performance of the learners in English composition to a very small extent $r= 0.072$, $r^2= 0.05184$ or $r^2= 0.52\%$

The third objective was to establish the extent to which Degree of hearing loss influenced Deaf students' performance in English composition in K.C.S.E. The study concluded that there is a significant negative relationship between degree of hearing loss and performance in English composition which is moderately strong, $r = -0.380$, $r^2 = 0.144$ or 14%

The fourth Objective of this study was to determine the influence of teaching and learning strategies on Deaf students' performance in English composition in K.C.S.E. This study concluded that guided writing was the most effective strategy and had a very strong positive relationship with performance in English composition, $r = 0.93$, $r^2 = 0.8649$ or 87%. Generally the study concluded that the teaching and learning of English composition in schools for the Deaf was not effective given that the correlation of teaching and teaching and learning strategies was very high $r = 0.93$, $r^2 = 0.8649$ or 87%.

5.4. Recommendations

Based on the objectives, this study came up with the following recommendations.

- i. The first objective was to determine the extent to which age at onset of Deafness influenced Deaf students performance in English composition in K.C.S.E, This study recommended that learners be categorised according to age at onset of Deafness, the learning needs of each category be taken into consideration and instruments for setting up learning objectives for each category be identified. Where possible the learners be taught signed exact English right from class one so that they grow up with English instead of giving too much attention to KSL only. This recommendation is in agreement with Noam Chomsky's theory 1965, that human beings and Sandra's 2015 findings, that asserts that human beings are capable of learning any accessible language provided it is accessible

- during critical language acquisition period. The study also recommended the possibility of signing English composition instead of writing it.
- ii. The second objective was to find out the extent to which availability and use of teaching and learning resources influenced Deaf students' performance in English composition in K.C.S.E. The study recommended that there should be more visual resources and simplified English text books that are at the learners' functional level. The study also recommended that Curriculum be adapted in terms of time and content, more time should be allocated to learners with hearing impairment since reading a book in sign language needs more time than reading verbally. In addition, the study recommended that number of Composition words be reduced for learners with hearing impairment and that Signed Exact English Dictionary and text books be developed for learners from class one to class eight.
 - iii. The third objective of this study was to establish the extent to which degree of hearing loss influenced Deaf students' performance in English composition in K.C.S.E. The study recommended that degree of hearing loss be taken into account when admitting students since those with normal to moderate hearing loss characterise different learning needs compared to those with profound hearing loss. The former can learn second language with ease by building their vocabulary on residual language acquired early in life, while the latter experiences serious challenges learning second language. This is in agreement with Ogutu, 2017, Ogada 2012 and Maina 2015, that early language exposure facilitates learning second and subsequent languages.

- iv. The fourth objective of this study was to determine the extent to which teaching and learning strategies influenced Deaf students' performance in English composition in K.C.S.E.
- v. The study recommended that teaching strategies should be learner friendly and varied according to the needs of different categories of learners. Language of instruction to be adapted to meet the needs of all categories of learners. Those who became Deaf at birth or shortly after are pre-lingual and are more comfortable with KSL, and therefore should be allowed to sign English composition rather than write it. Those who are post lingual or have normal to moderate hearing loss prefer signed English or Signed Exact English or American Sign Language supplemented with Lip reading.
- vi. Since Kenya Sign Language is one of the Official National Language alongside English and Kiswahili, it should be made compulsory in the general Curriculum to create an inclusive society where no one is left behind in accordance with EFA goal.

5.5. Suggestions for further Research.

- (i) The influence learning materials on performance of Deaf learners in English composition in Secondary schools in Kenya.
- (ii) The effects of in-service course for teachers of English in special schools for the Deaf on Performance in English composition in secondary schools in Kenya
- (iii) The impact of early exposure to Sign Language on performance of form four Deaf students in English composition in K.C.S.E.
- (iv) The influence of classroom communication on performance of form four Deaf students in English composition in K.C.S.E.

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APPENDICES

Appendix I. Principals' Questionnaire

Instructions

The purpose of this study is to find out factors influencing Performance of form four Deaf learners in English Composition in K.C.S.E. Kindly fill in the spaces provided with appropriate information or tick where applicable. The information provided will be treated with strict confidentiality and will only be used for the purpose of this study.

