

**ASSESSMENT OF ENGLISH FUNCTIONING LEVEL OF CLASS THREE
PRELINGUALLY DEAF LEARNERS IN KENYA**

BY

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DEGREE OF DOCTOR OF PHILOSOPHY IN SPECIAL NEEDS EDUCATION**

DEPARTMENT OF SPECIAL NEEDS EDUCATION AND REHABILITATION

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DECLARATION

DECLARATION BY CANDIDATE:

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DEDICATION

This work is dedicated to my wife, Florence Atieno Ogutu, and children: Mervin Ochieng , Barry Songa , Brenda Amondi and Whitney Atieno.

ABSTRACT

Learners acquire language when they are taught at their functioning levels. Class III Prelingually Deaf learners in Kenya are taught English at Class III level. Evaluation tests have indicated they are not functioning at the level. The tests, however, did not show the actual functioning level. The purpose of the study was to assess the learners' English functioning level. Objectives were to: find out the learners' functioning level in grammar; find out functioning level in reading comprehension; find out functioning level in expressive written English; determine the relationship between the learners' performance in grammar and reading comprehension; determine the relationship between performance in grammar and expressive written English. Conceptual framework showing independent and dependent variables was used. Mixed research designs were employed. Study population consisted of 337 Class III prelingually deaf learners and 65 Class III English teachers. Multi-stage and purposive sampling techniques were used to select 178 learners and 16 teachers. Data was collected using a test, interview schedule and document analysis schedules. The instruments were verified for validity and tested for reliability. Data was analyzed using descriptive and inferential statistics. None (0.0%) of the learners obtained the criterion pass mark of 50%. Grammar, reading comprehension and expressive written English skills the learners mastered were those they were expected to acquire in Class I. The learners lacked mastery of expected grammatical categories, morphological and syntactic structures, reading comprehension and expressive written English skills. The learners' English functioning level was at Class I level at the beginning of the school year. Positive relationship was found between performance in grammar and reading comprehension ($r = 0.265$, $n = 178$, $p < 0.05$); and between grammar and expressive written English ($r = 0.302$, $n = 178$, $p < 0.05$). Increase in performance in grammar resulted in corresponding increase in performance in reading comprehension and expressive written English. Grammar accounted for 7% of the learners' functioning level in reading comprehension ($r = 0.265$, $r^2 = 0.07 = 7\%$) and 9% in expressive written English ($r = 0.302$, $r^2 = 0.09 = 9\%$). Mastery of grammar was a principal determinant in mastery of reading comprehension and expressive written English. It was recommended that prelingually deaf learners in Kenya be taught English at their functioning levels irrespective of grade levels. The findings may be used to teach Class III prelingually deaf learners in Kenya English at their functioning level and by the Ministry of Education to inform policy.

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ABBREVIATIONS AND ACRONYMS

ASL	American Sign Language
BSL	British Sign Language
CDE	County Director of Education
CLA	Communicative Language Ability
CLAP	Critical Language Acquisition Period
DEO	District Education Officer
EARC	Educational Assessment & Resource Centre
FIG	Figure
HI	Hearing Impairment
HOH	Hard of Hearing
KICD	Kenya Institute of Curriculum Development
KIE	Kenya Institute of Education
KSL	Kenyan Sign Language
L 1	First Language
L 2	Second Language
PRE-LD	Prelingually Deaf
POST-LD	Postlingually Deaf

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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 reading and writing skills at every stage of the curriculum irrespective of the circumstances (UNESCO, 2010, 2014, 2015). Country Progress Reports to United Nations Educational, Scientific and Cultural Organization (UNESCO), however, show 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 Metrics Taskforce; 2013; UNESCO 2010, 2014, 2015)

The findings were supported by studies by Davidson and Hobbs (2013), Global Partnership for Education (2012), Luckner and Handley (2008), Migaard and Mingat, (2012) which also showed that over 20% of learners from developing countries stay in school up to four years without mastering the necessary written language skills. Similar trends have been observed in Kenya where studies have shown that Class VII hearing learners cannot read and write work meant for Class II learners (Uwezo Kenya, 2015). KSDC (2006) and Makumi (1995) also found that over 90% of Prelingually Deaf (PRE-LD) learners in Kenya graduate from Primary school unable to read and write.

Since learners acquire language best when they are taught at their functioning levels, UNESCO, calls for assessment of all learners at every stage of the curriculum to identify and offer suitable support to those at risk of failing to achieve expected learning outcomes (UNESCO, 2014, 2015). Four main types of tests are used in language assessment: aptitude tests, language tests for placement, language proficiency tests and achievement tests.

Aptitude tests are aimed at identifying individual talents and potential ability in language. They are also used to predict future performance in language. Placement tests such as school readiness tests are used to determine whether learners have the necessary language skills required in a given program. Language proficiency tests are used to determine whether a learner has the necessary language skills to be able to use the target language proficiently for a given purpose such as proficiency in a language as a medium instruction. Achievement tests measure present level of performance in relation to mastery of a skill or knowledge which has been acquired through teaching or formal learning (ABC, 2000; American Educational Research Association, 1999; Bachman, 1990, 1996; Borg, 1981; Thorndike, R., L. and Hagen, E.,P. (1977)

Two main types of achievement tests are used in language assessment: norm-referenced assessment tests and criterion-referenced assessment tests. Norm-referenced tests are used when assessing the functioning level of a learner in relation to the performance peers of the same grade or age. Criterion-referenced tests are used to assess the functioning level of a learner in relation to the expected curriculum outcomes without reference to any other learner (Borg, 1981; Bachman, 1990; Bachman and Palmer, 1996)

A criterion-referenced test was used in the current study. The test enabled the researcher to determine the functioning levels of Class III PRE-LD learners in grammar, reading comprehension and expressive written English based on the expected curriculum outcomes by the end of Class III.

Available records indicate that since the first Schools for the Deaf were established in Kenya in 1958 and 1960, PRE-LD learners have been experiencing difficulties mastering written English across the curriculum. During the period 1958 – 1977 when the schools followed

curricula developed by individual schools, the learners graduated from school after eight years of Primary education illiterate or semi-illiterate (KSDC, 1976). Similar trends in achievement were exhibited during the period 1978 -1988 when the schools followed a national English curriculum (KIE,19780) exclusively developed for Schools for the Deaf in Kenya by Kenya Institute of Education. It was found that Class IV PRE-LD learners who had followed the curriculum from Class I to IV graduated from Class IV without mastering the expected reading and writing skills (MOE, 1987). Consequently, the regular school curriculum was introduced in all schools for the Deaf in 1988. Since then PRE-LD learners in Kenya are expected to master sufficient command of English by the end of Class III as their hearing peers (KIE, 2004a).

The learners' English mean scores in District Evaluation Tests, however, indicate that they are not functioning at Class III level as expected (Table 1).

Table 1: Class III Prelingually Deaf Learners' English Mean Scores in District Evaluation Tests: 2010 - 2012.

DISTRICT	2010		2011		2012	
	PRE-LDL (%)	HL (%)	PRE-LDL (%)	HL (%)	PRE-LDL (%)	HL (%)
Bungoma	20.0	65.8	19.4	67.6	20.4	60.9
Kericho	21.5	69.9	29.9	68.6	19.0	59.3
Kilifi	22.2	56.4	24.8	65.6	19.8	57.0
Machakos	20.1	64.6	21.5	61.2	21.6	67.9
Mombasa	29.7	65.7	22.5	63.0	22.7	61.1
Muranga	23.9	60.2	28.1	59.4	29.7	62.9
Nakuru	24.5	61.8	28.0	63.7	29.2	60.2
Nandi	25.3	59.5	26.8	63.8	28.0	65.1

Criterion Pass Mark: 50%

Source: District Education Office, Bungoma; Kericho; Kilifi; Machakos; Mombasa; Muranga; Nakuru; Nandi (2013).

Key:

PRE-LDL: Prelingually deaf learner.

HL: Hearing learner

From the Table, the learners consistently recorded mean scores ranging from 19.0 – 29.7% during the period 2010-2012. None of the learners (0.00%) obtained the criterion pass mark of 50%. On the other hand, hearing peers recorded mean scores of 56.4 - 69.9% in the same tests with over 50% of them consistently obtaining the criterion pass mark during the period

The results indicated that PRE-LD learners were functioning below Class III level in English. However, the results did not show the learners' functioning levels to facilitate teaching at a suitable level(s).

PRE-LD learners' functioning levels in grammar, reading comprehension and expressive written language have been established in several countries to facilitate intervention at suitable functioning levels. The functioning level in English grammar of Elementary and High school PRE-LD learners in USA is at Elementary School Grade I level or below (Traxler, 2000). The level is also at Grade I level or below in Britain (Powers, 2002; Marschalk, O'Neill & Arendt, 2014). The studies showed that the learners had limited vocabulary and lacked mastery of language structure to be able to construct grammatically correct sentences in English. The learners' sentences tended towards the grammatical structure of American Sign Language (ASL) and British Sign Language (BSL) respectively.

The findings were consistent with other studies which also showed that PRE-LD learners' low functioning levels in grammar were due to deficiency in vocabulary and language structure (Berent,1993,2001; Ivimey,1976; Lederberg, Schick and Spencer, 2012; Miller,2000, 2004, 2007; Moeller, Tomblin,Yoshinaga-Itano, Conner and Jerger, 2007; Quigley and King, 1980; Quigley and Power, 1977; Shagga,2012; Weizerman,2001; Wilbur and Quigley, 1975; William,2012). Based on these findings, prelingually deaf learners in USA and Britain have been taught English grammar at their functioning levels irrespective of grade levels with improved performance (Marschark, O'Neil & Arendt 2014; Marschark & Knoors, 2012; Moeller, Tomblin,Yoshinaga-Itano, Conner and Jerger, 2007; Qi and Mitchell,2012).

The findings, however, related to PRE-LD learners who had been exposed to language during the Critical Language Acquisition Period (CLAP) of 0-3 years of age.(2012; Marschark and Knoors, 2012; Mayberry,2002; Mayberry & Lock. 2003). PRE-LD learners in Kenya join

school at the age of 3-6 years without prior exposure to Kenyan Sign Language (KSL) or any other language during CLAP due to lack of early identification and language intervention. (KIE, 2004b; KSDC, 2006). The finding was supported by results of a baseline survey during the current study which showed that out of the 178 learners in the study, only one (0.6%) learner who was a deaf child of a deaf parent joined school with mastery of Kenyan Sign Language (KSL) L1. The remaining 177 (99.4%) learners who were deaf children of hearing parents had joined school at the age of 3-6 years without mastery of any language and were using gestures, facial expressions, pointing and natural signs as the primary modes of communication. Children who begin to acquire language after the CLAP tend to lag behind peers in language development (Berent, 2001; Easterbrooks, Lederberg, Miller, Bergerson and Conner, 2008; Emmerrey, 2001; Lederberg, Schick and Spencer,2012; Marschark and Knoors, 2012; Mayberry,2002; Mayberry & Lock. 2003).

Findings by Traxler (2000) and Powers (2002) also related to PRE-LD learners who had acquired English in an environments where it was a home and majority language. PRE-LD learners in Kenya acquire English in an environment where it is not a home or majority language (Makumi, 1995; KSDC, 2006) Language is best acquired through interaction with the users in a rich language environment. When the input is comprehensible and adequate, grammar is acquired naturally (Brown,2000; Chomsky, 1959, 1965; Krashen, 1985; Land and Smith ,2006; Rochemont, 1986. Findings by Traxler (2000) and Powers (2002) may not, therefore, reliably be applied to PRE-LD learners in Kenya due to differences in language backgrounds

The findings also related to PRE-LD learners who started acquiring English with mastery of Sign Language as a First Language (L1). PRE-LD learners in Kenya begin to acquire English without mastery of Sign Language or any language as L1.(KSDC, 2006; KIE, 2004b)

Mastery of L1 enhances the acquisition of Second Language (L2) through linguistic transfer.(Cummins,1991; 2006; Wendy and Lillo-Martin, 2006. Findings by Traxler (2000) and Powers (2002) cannot, therefore, reliably be used to determine the English functioning level of PRE- LD learners in Kenya due to differences in language backgrounds.

Studies in Africa have also shown that PRE-LD learners lack the expected English grammar skills at Primary and High school levels. Ikonta & Maduekwe (2005) and Ademokoye (2007) found that learners with hearing impairment in Nigeria lacked mastery of the expected English vocabulary and sentence structure .In Kenya studies have also shown that prelingually deaf learners lack mastery of the expected English grammar skills at both Primary and Secondary school levels. Ogada (2012) found that Class VII learners with hearing impairment in Nyanza Province, Kenya lacked English vocabulary and sentence patterns to be able to write a composition. The studies, however, did not show the learners' functioning levels in grammar.

From the literature reviewed, the English grammar functioning level of Class III PRE-LD learners in Kenya is currently unknown and there is need to determine the level to facilitate teaching at a suitable level.

Reading comprehension functioning levels of PRE-LD learners have also been established in several countries and the learners' are taught at suitable levels. The reading comprehension functioning level of Elementary and High School PRE-LD learners in USA is at Elementary School Grade IV level or below (Traxler, 2000). It is also at Grade IV level or below in Britain (Powers, 2002). The level, however, is at Grade I or below in The Netherlands (Wuauters, van Bon and Tellings, 2006). And Spain (Montreal and Hernandez, 2005). The studies showed that although the learners' mastery of word recognition and spelling was

equivalent to that of their hearing peers, they lacked mastery of the expected vocabulary and language structure to be able read and understand at sentence and passage levels. The findings were consistent with Antia, Jones, Reed and Kreimeyer (2009), Chi (2000), Luckner and Handley (2008) who also found that PRE-LD learners' low functioning levels in reading comprehension were due to lack of vocabulary and language structure.

The findings, however, related to PRE-LD learners who had mastered Sign Language as a First Language (L1) during CLAP. The learners, therefore, had the opportunity to acquire knowledge of the world around them before school through interaction with parents, siblings, and other members of the family who had been trained in Sign Language through early intervention.. PRE-LD learners in Kenya start learning KSL when they join school at the age of 3-6 years or even later. They mainly use gestures as the primary mode of communication before school. The parents and family members also do not know KSL (KSDC, 2006; Makumi, 1995). The learners, therefore, had limited or no opportunity to acquire knowledge of the world around them before school due to the communication barrier between them and their parents. Consequently, they begin to acquire reading comprehension with limited knowledge of the world around us compared to PRE-LD learners who had mastery of sign language before school.

Knowledge of the world around us which forms language content is a prerequisite to the acquisition of reading comprehension (AL-Hilawani, 2003; Eastbrooks, Lederberg, Miller and Bergerson, 2008; Jackson, Paul and Smith, 1997; Lederberg, Schick and Spencer, 2012; Miller, 2010b; Miller, Kargin, Guldenoglu, Rathmann, Hauser & Spurgeon, 2012; Pressley, Wood, Woloshyn, Martin, King and Menke, 1992; Spires and Donley, 1998).

Findings by Traxler (2000); Powers (2002); Wauters, van Bon and Tellings (2006); Montreal and Hernandez (2005), may not, therefore, reliably be applied to PRE-LD learners

in Kenya.

In Africa, Inkonta and Mudduekwe (2005) and Ademokoya (2007) found that Primary and High school PRE-LD learners in Nigeria were unable to read and understand at sentence and passage levels due to lack of mastery of vocabulary and sentence structure. In Kenya, MOE (1987), Makumi (1995) and KSDC (2006) found that PRE-LD learners in Kenya graduated from Primary School unable to read and write. Maina (2009) found that Form IV learners in Kenya lacked the necessary English skills to sustain comprehension of sentences in mathematics word-problems.

The studies, however, did not show the learners' functioning levels in reading comprehension. From the literature reviewed, the reading comprehension functioning level of Class III PRE-LD learners in Kenya is, currently, unknown and there is need to determine the level to facilitate teaching at a suitable level.

Functioning levels of PRE-LD learners in expressive written English have been established in several countries and are being used to teach the learners at their functioning levels irrespective of grade levels. Expressive written English functioning level of Elementary and High school PRE-LD learners in USA has been found to be below basic level which is equivalent to Elementary School Grade I level or below.(Traxler, 2000).. The level is also at Elementary School Grade 1 level or below in Britain (Powers, 2002). The studies showed that the learners lacked the expected vocabulary and language structure to be able to express themselves using grammatically English sentence. The findings were consistent with similar studies which also showed that Elementary and High PRE-LD learners were lagging behind the regular school curriculum in written English (Moeller, Tomblin, Yoshinaga-Itano, Conner & Jerger, 2007; Marschark & Knoors, 2012; Marschark, O'Neill & Arendt, 2014;

Meadow-Orlans, Spencer & Koester, 2014).

The finding, however, related to prelingually deaf learners who had acquired English in an environment where it was a home and majority language. Prelingually deaf learners in Kenya acquire English in an environment where it is not a home or majority language (KSDC, 2006). The findings by Traxler (2000) and Powers (2002) may not, therefore, reliably be applicable to PRE-LD learners in Kenya due to differences in language learning environments.

In Africa, Ikonta & Maduekwe (2005) and Ademakoye (2007) found that Primary and High school learners with hearing impairment in Nigeria lacked mastery of vocabulary and sentence structure to be able to express themselves in written English at sentence level. Class VII learners with hearing impairment in Nyanza Province, Kenya, have been found to lack mastery of vocabulary and sentence structures to be able to write a composition (Ogada, 2012). The studies, however, did not show the learners' functioning levels in expressive written English.

From the literature reviewed, expressive written English functioning level of Class III PRE-LD learners in Kenya is currently unknown and there is need to determine the level to facilitate teaching at a suitable level.

Mastery of grammar is a prerequisite to acquisition of reading comprehension PRE-LD learners who lack mastery of vocabulary and sentence structure have been found unable to sustain comprehension at sentence and passage levels (Miller, 2000; Kyle and Harris, 2006; Wauters, van Bon, Telling and van Leeuwe, 2006; Maina 2009). The findings were consistent with Pagliaro and Ansell (2002) and Zevenberg, Hyde and Power (2000) who also found that PRE-LD learners were deficient in vocabulary and sentence structure to sustain reading comprehension. The findings, however, did not show the relationship between the learners'

performances in grammar and performance in reading comprehension.

Maina (2015), found a positive relationship between the performance of Form Four PRE-LD learners in Kenya in English grammar and their performance in reading comprehension ($r=0.83$, $n=79$, $p=0.01$). The shared variance between the two variables was $r^2=0.68=68\%$. The results showed that 68% of the learners' mastery of reading comprehension could be accounted for by their mastery of English grammar. The result meant that at Form IV level, the learners primarily relied on grammar in their interpretation of meaning of texts.

From the results, the learners' knowledge of grammar had a significant influence on their functioning level in reading comprehension. The finding was consistent with the Theory of Principles and Parameters (Chomsky and Lasnik, 1993) which holds that mastery of grammar is a prerequisite to acquisition of reading comprehension. It was also supported by Goff, Pratt and Ong (2005), Kyale and Harris (2010b), Marschark and Knoors (2012), Mayberry (2012) and Moeller, Tomblin, Yoshinaga-Itano, Conner and Jerger (2007) who found that mastery of grammar is a principal contributor to PRE-LD learners' mastery of reading comprehension.