1. Name of school.....
2. For how long have you been principal of your school?
3. How many times has your school done K.C.S.E Examination?
4. Indicate in the following table the total enrolment of students in your school and number of English teachers.

Total enrolment of students and number of English teachers

Class	Number of students	Number of English Teachers
Form 1		
Form 2		
Form 3		
Form 4		

5. Do you have sufficient English teachers as per the school requirements?
6. If your answer to 5 above is no, How many more English teachers do you need?
7. Are you satisfied with the performance of hearing impaired students in English in KCSE Examination in your school? Tick () as appropriate

Yes () No ()

Give reasons for your answers.....

1. Indicate in the Table below the extent to which the following factors influence the performance of hearing impaired students in English in K.C.S.E Examination in your school. The options are: To Avery Large Extent (VLE), To a large Extent (LE), To a small Extent (SE), Not at all (NA), Undecided (U) Tick () as Appropriate

S/No	FACTOR	VLE	LE	SE	NA	u
1	Students degree of hearing loss					
2	Students Negative attitude towards English					
3	Student's age at onset of Deafness					
4	Student's deficiency in English Language					
5	Inadequate teaching and Learning materials					
6	Inadequate Physical facilities					
7	Class organization					
8	Inadequate equipment					
9	Inadequate instructional time					
10	Inadequate coverage of the syllabus					
11	Teacher's negative attitude towards teaching English					
12	Teacher's Negative attitude towards Deaf students					
13	Teacher's proficiency in Kenya Sign Language					
14	Teachers academic and professional Qualification					
15	Teacher's experience					
16	Teacher's in service training					

Factors influencing Deaf students' performance in English composition in K.C.S.E

2. As the principal of the school, what are your suggestions for improving performance of Hearing impaired learners in English Composition in K.C.S.E examination?

.....

.....

.....

.....

.....

.....

.....END.....

THANK YOU FOR YOUR PARTICIPATION

Appendix II. Lesson Observation Schedule (LOS) Form four students

Strategies used for teaching English Composition in form four.

Strategy used	Satisfactory	Fair	Unsure	Not satisfactory	Not used at all
1. Story signing					
2. Co-operative teaching					
3. Drama /play					
4. Signing song					
5. Demonstration					
6. Guided writing					
7. Group work					
8. Peer teaching					
9. Teaching Aids					
10. Repetition					
11. Others					

Key; others include, Lip reading, speech reading

Appendix III. English Teachers Questionnaire (ETQ)

Instructions

The purpose of this study is to investigate the factors influencing performance of Form four hearing impaired Learners in English Composition in K.C.S.E in Nyanza region. Your school is a participant. Kindly fill in the spaces provided with appropriate information or tick where applicable. The information provided will be treated with utmost confidentiality and only used for the purpose of this study.

A. Background information

1. School

2. What is your gender (Tick (√))

Male ()

Female ()

3. Indicate in the following table the total enrolment in the classes that you teach

Total enrolment in classes taught

Class	Boys	Girls	TOTAL
FORM 1			
FORM 2			
FORM 3			
FORM 4			

4. For how many years have you taught English since attaining first professional Qualification? Tick (√)

- a) Less than 1 year ()
- b) 1-5 years ()
- c) 6-10 years ()
- d) Over 10 years ()
- e) In service Training ()

5. Have you attended any in-service training on teaching English to the hearing impaired learners? Yes () No ()

If yes please enter the details of in-service training attended

In-service training on teaching English to the hearing impaired learners

Year	Title of training	Duration	Venue	Organizers
2004				
2005				
2006				
2007				
2009				
2010				
2011				
2012				
2013				
2014				
2015				
2016				

6. For each of the training attended rate its relevance in meeting the needs of Deaf students in English (tick (√))

Relevance of trainings in meeting the needs of Deaf students in English

Training	Very relevant	Relevant	No Relevance

B. Time on task, Teaching methods and Medium of Instruction

1. How many lessons do you have for teaching English per week?
2. Out of the total number of lessons in the timetable per week, how many do you use for teaching (i) Grammar? (ii) Essay writing?
3. Do you have extra teaching time outside the normal school time table? (Tick (√) where applicable)

Yes

No

If yes specify the duration

- (i) 1 hour per week ()
- (ii) 2 hours per week ()
- (iii) 3 hours per week ()
- (iv) 4 hours per week ()
- (v) 5 hours per week ()

4. If no provide reasons.

.....

.....

.....

.....

.....

.....

.....

.....

.....

5. Which of the following methods do you employ in teaching English Composition to hearing impaired students? (Tick where applicable)

- a) Class discussion
- b) Group work
- c) Lecture Method

- d) Peer Teaching
- e) Question and Answer
- f) Play and Dramatization
- g) Examples
- h) Others

If others

specify.....

6. Which mode of communication do you use when teaching written English? (tick where applicable)

- a) Kenyan Sign Language only
- b) American Sign Language

c) Signed English

d) Signed Exact English

e) Total Communication

7. Resources used for teaching language

(Tick where appropriate)

Resources used for teaching English composition.

Resource	Available	Not Available	Adequate	Inadequate	Use
1.Books					
2.Charts					
3.Peers					
4.Interpreter					
5.Resource persons					
6.Electronic media					
7.Chalk Board					
8.Group story telling					
9.By-Stander Observation					
10.Overhead projector					

THANK YOU FOR YOUR PARTICIPATION IN THIS EXERCISE

Appendix IV. English Teacher's Interview Schedule

1. Which mode of communication do you prefer to use in teaching of English composition and why?
2. Which topics in English do you find difficult to teach to hearing impaired students in your school? Give reasons. How do you cope with the difficulties?
3. Which teaching methods do you find best in teaching English Composition to hearing impaired students? Give reasons
4. Do you always cover the syllabus on time?
5. Are you comfortable with teaching English Composition to learners with hearing impairment?
6. Do you use Electronic media in teaching English Composition in your school?
7. As English teacher what suggestions can you make to improve the performance of hearing impaired students in English Composition in K.C.S.E Examination?

Appendix V. Learners Questionnaire

Instructions

The purpose of this study is to investigate selected factors influencing performance of hearing impaired students in English Composition in K.C.S.E.

This Questionnaire is meant to collect Data for the study entitled, “Selected Factors influencing Deaf Students Performance in English Composition in K.C.S.E. Your School is a participant.

This Questionnaire is part of the study; you are requested to complete it as adequately as you can.

The information you provide will be treated with strict confidentiality. Do not write your name nor append your Signature anywhere.

SECTION A

1) Your Schools name.....

2) What is your Gender? Tick (√) as applicable

(a) Male ()

(b) Female ()

3) K.C.P.E Total marks.....K.C.P.E grade in English.....

4) When did you lose your hearing? (Tick (√) where applicable)

(a) I was born deaf ()

(b) Between age 1 and 3 years ()

(c) Between 5 and 10 years ()

(d) Between 10 and 17 years ()

(e) Not aware ()

5) What is the educational level of your Father? (Tick (√) as appropriate)

a) Never went to school ()

b) Primary level ()

c) Secondary Level ()

d) Certificate Level ()

e) Diploma ()

f) Graduate ()

6) What is educational level of your mother? (Tick (√) as appropriate)

a) Never went to school ()

b) Primary and below ()

c) Secondary ()

d) Certificate ()

e) Diploma ()

f) Graduate ()

7)

i) What is your fathers' occupation (Tick (√) where appropriate)

a) Civil Servant ()

b) NGO Employee ()

c) Company employee ()

d) Businessman ()

e) Famer ()

f) Other ()

ii) If other Specify

8)

i) What is your mother's occupation? (Tick (√) where appropriate)

a) Civil Servant ()

b) NGO Employee ()

c) Company employee ()

d) Businesswoman ()

e) Famer ()

f) Other ()

ii) If other specify.....

9) Are your parents motivating you to learn English? (Tick (√) as appropriate)

a) Yes ()

b) No ()

c) Occasionally ()

10) What grade did you attain in last term's end term exams?

11) How often do you have English Composition lessons?

- a) Daily ()
- b) Weekly ()
- c) Monthly ()
- d) Never at all ()

12) Do you have any extra lessons in English Composition apart from normal class hours?

Tick (✓) one

- a) Yes ()
- b) No ()

13)

i) If your answer to question number 12 is yes specify duration

- a) 1 hour per week ()
- b) 2 hours per week ()
- c) 3 hours per week ()
- d) Others

ii) If others explain

14) How many times do you do English composition test per term? Tick as applicable

- a) More than four hours ()
- b) Three times ()
- c) Less than three times ()

15)

i) Which of the following methods does your teacher use when delivering content to your class? (Tick (√) where appropriate)

- a) Class discussion ()
- b) Dramatization ()
- c) Group work ()
- d) Lecture methods ()
- e) Peer teaching ()
- f) Question and answers ()

ii) Rate the teaching methods as per their level of effectiveness.