The findings, however, related to PRE-LD learners in High School and upper classes in Primary School High School learners who were expected to have mastered sufficient command of morphological and syntactic structures. The current study, however, related to PRE-LD learners who were still in the foundation classes in Primary School. PRE-LD learners in foundation classes who are yet to master the grammatical structure of a written language relying more on other cues to interpret written texts. Such cues include those within the text such as content words and those outside the text such as prior knowledge relating to the text being read (Easterbrooks, Lederberg, Miller, Bergerson and Conner, 2008); Dyer, MacSweeney, Szezerbinski and Campbell, 2003; Kyale and Harris, 2006, 2010a; Harris and

Morrema, 2006)

Learners who lack the necessary grammar skills are also deficient in written language (Lederberg, Schick and Spencer, 2012; Marschak and Knoors, 2012; Qi and Mitchell, 2012). The findings were consistent with the Theory of Principles and Parameters (Chomsky and Lasnik, 1993) which holds that mastery of grammar is a prerequisite to the acquisition of expressive written language. The findings were supported by Ogada (2012) who found that Class Seven learners with Hearing Impairment in Nyanza Province, Kenya were unable to write a simple composition due to lack of vocabulary and mastery of sentence structure.

The findings, however, related to PRE-LD learners' who had been exposed to English for at least seven years through Primary education. The current study relates to learners in foundation classes in Primary School.

1.2 Statement of the Problem.

Learners acquire language best when they are taught at their functioning level. PRE-LD learners in Kenya are expected to master sufficient command of English by the end of Class III to be able to use the language as a compulsory medium of instruction as from Class IV. Class III PRE-LD learners are, therefore, taught English at Class III level as per the curriculum. District Evaluation Tests, however, indicate that the learners are not functioning at the level. During the period 2010-2012, the learners recorded mean scores of 19.0 – 29.7% with no learner obtaining the criterion pass mark of 50% compared to their hearing peers who recorded mean scores of 56.6 – 69.9% in the same tests during the period. The results did not show the learners' functioning levels and the skills they had in grammar, reading comprehension and expressive written English. The English functioning level of Class III PRE-LD learners in Kenya is, therefore, currently unknown.

Functioning levels of PRE-LD learners in grammar, reading comprehension and expressive written English have been established in several countries including USA, Britain, The Netherlands and Spain. The findings are being used to teach the learners English at their functioning levels, irrespective of grade levels, with improved performances. The functioning levels, however, related to PRE-LD learners who had been exposed to language during the Critical Language Acquisition Period (CLAP) of 0-3 years of age and who were acquiring English in an environment where it was a home and majority language. Prelingually deaf learners in Kenya begin to acquire English at the age of 3-6 years of age or later without prior exposure to KSL or any other language during CLAP. They also acquire English in an environment where it is not a home or majority language. The findings may not, therefore, reliably be applied to PRE-LD learners in Kenya due to differences in language backgrounds.

Studies in Nigeria and Kenya have shown that PRE-LD learners lack the expected grammar, reading comprehension and expressive written English both at Primary and Secondary School levels. However, the findings did not show the learners' functioning levels. Information that can be used to teach Class III PRE-LD learners in Kenya English at their functioning level is, therefore, currently lacking. There is need to determine the level to facilitate suitable intervention.

1.3 Purpose of the Study

The purpose of the study was to assess the English functioning level of Class III prelingually deaf learners in Kenya.

1.4 Objectives of the Study

Objectives were to:

- (i)** Find out the functioning level of Class III prelingually deaf learners in English grammar.
- (ii)** Find the functioning level of Class III prelingually deaf learners in reading comprehension.
- (iii)** Find out the functioning level of Class III prelingually deaf learners in expressive written English.
- (iv)** Determine the relationship between Class III prelingually deaf learners' performance in grammar and reading comprehension.
- (v)** Determine the relationship between Class III prelingually deaf learners' performance in grammar and expressive written English.

1.5 Research Questions

Research questions were:

- i)** What is the functioning level of Class III prelingually deaf learners in English grammar?
- ii)** What is the functioning level of Class III prelingually deaf learners in reading comprehension?
- iii)** What is the functioning level of Class III prelingually deaf learners in expressive written English?
- iv)** What is the relationship between Class III prelingually deaf learners' performance in grammar and reading comprehension?
- v)** What is the relationship between Class III prelingually deaf learners' performance in grammar and expressive written English?

1.6 Assumption of the Study

- Class III prelingually deaf learners had been taught English from Class 1-III using the recommended English Curriculum from Kenya Institute of Curriculum Development (KIE, 2004a).
- Class III PRE-LD learners were taught by competent English teachers of Deaf learners.

1.7 Scope of the Study

- The study was confined to the assessment of English functioning level of Class III prelingually deaf learners in public Primary Schools for the deaf in Kenya.

1.8 Limitations of the Study

The written language test used to collect data could have caused test anxiety or examination fever among the learners and their English teachers. This was addressed by assuring the learners and the teachers that the results were not going to be used to discriminate against them in any way. They were also assured that the results would not be used to for any comparison among themselves or with any other learners.

1.9 Significance of the Study

The study showed the functioning level in grammar, reading comprehension and expressive written English of Class III prelingually deaf learners who began to acquire English at the age of 3 – 6 years or later without prior exposure to language during the critical language acquisition period of 0-3 years of age. The learners had also acquired the language in an environment where it was not the home or majority language. This is a new contribution to knowledge which may be used by teachers to teach Class III PRE-LD learners English at their functioning level. The finding may also be used by the Ministry of Education to decide

whether Class III Pre-LD learners should continue using English as a compulsory medium of instruction and examination as per current policy or there is need to review the policy.

1.10 Conceptual Framework

Theory of Principles and Parameters (Chomsky and Lasnik, 1993) was adapted and used to develop a conceptual framework for the current study. The theory holds that, unlike other animals, human beings are born with an innate mental capacity which enables them to acquire any human language. According to the theory, learners acquire language mastering the principles and parameters that govern the grammar of the target language through interaction with the users of the language. When the input is comprehensible and adequate, grammar is acquired naturally. Mastery of grammar entails acquisition of grammatical categories, morphological structure and syntactic structure of the target language. Comprehension and expressive language skills are mastered by using language grammar in context for communication

Mastery of receptive language entails comprehension at word, sentence and passage levels. Including pragmatic use of language. Mastery of expressive language involves expression at word, sentence and story level including pragmatic use of language (Chomsky, 1959, 1965; Krashen, 1985).

Chomsky (1965); Forder and Garrette (1966) distinguished two forms of language abilities: linguistic competence and language performance. Linguistic competence which is a language user's knowledge of the principles and parameters of a language is an abstract entity present in the user's mind. It enables the user to detect errors made by self and others during language use. Language performance, on the other hand, is the use of principles and parameters of the target language for comprehension and expression in form of observable

behavior such as speech, reading, writing and or signing.

In language assessment, it is language performance that is assessed (Bachman, 1990; Bachman and Palmer, 1996). In the current study, the theory was adapted by excluding features relating to phonological knowledge and pragmatics which were subsumed under reading comprehension and expressive written English. It was then used to develop a conceptual framework showing mastery of grammar, reading comprehension and expressive written English as the independent variables and functioning as the dependent variable (Figure 1).

INDEPENDENT VARIABLES

DEPENDENT VARIABLE

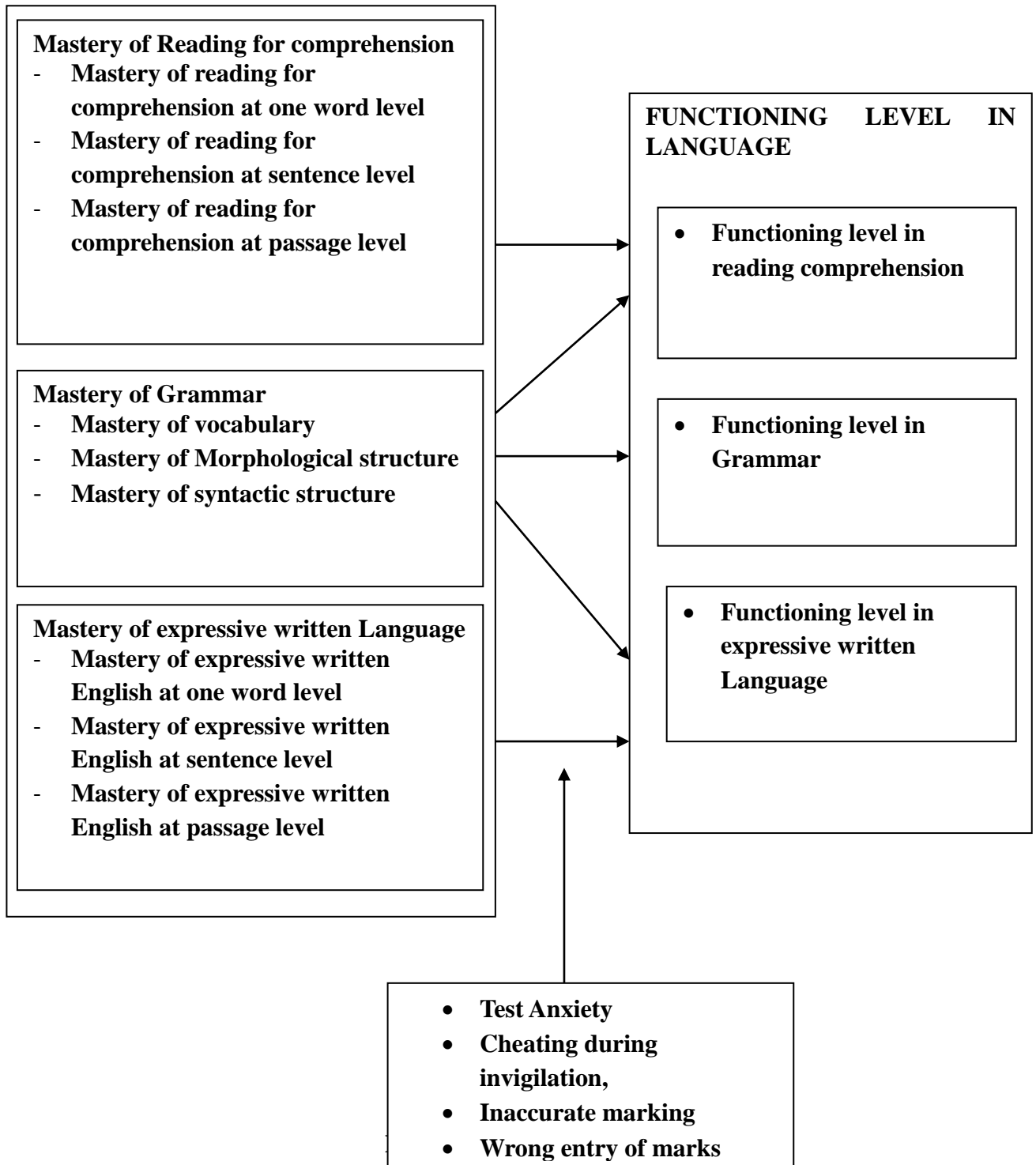


Figure 1: Conceptual Framework

1.11: Operational Definition of Terms

Assessment: The process of determining a learner's functioning levels in grammar, reading comprehension and expressive written English; relationship between learners' performance in grammar and reading comprehension and expressive written language.