Very effective (VE), Effective (E), Less effective (LE), Not effective (NE)

Rating of teaching methods as per their level of effectiveness

Method of Teaching	VE	E	LE	NE
Class discussion				
Peer Teaching				
Group work				
Lecture Methods				
Examples				
Role play/ Dramatization				
Guest speaker				
Story telling				
Guided writing				
Question and answer				

16) Which is the core English Text book in your class?

- a) The river and the source
- b) KLB, Integrated English
- c) Betrayal in the City

17) How do you share copies of the core text book in your class?

Tick (√) as appropriate

- a) 1 book 1 student ()
- b) 1 book 2 students ()
- c) 1 book 3 students ()
- d) 1 book 4 students ()
- e) 1 book 5 students ()
- f) 1 book more than 5 students ()

SECTION B.

Select and Tick (√) the column that best agrees with your opinion towards learning of English composition: Strongly Agree (SA) , Agree (A), Undecided (U), Disagree (D) and Strongly Disagree (SD)

SECTION C:

Student degree of hearing loss (To be taken using Audiogram)

CLASSIFICATION	RANGE IN dB	Tick where appropriate
Normal Hearing	-10-15	?
Slight Hearing Loss	16-25	?
Mild Hearing Loss	26-45	?
Moderate hearing loss	46-55	?
Moderately severe hearing loss	56-70	?
Severe hearing loss	71-90	?
Profound Hearing Loss	91 and above	?

Section D

Write an essay ending with the following words It was the most interesting day in my life.

Section E

Write a letter to your Uncle informing him that you are going to visit him after your K.C.S.E exams in November,

END

THANK YOU FOR YOUR PARTICIPATION

Appendix VI. Document Analysis Guide

The following Likert scale will be used to determine learners' level of competence

VLL : Very Low Level 0-9 marks

LL : Low Level 10-13 marks

ML : Medium Level 14-15 marks

HL : High Level 16-17 marks

VHL : Very high level 18-20 marks

Creative Writing

Learner's level of competence in Creative Writing

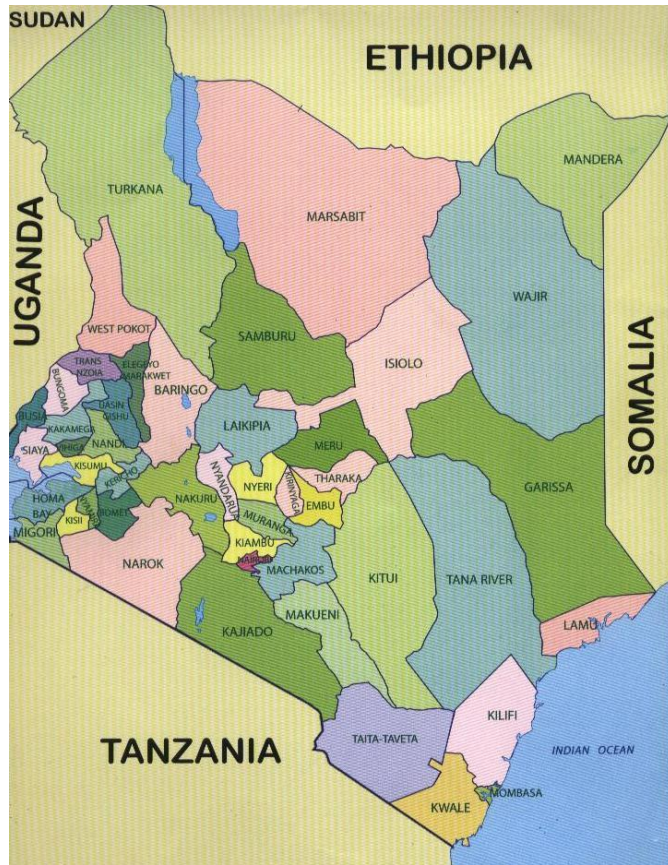
Skill	VHL	HL	ML	LL	VLL
a. Spelling					
b. Vocabulary choice					
c. Vocabulary range					
d. Sentence construction					
e. Coherence					
f. Use of signalling words /phrases					

Functional Writing

In this guide, the learners were rated on a three point scale in regard to formatting, since in formatting, components of the document can either be, appropriately used, inappropriately used or not used at all.

Component	Appropriate usage	Inappropriate usage	Not at all
1.Address			
2. Date			
3. Salutation			
4. Introduction			
5. Paragraphing			
6. Conclusion			
7. Signing off			

Appendix VII. Kenya Political Map Showing Counties



Map 1: Kenya political map showing counties

Appendix VIII. First Language Acquisition Profile (0 – 6 Years of Age)

First language acquisition profile (0 - 6 years of age)

FIRST LANGUAGE ACQUISITION PROFILE (0-6 YEARS OF AGE)		
PERIOD	DEVELOPMENT MILESTONES	CHARACTERISTICS
0-3 Months	<ul style="list-style-type: none"> - Birth cry - Cooing - Babbling 	<ul style="list-style-type: none"> - All children cry at birth - Voice production and development - Listening skill: pitch & loudness, intonation - Beginning of articulation of speech sounds e.g. /a-a-/ - Repetition of syllables e.g./ba-ba-ba/ - Turn taking - Use of cry to communicate: pain, hunger, pleasure, fear - Breathing & breath control - Awareness of environmental sounds
3 – 6 Months	<ul style="list-style-type: none"> - Babbling continues - Lalling (4 – 6 Months) - Jargon Speech 	<ul style="list-style-type: none"> - Child begins to consciously listen to the speech sounds in the language around him/her: sounds not found in the languages around him are dropped i.e. acquisition of the phoneme inventory of the 1st language. - Uses nonsense syllables with adult intonation. - It is said child attempt of sounds found in human languages. - Vocal play: voice production - Auditory skills, auditory discrimination for speech sounds, auditory sequencing, auditory memory. N:B – Deaf, deaf blind, do not develop these skills unless they are provided with hearing aids - Turn taking

6 – 9 Months	<ul style="list-style-type: none"> - Receptive language - Jargon Speech continues 	<ul style="list-style-type: none"> - Begins to understand some words and commands e.g. “Yes” / “No” - Speaks “jargon” with adult intonation, rhythm - Responds to own name - Turn taking
9 – 12 Months	<ul style="list-style-type: none"> - 1st Word 	<ul style="list-style-type: none"> - Initiates others, mother , caretaker - Lots of pronunciation errors e.g. omissions (begging , substitution, distortions) - Understands simple instructions without cues e.g. Give daddy doll - Jargon speech continues
12 – 18 Months	<ul style="list-style-type: none"> - One Word Stage 	<ul style="list-style-type: none"> - One word stage functions as a sentence - VOC 10-20 words at 18 months - Generalizations Nouns - Speech errors - Responds to lots of commands, request
18 - 24 Months	<ul style="list-style-type: none"> - Two Word Stage 	<ul style="list-style-type: none"> - Two words function as sentence e.g. DADDY DOOR / DADDY DOG - Pronunciation errors - Generalization – Nouns/ Plurals child’s - VOC 200 words by 24 months
24 Mths – 3 Yrs	<ul style="list-style-type: none"> - Telegraphic Speech 	<ul style="list-style-type: none"> - Three words function as sentences - Generalizations <ul style="list-style-type: none"> ▪ Nouns ▪ Plurals ▪ Tenses - Pronunciation errors - Talks only of what is present & now - Child begins to use singular/plural - Begins to understand what happened yesterday, will happen tomorrow (tense)

		<ul style="list-style-type: none"> - Voc 200 – 300 words and 900 words by 3 yrs - Comprehends all simple sentences - Uses personal pronouns - Listens to short simple stories - Asks many questions
3 – 4 Years		<ul style="list-style-type: none"> - Speech fairly fluent - Can talk about past and future - Asks many Wh – questions - Good memory of events - Can understand complex instructions e.g. go to the cupboard and bring me a saucer - Can tell simple stories - VOC – 900 – 1500 words by 4 years - Mean sentence length 4.5
4 – 6 Years		<ul style="list-style-type: none"> - Fairly fluent in self expression - Can hold a conversation - Can carry out instructions - Mean sentence length 5 -6 words - Comparative adjectives use e.g. small , smaller , smallest - VOC 2500 – 2800 Words