Deaf learner: A learner with severe or profound hearing impairment.

District Evaluation Tests: a test set by a District Education Office for the public schools within the district.

Functioning level: Grammar, reading comprehension and expressive written English skill mastered by a learner.

Hard of Hearing Learner: A learner with mild to moderate hearing loss.

Kenyan Sign Language: The language of the Deaf community in Kenya

Learner with Hearing Impairment: A learner with any form of hearing loss which may be mild, moderate, severe or profound

Lower Primary School: Classes I – III.

Mild Hearing Loss: Hearing loss ranging from 0-25 decibels

Moderate Hearing Loss: Hearing loss ranging from 26-70 decibels

Parent: A parent or a guardian of a prelingually deaf child.

Performance: A learner's score in a test at a given grade level.

Post-lingually deaf learner: A learner who became deaf after acquiring a spoken language(s)

Pre-lingually deaf learner: A learner born deaf or who became deaf before acquiring any spoken language.

Prior Knowledge: knowledge of the physical, social and socio-economic and socio-cultural environment the learner

Profound Hearing Loss: Hearing loss ranging from 90-120 decibels or above

Severe Hearing Loss: Hearing loss ranging from 71-89 decibels

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

Literature related to PRE-LD learners' functioning level in English have been reviewed according to the research objectives as follows: assessment of Class III PRE-LD learners' functioning level in English grammar, assessment of Class III PRE-LD learners' functioning level in reading comprehension, assessment of Class III PRE-LD learners' functioning level in expressive written English, the relationship between performance in English grammar and reading comprehension of Class III PRE-LD learners in Kenya, the relationship between performance in grammar and expressive written English of Class III PR-LD learners in Kenya, language assessment.

2.2 Assessment of Class III PRE-LD Learners' Functioning Level in English Grammar

Literature related to Class III PRE-LD learners' functioning level in English grammar have been reviewed as follows: factors influencing PRE-LD learners' functioning level in English grammar; Class III PRE-LD learners' functioning level in English grammar.

2.2.1 Factors Influencing Functioning Level in English Grammar

The following have been advanced as the main factors influencing prelingually deaf learners' functioning level in spoken language grammar: Language input, mastery of language during the critical language acquisition period, interdependence of first and second languages.

i) Language Input

The Syntax Theory of language acquisition (Chomsky, 1965) holds that human beings, unlike other animals, have an innate capacity which enables them to acquire the grammar of any

language. Mastery of the grammar of a language entails mastery of the vocabulary, grammatical structure and rules of the target language (Chomsky, 1972, 1981). Learners acquire grammar through social interactions with the users of the target language in different language domains including motherese, play, family conversations, language games, storytelling, and language use during household chores, electronic mass and social media. When the input is compressible and adequate, grammar is acquired naturally (Krashen, 1985).

PRE-LD learners who have no access to suitable hearing aids or cochlea implants have limited or no auditory language input. They, therefore, experience difficulties acquiring auditory perceptual skills such as auditory discrimination, auditory memory, auditory sequencing, selective listening, tone, intonation and stress. Mastery of auditory perceptual skills is a prerequisite for acquisition of spoken language (Perfeetti and Sandak, 2000; Simple,2000; Weizerman and Snow, 2001). Studies have also shown that limited written language input is a contributing factor to PRE-LD learners' low functioning levels in grammar, reading comprehension and expressive written language. The studies showed that PRE-LD learners who acquire written language relying solely on reading have less language input compared to their hearing peers acquiring spoken language who receive input through overhearing and direct address (Brabbham & Lynch-Brown, 2002; Lederberg, Schick and Spencer, 2012).

Hearing learners begin to acquire written language at the age of 3-4 years of age when they already have sufficient mastery of the spoken form of the target language (Paul, 2007; Paul and Courtenay, 2012; Readenc, Moore, & Rickelman, 2004). This means that when being read to aloud, the input is comprehensible to hearing learner. The learner's task is to discover how the input is represented in written form. In contrast, PRE-LD learners only receive input

in form of written symbols in a language yet to be acquired. PRE-LD learners have a double task of first discovering the meaning of the input before finding out how the written symbols represent the input in written form (Dyer, MacSweeey, Szezerbinski and Campbell,2003)

PRE-LD learners also have limited language input during any activity. While hearing learners can simultaneously get language input through the auditory channel as they watch an activity, PRE-DL learners cannot read and watch an activity at the same time. They will, therefore, miss the input as they watch the activity and vice versa. The implication of this is that, a prelingually deaf learner receives less language input when watching an activity while simultaneously communicating with another person through reading and writing.

Learners acquire grammar best in a rich language environment. Such environment include language use during social interaction with the other users of the target language in different language domains including mothers, play, conversations, storytelling, language games, singing and dancing, visits and errands, social functions, language use during household chores, exposure to children's books and magazines, electronic media and social media (Brown,2000; Readence, Moore & Rickelman, 2004). Due to communication barrier prelingually deaf children of hearing parents have limited interaction with their parents, siblings, peers and caregivers in these domains (Heinneman-Gosschalk, 1999; Wilbur, 2000; Ryberg, Gellerstedt & Dannermark, 2009).

From these discussions, it can be seen that prelingually deaf learners acquiring English grammar through the use written English have limited input of the language compared to their hearing peers. English grammar achievement levels of hearing learners cannot, therefore, reliably be used to determine their achievement level.

ii) Exposure to Language During the Critical Language Acquisition Period

Although learners can acquire language any time during a life time, the Critical Language Acquisition Period (CLAP) is 0-3 years (Emmorey, 2001; Mayberry, 2002; Mayberry and Lock, 2003). During this period learners acquire the grammar of a target language at the same rate and to the same level of mastery as native users. Learners exposed to language for the first time after this period experience some delay in their language development. They also start acquiring the target language with limited early childhood knowledge of the world which children acquire between 0-3 years of age through interaction with parents, siblings, peers, caretakers and other members of the family using L1 (Emmorey, 2002; Paul, 2007; Paul & Courtenay, 2012;). Studies have shown that prelingually deaf learners especially those of hearing parents are not exposed to sign language or any other language as (L1) as soon as deafness is diagnosed. The findings showed that there is a period of delay between diagnosis and the beginning of language intervention as the parents are guarded on deafness and trained in sign language (Qui and Mirchell, 2012; Gallaudet Research Institute, 2001).

There are, therefore, two main categories of prelingually deaf learners: those who are exposed to the language during CLAP and those who are not exposed to language during CLAP (Miller, 2000; 2010b). The current study set out to assess the English grammar functioning level of prelingually deaf learners who started acquiring the language without exposure to language during CLAP.

iii) Inter-dependence of First Language and Second Language

Cummins (1991, 2006) posits that mastery of first language (L1) enhances the acquisition of second language (L2). According to the hypothesis, the underlying universal properties of language mastered during L1 acquisition are usable during L2 acquisition through linguistic transfer. Prelingually deaf learners in Kenya are expected to acquire KSL as L1 and English as

L2 (KIE, 2004a). However, the learners join school at the age of 3-6years without KSL or any other language as L1 (KSDC, 2006). This means that they start learning English without mastery of L1. KSDC (ibid) attributes this development to lack of early language intervention aimed at training the parents, siblings, peers, caregivers and other members of the nuclear family in KSL. Children acquire grammar best in a rich language environment. Such environments include language use during social interaction with the users of the target language in different language domains.

The domains include language use during motherese, play, conversations, language use during household chores, storytelling, exposure to children's literature, family visits and errands, singing and dancing, language games, access to the electronic and social media (Brown, 2000; Readence, Moore and Rickelman, 2004; Weizerman and Snow, 2001). Due to communication barrier between them and their parents, siblings, peers, caregivers and other members of the family. PRE-LD children receive limited or no language input in these domains except even with suitable auditory intervention.

Grammar functioning levels relating to prelingually deaf learners, who had acquired English as L2 with mastery of Sign language as L1 or those who acquired the language as L1 as soon as deafness was diagnosed, cannot reliably be applied to prelingually deaf learners in Kenya. The current study set out to assess the English grammar level who started acquiring English at the age of 3-6 years without mastery of any language as L1.

iv) Phonological Knowledge

Mastery of the phonemes and the phonological structure of a spoken language is a prerequisite in the acquisition of the target language (Hulme, Snowling, Caravolas and Carroll, 2005; Koo, Crain, LaSasso and Eden, 2008; Nielsen and Leutke-Stahlman, 2002; Stern and Goswami, 2000; Trek and Malmgren, 2005; Mayberry, del Giudie and Lieberman,

2011). However, Miller (2007a, 2007b, 2010a 2010b; Miller and Clark (2011), Musselman (2000); Paul, Wang, Trezek and Luckner (2009) found that PRE-LD learners can master reading comprehension without phonological knowledge. The current study set to assess the English grammar functioning level of Class III PRE-LD learners in Kenya who had not been exposed to KSL or any other language as L1.