Appendix IX. Analysis of Kenya Certificate of Secondary Education (K.C.S.E) 2014 of Kuja School for Deaf Mixed

Analysis of KCSE 2014 results of Kuja School for the Deaf Mixed

RANK	SUBJECT	2014			2015			
		ENTRY	M.S	M.G	ENTRY	MS	MG	DEV
1	KSL	51	7.862	B-	54	6.96	C+	-0.902
2	CRE	16	4.06	D+	23	5.52	C	+1.46
3	HISTORY	51	2.57	D	54	2.81	D	+0.24
4	ENGLISH	51	2.56	D	54	2.76	D	+0.2
9	BIOLOGY	51	1.80	D-	54	2.72	D	+0.92
7	AGRICULTURE	33	1.97	D-	27	2.62	D	+0.65
5	BUSINESS	18	2.89	D	27	2.29	D-	-0.6
8	CHEMISTRY	28	1.90	D-	38	2.11	D-	+0.21
6	GEOGRAPHY	35	1.91	D-	31	1.84	D-	-0.09
11	PHYSICS	23	1.40	E	16	1.75	D-	+0.35
10	MATHEMATICS	51	1.24	E	54	1.33	E	+0.09

Performance in English in Fr. Oudera Secondary School for the deaf

FR. OUDERAA SEC SCHOOL FOR H.I NYANGOMA KCSE 2015 PERFORMANCE

565 BUSINESS STUDIES.

S/NO	SCHOOL	DISTRICT	ENTRY	A	A -	B+	B	B-	C+	C	C-	D+	D	D -	E	M/S 2015	M/S 2014	M/S 2013	DEVIATION
1	FR. OUDERAA SEC	BONDO	19						4	4	9	1	1			5.4736	3	2.333	2.4736
2																			
	TOTAL																		

311 HISTORY

S/NO	SCHOOL	DISTRICT	ENTRY	A	A -	B+	B	B-	C+	C	C-	D+	D	D -	E	M/S 2015	M/S 2014	M/S 2013	DEVIATION
1	FR. OUDERAA SEC	BONDO	32					1	3	5	7	6	7	2	1	4.56	4.55	1.9167	0.01
2																			
	TOTAL																		

312 GEOGRAPHY

S/NO	SCHOOL	DISTRICT	ENTRY	A	A -	B+	B	B-	C+	C	C-	D+	D	D -	E	M/S 2015	M/S 2014	M/S 2013	DEVIATION	
1	FR. OUDERAA SEC	BONDO	25											9	10	6	2.12	2.125	1.25	-0.005
2																				
	TOTAL																			

122 MATHEMATICS ALT B

S/NO	SCHOOL	DISTRICT	ENTRY	A	A -	B+	B	B-	C+	C	C-	D+	D	D -	E	M/S 2015	M/S 2014	M/S 2013	DEVIATION
1	FR. OUDERAA SEC	BONDO	34						1	1		1	11	20		2.647	2.65	1	-0.003
2																			
	TOTAL																		

101 ENGLISH

S/NO	SCHOOL	DISTRICT	ENTRY	A	A -	B+	B	B-	C+	C	C-	D+	D	D -	E	M/S 2015	M/S 2014	M/S 2013	DEVIATION
1	FR. OUDERAA SEC	BONDO	34										1	13	20	2.4411	3.45	2	-1.089
2																			
	TOTAL																		

Appendix X. Adapted Craig and Collins (1970) interaction category system for communicative interaction in classroom for the Deaf.

Teacher Talk	Response	<p>1. Acceptance of feeling. Accepts and clarifies an attitude or the feeling tone of a learner in a non-threatening manner. Feelings may be positive or Negative. Predicting and recalling of feelings are included.</p> <p>2. Commendation. Commends learner action or behaviour. Jokes that release tension, but not at the expense of another individual; nodding head or saying “Um hm?” or “ proceed” are included</p> <p>3. Accepts or Uses ideas of pupils. Clarifying, building, or developing ideas suggested by a pupil. Teacher extension of learner ideas are included but as teacher brings more of his/her own ideas into play, shift to category five.</p>
		<p>4. Asks Questions. Asks a question about content or procedure, based on teacher ideas, with the intent that a learner will answer.</p>
	Initiation	<p>5. Lecturing. Giving facts or opinions about content or procedure, expressing his own ideas, giving his/her own explanation, or citing an authority other than a pupil.</p>
		<p>6. Giving Directions. Directions, commands, or orders to which a learner is expected to comply.</p>
		<p>7. Criticizing/Validating/justifying authority. Statements intended</p>