2.2.2 Functioning Level in English Grammar

Studies have shown that prelingually deaf learners experienced difficulties mastering the grammatical structure of spoken language. Although prelingually deaf learners can master the grammar of sign language at the same rate and to the same level of competence as their hearing peers master spoken language, they lag behind in the acquisition of spoken language grammar (Lederberg and Spencer, 2001; Marschark, O'Neil & Arendt, 2014;; Qi & Mirchell, 2012); Wilbur and Quigley,1975). Traxler (2000) analyzed the performance of 4,808 deaf and Hard-of-Hearing (HOH) learners who had taken the Stanford Achievement Test, 9th edition (Stanford 9) in the 1996 norming as published by Harcourt Educational Measurement and conducted by Gallaudet Research Institute (GRI). The students who were aged 8 to 18 years took Stanford 9 test levels Primary 1 to Advanced 2. The age at onset of deafness was 3 years or below. The students were tested in vocabulary, sentence structure and spelling.

The learners were rated using the following four performance standards: **Level 4: Advanced-** representing superior performance beyond grade-level mastery; **Level 3: Proficient:** representing academic performance indicating that the student is prepared for the next level; **Level 2: Basic:** denoting partial mastery of the knowledge and skills that are fundamental for satisfactory work. **Level 1: Below basic:** indicating less than partial mastery. These standards were determined with hearing students, not deaf students in mind. The results showed that the achievement level of deaf prelingually deaf students in grammar was at Level 1 (Below Basic)

which is equivalent to Primary Grade 1 level or below. This means that the learners had less than partial mastery of English grammar. It was found that the learners were deficient in vocabulary and lacked mastery of sentence structure. However, their functioning level in spelling was higher at Level 2 which means that they had more than minimum competency in spelling. Powers (2002) also found the functioning level of Elementary and High school prelingually deaf learners in English grammar at Elementary Grade I level or below. These findings were supported by other studies which also showed that prelingually deaf learners lacked mastery of written language grammar at Elementary and High school levels (Berent, 2001; Lederberg and Spenser, 2001; Miller,2000; William, 2012).

These findings related to functioning levels in grammar of prelingually deaf learners who had been exposed to English during the critical language acquisition period (CLAP) of 0–3 years of age and who had also acquired the language in an environment where it was the home and majority language. However, prelingually deaf learners in Kenya start acquiring English at the age of 3-6 years or later without any prior exposure to language during CLAP. They also acquire the language in an environment where it is not a home or majority language. The results of the studies cannot, therefore, reliably be used to determine the English grammar achievement levels of Class III prelingually deaf learners in Kenya English to facilitate teaching at their functioning level.

Studies in Africa including Kenya, focusing on functioning levels of prelingually deaf learners in English grammar are limited. However, available research findings indicate that prelingually deaf learners lack the necessary skills in English grammar. In a study of mastery of English by learners with hearing impairment in a conventional Secondary school in Lagos State in Nigeria, Ikonta and Maduekwe (2005) found that the learners lacked mastery of vocabulary language structure. In another study of onset of hearing loss, gender and

self-concept as determinants of academic achievement in English language of learners with hearing impairment in Oyo State in Nigeria, Ademokoya (2007) also found that learners with hearing impairment were deficient in English vocabulary and sentence patterns. In Kenya, in a study of the English achievement of Class I-IV learners with hearing impairment, MOE (1987) found that the learners lacked mastery of the expected vocabulary and sentence structure at every grade level from Class I-IV. It was found that the learners were unable to construct simple grammatically correct sentences by the end of Class IV. However, the study did not show the functioning level of Class III prelingually deaf learners in English grammar. In a study of challenges facing Class VII learners with hearing impairment in Nyanza Province, Kenya in composition writing, Ogada (2012) found that the learners lacked mastery of the necessary vocabulary and language structure to be able to write a simple composition in English.

The study, however, was related to Class VII learners with hearing impairment and did not specifically focus on Class III prelingually deaf learners. The results also did not show the learners' functioning level in grammar. From the literature reviewed, it is clear that information that can be used to teach Class III prelingually deaf learners in Kenya English grammar at their functioning level is currently lacking and there is need for a study that can fill this gap to facilitate suitable intervention.

2.3 Assessment of Class III Prelingually Deaf Learners' Functioning Level in Reading Comprehension

2.3.1 Factors Influencing Functioning Level in Reading Comprehension

UNESCO (2010, 2014) calls for a global push for quality education that not only ensures that all children are in school but are actually acquiring the expected foundation skills in reading

and writing irrespective of their circumstances. All learners should, therefore, be assessed at every stage of the curriculum to identify and offer support to those at risk of failing to attain the expected functioning levels. Country Progress Reports to UNESCO indicate that of the world's 650 million Primary School age children, 130 million (20%) stay in school up to four years without acquiring basic foundation skills in reading and writing.

Functioning levels, however, vary from country to country. In Western Europe, South East Asia and North America, 96-100% of the learners can read and write by Grade IV. For example, the rate is 100% in Netherlands and Singapore. In Latin America and the Caribbean, the rate is 95% in Argentina, Chile, Cuba and Uruguay; and 80% in Dominican Republic, Guatemala, Honduras, Nicaragua and Paraguay.

In Sub-Saharan Africa, the rates are highest in Swaziland at 92%, 88% in Tanzania, 87% in Rwanda, 85% in Mauritius, 82% in Seychelles, and 80% in Botswana. The rates are lowest in Benin at 13%, 12% in Chad, 10% in Madagascar and 8% in Niger. In East Africa the rates are lowest in Kenya at 70%. However, these rates do not reflect the learners' actual functioning levels since most of them are based on estimates from national census and household surveys where respondents are asked to declare whether they or members of their households can read and write as opposed to being subjected to language tests. Some countries also assume that learners who have completed a certain level of education are literate. The reports also do not indicate the skills the learners may be lacking in the target languages. Hence there is need to assess learners at every grade level to identify and offer support to those at risk of failing to attain the expected functioning levels (Unesco, 2014; 2013; 2012).

Assessment methods that learners' functioning levels and the skills that they lack in language have been used successfully to improve language teaching in several countries including

Armenia, Brazil, India, Namibia and Zambia (Learning Metrics Taskforce, 2012; Migard and Mingat, 2012; Unesco, 2006, 2010, 2014a, 2014b). Unesco (2014b) has observed that while many countries have made significant gains in enhancing access to education, few countries have in place measures aimed at ensuring that all children are not only in school but are acquiring the necessary language skills at every grade level as per set curriculum outcomes. The following have been advanced as the key factors influencing prelingually deaf learners' mastery of reading comprehension: metacognitive knowledge, prior knowledge of the world, phonological knowledge and structural knowledge.

(i) Metacognitive Knowledge

Reading skills include extensive and intensive skills. Extensive reading skills include skimming which is reading rapidly for gist, scanning which involves focusing and searching for specific information within a text; and reading for enjoyment and pleasure. Deaf learners in Kenya are expected to read for information, enjoyment and pleasure by the end of Class III (KIE, 2004).

Intensive reading skills include reading for literal meaning, inferential meaning, relationship of thought as well as recognition, metacognitive, organizational, evaluation and appreciation skills (Chi,2000; Dyer, MacSweeney, Szezerbinski and Campbell, 2003; Gallaudet Research Institute, 2001; Musselman 2000). Literal comprehension skills relate to the ability to read and understand information, ideas, feelings and experiences explicitly stated in the text. Inferential comprehension skills refer to the use of content stated in the text, own intuition, experience and general knowledge of the world around us to get implied meaning.

Recognition skills relate to the understanding of how the content as organized and presented within the text including the sequence of events, main arguments, classification and analysis

to make conclusions. Evaluation relates to comparison of content stated in the text with references made outside the text to make value judgment, while appreciation is the recognition and expression of own feelings as influenced by the content, authors standpoint and attitude (Paul, 2003). Studies have shown that deaf learners experience difficulties comprehending curriculum content presented in written language due to lack of intensive reading skills (Pagliaro and Ansell, 2002 Pagliaro and Lang, 2007; Sainsbury and Schagen, 2004).

Learners also require metacognitive knowledge in order to read and understand texts. Metacognitive knowledge which is the awareness of the cognitive process learners' can use as copying mechanisms enables them plan, strategize, control, monitor and evaluate own reading comprehension as a skilled reader. The reader is then able to identify gaps during reading and determine whether the gaps are critical to the overall understanding of the text. Learners who have the necessary metacognitive knowledge can read independently with little or no support. (Al – Hilawani, 2003).

Deaf learners especially those taught reading by hearing teachers lack the necessary metacognitive skills to be able to read independently (Kelly, 1995; Kyle and Harris, 2010b; Al-Hilawani, 2003). Such learners mainly rely on their teachers for the interpretation of a text. Hennenam–Gosschalk (1999) attributed these deficits to teachers who use high control mechanisms resulting in limited interaction between the teacher, the learner and the text. In contrast teachers who are deaf tend to use low control mechanisms which give learners who are deaf a wider latitude for engagement enabling the learners to acquire the necessary metacognitive knowledge and other comprehension skills (Schirmer and McGoygh, 2005; Schirmer, 2003). The current study set out to assess the reading comprehension level of PRE-LD learners irrespective of their mastery of metacognitive knowledge.

(ii) Prior Knowledge of the World

Reading comprehension is the interpretation and understanding of information presented in written form. It entails mastery of the target language and background knowledge of the content being conveyed which depends on schema (National Reading Panel, 2000; Paraut and Williams, 2010). A learner with a well-developed schema in a given knowledge area can search and select information that enables them to make inferences and predictions to get meaning of content expressly stated in a text or by using knowledge outside the text. Schema also enables the reader to organize content in text by integrating new knowledge into known information (Jackson and Smith, 1997; Mayberry, 2002; Miller, 2010b; Pressley, Wood, Woloshyn, Martin, King and Menkey, 1992; Spires and Donley, 1998).

Knowledge about the world around us including the people and their activities, social values, events and culture which are acquired through social interaction form language content. Due to communication barriers, prelingually deaf children have limited or no opportunity to acquire knowledge of the world around us through interaction with their parents, siblings, peers, caretakers and the people in their immediate environment. They, therefore, approach reading comprehension with limited knowledge of the world around us compared to hearing peers. Limited prior knowledge of the topic being read is a principal contributor to PRE-LD learners' low functioning levels in reading comprehension (Marschark and Knoors, 2012).

Suitable measures should, therefore, be put in place to ensure that prelingually deaf learners have the necessary background knowledge relating to a given text before reading a text for comprehension. Prelingually deaf learners in Kenya join school at the age of 3-6 years or even later without mastery of any language as L1. This means that they had limited or no opportunity to acquire knowledge of the word around us through interaction with parents, siblings, peers, caregivers and others in the family due language deficit. They, therefore,

approach reading comprehension with little knowledge of the world around them. The current study set out to assess the reading comprehension functioning level of PRE-LD learners who had limited or no opportunity to acquire knowledge of the world around them until they started acquiring language at the age of 3-6 years of age.

v) **Phonological Knowledge Deficit**

Phonological knowledge is considered a principal factor in learning how to read (Hanson & Fowler, 1987; Izzo, 2002; Hulme, Snowling, Caravolas & Carroll, 2005; Sasso and Eden, 2008). Limited or lack of phonological knowledge has been advanced as one of the explanations of reading failure among prelingually deaf learners. Such knowledge includes mastery of the phoneme inventory of the target language, sequencing of letters, phonemes and graphemes, phoneme-grapheme and grapheme-morpheme representations. PRE-LD readers possess phonological skills that are considerably below those of their hearing peers (Harris & Moreno, 2004; Izzo, 2002; Dyer, MacSweeney, Szezerbinski and Campbell, 2003; Nielsen and Leutke-Stahlman, 2002; Paul, Wang, Trezek and Luckner, 2009; Miller, 2010a). It is also supported by evidence suggesting that better deaf readers rely on a phonological memory code strategy for the temporary retention of written stimuli such as letters and words (Conrad, 1979; Hanson, 1982; Hanson, Lieberman and Shankweiler, 1984; Hanson and Lichtenstein, 1990; Krakow and Hanson, 1985; Harris and Moreno, 2004).

Based on the consistency with which a phonological form of a word can be derived from phoneme-grapheme representation conversion processes in a particular orthography, orthographies are allocated along a **shallow-deep** continuum (Frost, 1998). In orthographies considered **shallow** such as German, this consistency is high given that phonemes are represented by the same grapheme and vice versa.

On the other hand, orthographies considered **deep** such as English, the consistency is low

since the phoneme-morpheme representation is irregular so that a phoneme can be represented by one or more different graphemes. Based on the **shallow-deep orthographic hypothesis**, shallow orthographies are expected to facilitate the processing of written words by learners with underdeveloped phonological skills such as prelingually deaf learners because of the one-to-one phoneme-grapheme correspondence (; Mayberry et al., 2011; Miller, 2006a, 2006b; Miller & Clark, 2011).

Since spoken languages especially phonologically based written languages such as English are closely related to their written forms in terms of the phoneme-grapheme and morpheme-grapheme representations, prelingually deaf learners with underdeveloped phonological skills have deficits in reading comprehension (Mayberry, 2002; Emmorey, 2001). Recent research results while acknowledging the contribution of phonological knowledge and processing in the acquisition of reading by prelingually deaf learners seems to question its adequacy in explaining the learners' failure to comprehend written text.

Miller (2006a) studied 26 prelingually deaf and 35 hearing Hebrew readers on their ability to recognize Hebrew real words and pseudo-homophones of the same words. The learners were drawn from elementary school Grades III and IV and had normal intelligence with no additional disability according to their teachers. Two-thirds of the prelingually deaf learners were from hearing parents while the remaining one third were from deaf parents. All the prelingually deaf learners used Israeli Sign Language as the preferred mode of communication. The minimum hearing loss measured at 0.5 kilohertz (kHz), 1.0 kHz and 2.0 kHz was 85 decibel (dB) hearing loss (HL) in the better ear.

A word processing experiment and a sentence comprehension test (SCT) were used. The word processing experiment served as a validation of the phonological decoding processing

deficit. The SCT served as a close examination of the structural knowledge deficit hypothesis. It also tested ability to use prior knowledge. The results showed that prelingually deaf learners who had no phonological knowledge and skills were able to categorize the Hebrew words and their pseudo-homophones. Miller (2006) concluded that the poor phonological processing skills of prelingually deaf learners notwithstanding, they can develop orthographic representations that sustain efficient processing of written words. Miller and Clerk (2011) also concluded that the reading skills of prelingually deaf learners develop independent of their phonological processing skills, suggesting that the development of phonemic awareness may not be a condition for developing their comprehension skills. In the current study, the researcher set out to assess the reading comprehension level of Class III PRE-LD learners in Kenya irrespective of their phonological knowledge of English as the target language.

vi) Structural Knowledge Deficit

Structural knowledge deficit holds that prelingually deaf learners' reading failure is due to limited or no mastery of morphological and syntactic structure of the target language. Prelingually deaf learners with structural knowledge deficit tend to ignore structural information as a source of indispensable information in interpreting meaning in a written text. At the morphological level the structures include use of plural, tense and possessive markers. At the syntactic level they include mastery of sentence structures and word order in sentences (Miller, 2000).

Studies have shown that prelingually deaf readers fail to process sentences using syntactic rules and structures of the target written language. Miller, Kargin, Guldennoglu, Rathmann, Kubus, Hauser & Spurgeon, (2012) studied 255 skilled and less skilled readers from sixth to tenth grades to test whether variance in the ability to apply structural knowledge to texts explains their deficits in reading comprehension. The learners were sampled from four

orthographic backgrounds in three countries: Hebrew and Arabic in Israel, English in the United States and German in Germany. The studies examined the learners' understanding of semantically plausible (SP), semantically neutral and semantically implausible (SI). Findings showed that over 50% the learners manifested good, often hearing-comparable understanding of sentences that convey an SP meaning (e.g. "The woman who watched the baby was reading"). In contrast, their comprehension dropped to chance level or even below when the meaning of the sentence is semantically neutral (e.g. "The woman who watched the girl was smiling") or the meaning is SI (e.g. "The woman who watched the girl was crying"). The studies revealed that SP sentences are readily understood since their meaning can be deduced without reference to sentence structure by mapping their content words against one's prior knowledge. On the other hand, sole reliance on content words and prior knowledge to get meaning of SI sentences leads to misinterpretations since it is not backed up or even contradicts the reader's knowledge of the world or real-life experiences.

These findings are supported by studies which also showed that prelingually deaf learners lack mastery of sentence structures to sustain reading comprehension (Miller, 2000, Montreal & Hernandez; Wauters, 2006; Harris and Moremo, 2006; Kyle and Harris, 2006, 2010b). However, the study related to PRE-LD learners who had been exposed to language during CLAP. The current study was intended to assess mastery of reading comprehension by PRE-LD learners who had no exposure to language during CLAP.

vii) Vocabulary Deficit

Studies have shown that PRE-LD learners lack mastery of vocabulary to sustain reading comprehension. Secondary School Form IV learners in Kenya are deficient in English vocabulary to be able to read and understand at passage level (Maina, 2009). The finding is consistent with findings by Chi (2000), Kargin, Guldenoglu, Miller, Hauser, Rathmann,

Kubus and Supergon (2012), Miller (2004, 2005), Parault and William (2010), Weizerman (2001) and William (2012) who also found that PRE-LD learners are deficient in written language vocabulary. However, the studies did not show types of vocabulary that the learners lacked at given grade levels. The current study was intended to determine the specific grammatical categories PRE-LD learners lacked by the end of Class III.

2.3.2 Functioning Level in Reading Comprehension

Studies have shown that the reading comprehension functioning level of prelingually deaf learners is below the expected curriculum outcomes. Functioning levels, however, vary from country to country and program to program. In a study of 4,808 deaf and Hard of Hearing 9 to 17 year old learners drawn from Elementary and High schools across all the states in USA, Traxler (2000) found the mean reading level at 4th grade level or below which is equivalent to the reading age of a 9 old hearing native speaker of English. The reading comprehension level of Elementary and High school PRE-LD learners in Britain is also at Grade IV level or below (Powers, 2002).

In a similar study, Montreal & Hernandez (2005) examined the reading levels of Spanish deaf students from Canary Island, Spain. The sample consisted of 93 with sensor neural hearing loss without any other handicap. The learners were drawn from 34 Primary and Secondary schools. The age range was from 9 years, 5 months to 20 years, 4 months. A total of 84 learners (92.5%) had hearing parents; the remaining 7 learners (5%) had one or two deaf parents. A total of 88.1% of the learners were users of spoken Spanish at home, 3 used bimodal communication and 8 used Spanish Sign Language (SSS). In school, spoken Spanish had been used by 37.6% (n=35), bimodal communication by 24.7% (n=23), SSS by 14% (n=13) and 1.1% (n=1). A total of 59.1% of the learners had more than one year of early intervention during the critical language acquisition period from birth to 3 years of age and 92.5% of the

learners used some form of hearing aids. They were assessed using sentence and text comprehension sub-tests from the Evaluation of Reading Processes of Primary Education Students (PROLEC) standardized with Spanish hearing students aged 6 to 11 years old. The difficulty level of the sentence comprehension task was similar to those usually done by students in class.

The objective of the study was to find out whether the students could get meaning of simple sentences for which no special memory resources were required. In sentence comprehension the results showed that the mean of the whole deaf group (N=93) was 7.99% out of a possible 12 which indicated that the students gave correct answers to 66, 6% of the questions. This mean was lower than the mean of a 7-year old which is $M= 10.1$ for the first year of Primary education ($SD=1.1$).