		To change pupil behaviour from non acceptance to acceptance pat bawling someone out; stating why the teacher is doing what he is do extreme self-reference.
	Response	8. Pupil-talk-response. Talk by pupils in response to teacher. Teacher initiates the contact or solicits pupil statement or structures the situation. Freedom to express own ideas is limited.
	Initiation	9. Pupil-talk-initiation. Talk by pupils in which they initiate, express own ideas initiating a new topic, freedom to develop opinions and a line of thoughtful questions; going beyond the existing structure.
	Silence	10. Silence or Confusion. Pauses, short periods of silence and periods of confusion in which communication cannot be understood by the observer.
	Teacher and student talk	11. Communication Modes: Combined (C),Fingers-spelling (F), Manual (M), Speech (S), Non-Manual signals (N), Gesture (G), Written (W), (Evasive action)

Appendix XI. Sample English Composition written by a pre-lingually Deaf Learner

Section D

Write an essay ending with the following words It was the most interesting day in my life.

END

? THANK YOU FOR YOUR PARTICIPATION

I am want you travelled is the enjoy to want come friend
from is the have travelled must assemble have other. This is
friend must couple any enjoy that enjoy from see both
College. have must other interesting have was the city
Kisumu travelled have friend. I will come visit want
travelled must

you friend
Thank you.

D2
20

Appendix XII.

Sample English Composition written by a Post- Lingual Deaf Learner

Section D

Write an essay ending with the following words It was the most interesting day in my life.

END

THANK YOU FOR YOUR PARTICIPATION

The day I will never forget

It was a coldy ~~the~~ morning when I wake up, birds were singing with their melodies praising God for the morning. ~~from~~ ~~to~~ I leave the bedroom and went to visit frogs in his kingdom. ~~from~~ day after the birth I went back to the house where I went to prepare my tea with four tired around my behalf. It was ~~more~~ than my parents were sleeping. I went to and wore my clothes and take my tea later I went to school. When I arrived at school my teacher on duty was at the gate of the school and when I saw him my mind thought that I was late to school here five I went with out carrying my bag. So he stopped me and asked my many question and late allow me to go into the class room. Truly I humbled God that day for it was the most interesting day in my life.

14/20

Appendix XIII. Research Permit



Appendix XIV. Authorization to Collect Research Data



MASENO UNIVERSITY

**SCHOOL OF EDUCATION
DEPARTMENT OF SPECIAL NEEDS EDUCATION & REHABILITATION**

Tel: +254 (057) 351622/20, 351008, 351011,
Fax: +254 057- 351221,351462,351153

Private Bag,
MASENO

E-mail www.maseno.ac.ke

Kenya

Date: July 24, 2017

RE: OYIER RUTH AWINO – MED/ED/0070/2013

This is to confirm that Oyier Ruth Awino is a student at the department of Special Needs Education Maseno University carrying out a research titled **Selected Factors Influencing Deaf Students Performance in English Composition in Secondary Schools in Kenya**. Kindly give her the necessary support in collecting data.

Thank you.



Dr. Everline Nyokabi

Chairperson, Special Needs Education



MASENO UNIVERSITY ISO 9001:2008 CERTIFIED



Appendix XV: Certificate of Completion



MASENO UNIVERSITY
DEPARTMENT OF SPECIAL NEEDS EDUCATION

INTERNAL MEMO

From: Dr. Joel Okutoyi

November 13, 2019

To: Dean, SGS

RE: CERTIFICATE OF COMPLETION

Your memo Ref MSU/SGS/EXAM/32 dated October 25th 2019 refers.

I have re-examined the M.ed thesis for Ruth Awino Oyier- PG/MED/070/12 entitled "The influence of Selected Factors on Academic Performance of Deaf Students in English Composition in Secondary Schools in Kenya" and wish to confirm that she has addressed all the issues raised during the defence. The thesis is now adequate in content and format.

Thank you.


Dr. Joel Okutoyi