The objective of the text comprehension task was to determine whether the students could extract meaning of the text and integrate it with previous knowledge. The comprehension questions tested literal and inferential meanings. The results showed that the mean score for the students (N=93) was 6.99 out of a possible 16 which means that the learners answered correctly 43.7% of the questions. This mean is lower than standardized mean obtained by 7-year old hearing students which according to PROBLEC was $M=8.8$ for first year of primary education ($SD=4.0$). The results for both sentence and text reading comprehension at the end of primary school education (mean age 13 years) was similar to or lower than the reading levels of hearing students at the onset of primary school education (mean age 7 years). In contrast, the Secondary school students (mean age 14 years and 8 months) obtained the same mean score as first year hearing students. The mean percentage of mistakes made by deaf students was 56.3%, while for the hearing students it was 29.0%. The study showed that the reading level of Elementary and High school PRE-LD learners was at Grade I level or

below.

Wauters, Van Bon and Tellings (2006) examined the reading comprehension of 464 learners in the Netherlands aged 6 years 7 months to 20 years one month with hearing losses of 80 decibels or above to establish their reading levels. The learners' mean instructional age which refers to the number of years of formal instruction, was seven years starting from first grade. A total of 61% of the learners used Signed Supported Dutch (SSD), 14% used Sign Language of the Netherlands (SLN) and the remaining 25% used both SSD and SLN 96.1% were deaf children of hearing parents and 2.9% were those from deaf parents. Home language for children of hearing parents from schools for the deaf was Dutch or SSD while it was SLN for deaf children of deaf parents. Data was collected using the reading comprehension tests commonly used to evaluate hearing elementary School children in the Netherlands (Begrijpend; Aarnoutse, 1996). Each grade had a different test consisting of 10 reading texts and a total of 25 to 30 multiple-choice questions with regard to the texts. No time limit was set for completion of these tests. The judgment of individual teachers was used to determine the appropriate test for each learner. The results showed that the reading comprehension level of Elementary School PRE-LD learners in The Netherlands was at Grade I level or below.

However, the findings by Montreal and Hernandez (2005), Traxler (2000), Powers (20020), Wauters, van Bon and Tellings (2006) related to PRE-LD learners who had been exposed to language during CLAP and who had acquired the target language in an environment where it was the home language and majority language. The current study set out to assess the reading comprehension functioning level of PRE-LD learners who were not exposed language during CLAP and who had little or no opportunity to acquire prior knowledge of the world until they began to learn language at the age of 3-6 years or later. Montreal and Hernandez (2005), Traxler (2000), Powers (20020, Wauters, van Bon and Tellings (2006) used norm-referenced

assessment to determine the learners functioning level in reading comprehension. However, in the current study criterion-referenced assessment was used. The use of criterion-referenced assessment enabled the researcher to determine the learners' functioning level in reading comprehension based on the expected curriculum outcomes as specified in Class I-III English curriculum.

Studies in Africa have also shown that deaf learners lack mastery of reading comprehension skills. Primary and Secondary school PRE-LD learners in Nigeria lack mastery of the expected vocabulary and sentence structure to sustain comprehension at text level (Adamakoya, 2007; Ikonta & Madduekwe,2005). Similarly, Primary and Secondary school PRE-LD learners in Kenya are deficient in vocabulary and sentence structure to be able to read for comprehension at sentence level (Makumi, 1995, Maina, 2009). However, the findings by Adamakoya (2007), Ikonta and Madduekwe (2005), Makumi (1995) and Maina (2009) did not show the learners functioning levels in reading comprehension.

From the review of related literature, information that can be used to teach Class III PRE-LD learners in Kenya reading comprehension at their functioning level is, therefore, currently lacking and there is need to fill this gap to facilitate suitable intervention.

2.4 Assessment of Class III Prelingually Deaf Learners' Functioning Level in Expressive Written English

Related literature was reviewed as follows: factors influencing PRE-LD learners' functioning level in expressive written language

2.4.1 Factors Influencing Functioning Level in Expressive Written Language

The following factors were reviewed: Vocabulary deficit, structural deficit and prior knowledge of the world around us.

i) Vocabulary Deficit

In a study of challenges of writing English composition among ClassVII learners with Hearing Impairment in Nyanza Province in Kenya, Ogada (2012) found that the learners lacked the expected vocabulary to be able to write a composition. The finding concurred with Anita, Jones, Reed & Kreimeyer (2007), Ikonta & Madduekwe (2005), Lederberg, Schick and Spencer (2012) who also found that PRE-LD learners were deficient in vocabulary to be able to express themselves in written language.

ii) Structural Deficit

Mastery of grammar is a prerequisite to acquisition of expressive written language (Chomsky and Lasnik, 1993). Studies have shown that lack of mastery of sentence structure is a principal contributing factor to PRE-LD learners low functioning levels in expressive written English (Ogada, 2012; Lerdergerd, Schick and Spencer, 2012)

iii) Prior Knowledge

Prior knowledge of the world around us which form language content is a prerequisite to mastery of expressive written language (Jacob, Paul and Smith, 1997). Studies have shown that lack of prior knowledge is a significant contributor to prelingually deaf learners' low functioning level with expressive written English (Lerdergerd, Schick and Spencer, 2012).

2.4.2 Functioning Level in Expressive Written Language

Traxler (2000) studied 4,808 deaf and Hard of Hearing (HOH) learners in a national norming and performance standards for deaf and HOH students in USA. The age range was 8 to 18 years. The learners sat English language tests for Primary 1 to Advance 2 which were given according to appropriate grade levels as judged by their teachers; 28% of the learners had less than severe hearing loss, 21% severe, 51% profound, 8% had additional physical handicap

and 24% cognitive disabilities. The age at the onset of deafness of 96% of the learners was at birth or before 3 years of age. They were prelingually deaf learners of hearing parents who knew ASL. Only 4% were deaf learners from deaf parents. The sample was drawn to be representative of the country and program types. 23% of the learners were from Special schools while the remaining 77% were from local public mainstream schools with full time or part time special education classes. English was the school language in the mainstream schools while in special it was ASL and English. English was the home language except for children of deaf and minority groups. The learners had been introduced to English or ASL before 3 years of age.

The performance standard was determined at the following four levels: Level 4: Advance-representing 'superior performance' beyond grade-level mastery; Level 3: Proficient-representing solid academic performance indicating that the student is prepared for the next grade. Level 2: Basic - denoting 'partial mastery' of the knowledge and skills that is fundamental for satisfactory work. Level 1: Below Basic, indicating 'less than partial mastery'. At this level the learner's functioning level in literacy and numeracy is at Elementary School Grade I level or below (Harcourt Educational Measurement, 1997). The results showed that the learners' English language achievement level was at 'Below Basic'. This means that the learners' achievement level in expressive English was at Primary 1 level or below. The results showed that the learners lacked the necessary knowledge and skills to be able to express themselves in English.

The results were confirmed by other findings which also showed that Elementary and High school prelingually deaf learners lacked mastery of vocabulary and language structure to be able to express themselves in written language (Antia, Jones, Reed and Kreimeyer, 2009; Marschalk, O'Neill and Arendt, 2014; Qui and Mitchell, 2012). Results related to prelingually

deaf learners who had acquired English in an environment where it was a home and majority language. The results cannot, therefore, reliably be applied to prelingually deaf learners..

In Nigeria, Irokoba (2006) and Inkota and Maduekwe (2005) found that learners hearing impairment lacked vocabulary and functional language skills to be able to express themselves in English. The results, however, related to Secondary school learners with hearing impairment and not to Class III prelingually deaf learners.

In a study of mastery of English by prelingually deaf learners in Kenya who had been taught English from Class I-III, MOE (1987) found that the learners lacked the necessary vocabulary and language structure to be able construct a grammatically correct simple English sentence. However, the study did not show the learners' functioning level in expressive written English. In another study, Ogada (2012) studied the challenges of writing English composition among Class VII learners with hearing impairment in Nyanza Province, Kenya. The sample consisted of 64 Class VII learners with hearing impairment and 4 teachers. Descriptive survey design was used in the study. The study population consisted of 71 learners with hearing impairment and 5 teachers. Saturated sampling technique was used to select 64 learners and 4 teachers for the study. Quantitative data was collected using learner observation schedule, document analysis guides, learner questionnaire and teacher questionnaire. It was analyzed using frequencies, percentages and means. Qualitative data was categorized into emerging themes analyzed and results reported in prose form.

The results showed that the learners lacked the necessary vocabulary and mastery of sentence construction at Class VII level. The results did not show the learners' functioning level and the skills they lack in expressive written English to facilitate teaching at suitable level. Information that can be used to inform policy and to teach the Class III prelingually deaf

learners in Kenya expressive written English at their functioning level is, therefore, currently lacking. There is, therefore, need for a study that can fill this information gap to facilitate suitable intervention.

2.5 Relationship between Class III Prelingually Deaf Learners' Performance in Grammar and Reading Comprehension

Mastery of grammar is a prerequisite to the acquisition of reading comprehension (Chi, 2000). Miller (2000) found that PRE-LD learners who lacked Spanish syntactic structure were also deficient in reading comprehension. The findings were supported by Wauters, van Bon and Tellings (2005) and Montreal and Henandez (2000). The studies, however, did not show the relationship between the learners' performance in grammar and reading comprehension.

Learners need sufficient command of language grammar to be able to comprehend a text. In a study of syntactic and semantic processing in prelingually deaf Hebrew readers aged 7-17 years, Miller (2000) found that those with the necessary vocabulary and language structure understood texts better than those who were deficient in these two areas. It was concluded that mastery vocabulary and syntactic structure of the target language are prerequisites in reading comprehension. This finding concurs with other findings which have also shown that mastery of vocabulary language structure are principal contributing factors in mastery of reading comprehension of deaf learners (Wauters, Van Bon and Tellins,2006; Wauters, Van Bon, Tellings and Van Leeuwe,2006; Monteval and Hernandez, 2005; Miller, 2010).

2.6 Relationship between Class Three Prelingually Deaf Learners' Performance in Grammar and Expressive Written English

.Mastery of grammar is a prerequisite to the acquisition of expressive written language (2012). Ogada (2012) found that Class VII PRE-LD learners in Nyanza Province, Kenya, were unable to write a guided composition due to deficiency in vocabulary and sentence structure. However, the study did not show the relationship between the learners' performance in grammar and reading comprehension.

2.7 Language Assessment

There are different types of language assessment tests. The tests include school readiness, aptitude, proficiency and achievement tests. In this section achievement tests are discussed in relation to the English functioning level of Class III prelingually deaf learners in Kenya. Language functioning level tests measure learning outcomes against the expected curriculum outcomes or in comparison with peers of the same age or grade. They can also be used to identify language skills and sub-skills a learner has mastered. Results of such tests can be used to inform policy and to teach learners at their functioning level with the aim of improving performance (Al-Hilawani, 2003; Bachman, 1990). Two main types of language functioning level tests are discussed: Norm-referenced Language Tests and Criterion-referenced Language Tests.

2.7.1 Norm-referenced Tests

Norm-referenced Tests measure language functioning levels of learners against that of a referenced group of known demographic characteristic such as age, sex, grade or geographical location. The reference group also known as the normative or standardization sample provides norms on which the comparison is made. Thus the derived scores give

relative meaning to the raw scores. Derived scores used in educational settings include age equivalents, grade equivalents, quartiles, deciles and percentiles (Traxler, 2000).

Age equivalent are presented in years and months. For example, if during the standardization of a test the mean (or medium in some tests) of the number of correct responses was 80% for all children aged 10 years six months then any child who takes the same test and scores 80% will have age equivalent of 10.6. On the other hand, grade equivalents are presented in years and tenths of a year. For example, in USA, the academic year is divided into 10 parts. The first nine months of the year represents the first nine parts and the last 3 months, popularly known as the summer months in USA and Europe, represent the tenth part. Both age and grade equivalents are, therefore developmental scores based on the average performance of the standardization sample. They can be used to identify learners in a given demographic group who are not performing academically at the expected age or grade levels and who, therefore, require support (Traxler, 2000).

When using percentiles, scores from a standardization sample, scores are divided into 100 equal parts. For example, percentile 23 (23rd percentile) is the point at which 23% of the scores fall below. In the case of quartiles the distribution from the standardization is divided into four equal parts. Quartile one is the point at which 25% of the scores fall below. Deciles involve the division of the scores from the standardization into 10 equal parts. Decile 8, for example, is the point at which 80% of the scores fall below (Borg, 1981).

Standardized norm-referenced tests are widely used in USA (Traxler, 2000; Gallaudet Research Institute, 1996). However, the tests have received criticisms from various researchers and linguists because their use is limited to specific geographical areas and socio-cultural groups due to variations in language use and culture. Thus one

norm-referenced test meant for one geographical area may not be suitable for use in another area and must first be adapted. They are also limited in use because they do not specify individual learner's strengths and needs in given skills. Norm-referenced language tests were, therefore found unsuitable for in the current study.

2.7.2 Criterion-referenced Tests

A Criterion-referenced Tests (CRLTs) measure a learner's performance in a language against the expected language outcomes as specified in the syllabus. (Borg, 1981). In the current study, a CRLT consisting of nine sub-tests was used to measure the performance of Class III prelingually deaf learners in grammar, reading comprehension and expressive written English at Class I, II and III levels against the expected curriculum outcomes (KIE, 2004a). Each sub-test covered at least 80% of the curriculum content. The proportion of the test items allocated to each skill was also proportionate to the coverage of the skill in the curriculum.

A learner is considered to have mastery of the expected language skills at a given grade level when the criterion pass mark is obtained. The criterion pass mark which is set by the curriculum developer depends on the expected degree of the mastery of the language skills (Borg, 1981). In Kenya, various levels of criterion pass mark have been used to assess learners at various levels of education. Uwezo Kenya used a criterion pass mark of 90% to find out whether Primary school learners in Kenya are acquiring the expected English skills as specified in curriculum (Uwezo Kenya, 2011).

During its curriculum evaluation exercises, Kenya Institute of Curriculum Development (KICD) has variously used criterion pass marks of 80% and 60% to establish the English functioning levels of Primary School learners. Currently the institute uses a criterion pass mark of 50% to determine the functioning levels at Primary School level (KIE, 2006). A

baseline survey during the current study showed that the criterion pass mark in District Evaluation tests is also 50% and learners are considered to have attained a given grade level when at least a half of class get the criterion pass mark (DEO Bungoma, 2013; DEO Homabay, 2013; DEO Kakamega, 2013; DEO Kilifi, 2013; DEO Kericho, 2013; DEO Kerugoya, 2013; DEO Kisumu, 2013; DEO Kwale, 2012; DEO Machakos, 2012; DEO Mombasa, 2012; DEO Migori, 2012; DEO Muranga, 2013; DEO Nakuru, 2013; DEO Nandi, 2013; DEO Siaya, 2013). The criterion pass mark of 50% as used in District Evaluation Tests was adapted and used in this study.

CRLTs have received criticisms as to their validity and reliability especially when developed by teachers who are not conversant with test construction. It is, therefore, necessary that the validity and reliability of the tests are established before administration (Cresswel, 2009 Borg, 1981). The sub-tests used in this study were verified for content validity and test item validity. They were also tested for reliability.

CHAPTER THREE

METHODOLOGY

3.1 Introduction

The methodology is presented as follows: research design, study area, study population, sample size and sampling technique, instruments for data collection, validity and reliability of the instruments, administration of research instruments, data collection procedure, ethical considerations and methods of data analysis.

3.2 Research Design

Mixed research designs were used: Qualitative, evaluative and relationship research designs. Qualitative research involves collection of data in form of texts, photographs, video recordings and materials which are presented and analyzed using designs, techniques and measures that do not produce discrete numerical data. Qualitative data allows the researcher to go beyond the statistical results which are usually analyzed and interpreted in quantitative form (Mugenda and Mugenda, 2004). In the current study, qualitative research design enabled the researcher to identify Class III PRE-LD learners' strengths and needs in grammar, reading comprehension and expressive written English using Document Analysis Schedules (Appendices 1 – 19).

Evaluation research design entails collecting and quantitatively analyzing data to determine whether intended results are being realized as per stated objectives. In this study, Module III Evaluation design was used. Module III relates to evaluation of performance of users or learners as per the expected outcomes. Module I relates to the evaluation of the quality of a product while Module II relates to evaluation of the process (Mugenda and Mugenda, 2004). In the current study, the design was used in assessment of Class III PRE-LD learners'

functioning levels in grammar, reading comprehension and expressive written English. .

Relationship research design may be used to determine the degree of relationship between two or more variables and to determine the influence of one or more variables, In the current study, Pearson's (r) was used to determine the relationship between the learners' performance in grammar and reading comprehension; and between their performance in grammar and expressive written English..

3.3 Study Area

The study was conducted in the following thirteen Primary Schools for the Deaf in Kenya: Kakamega, Kapsabet, Kuja, Litein, Mumias, Nyangoma, Nyangweso and Webuye in Western Kenya; Kerugoya, Muranga and Ngala in Central Kenya; and Kibarani and Kwale in Eastern Kenya. Maseno School for the Deaf in Western Kenya, Machakos School for the Deaf in Central Kenya and Ziwani School for the Deaf in Eastern Kenya were used during the pilot study but were not included in the main study to avoid any bias.

Kenya is in East Africa situated latitude 4.5°N and 4.5°S, and longitude 34.5°E and 42°E occupying an area of 590,000 km² with a population of 38,610,097. Administratively, the country is divided into 47 counties (Appendix 37) with a school for the deaf in nearly every county.

The majority of the population lives in rural areas. About 60% of the population are youth aged 35 years and below. There are 2,247,071 learners in Pre-School; 9,445,390 in Primary School; 1,796,467 in Secondary school; 290,000 in middle level colleges and 198,119 in University (KNBS, 2010). Only about 7,020 deaf learners are in Primary School out of an estimated population of about 200,000 children with hearing impairment who are of Primary School going age (MOE, 2005; MOEST, 2003; KSDC, 2006).

The country is a multilingual society with 43 ethnic languages. English is the official language and the medium of instruction in school as from Class IV while Kiswahili is the national language. Kenyan Sign Language (KSL) is the language of the deaf community in the country. Prelingually deaf learners are expected to acquire KSL as L1 and English as L2. They are also expected to master sufficient command of English by the end of Class III to enable them use the language as a compulsory medium of instruction alongside KSL as from Class IV (KIE, 2004a, 2004b).

3.4 Study Population

The total population of all learners with hearing Impairment in Kenya which includes Prelingually deaf learners, Post-lingually deaf learners, Hard of Hearing Learners and those with additional disability is 7,545 (MOE, 2013) as reflected in Appendix 26. The total number of Learners with Hearing Impairment including Prelingually Deaf, Post-lingually deaf, Hard of Hearing learners and those with additional disability (Baseline survey). The study population consisted of 337 Class III PRE-LD learners and 65 Class III English teachers from 49 Primary Schools for the Deaf in Kenya. The 337 prelingually deaf learners were selected from a total of 785 Class III learners with hearing impairment in the 49 schools by excluding 198 postlingually deaf learners, 97 Hard of Hearing learners and 157 deaf learners with additional disability. All the learners who were the 2012 Class III cohort had been assessed and referred to the schools for placement by the Ministry of Education's Educational Assessment & Resource Centres (EARCs). A total of 34 (10%) learners were used during the pilot study.

Class III was selected for the study because it is transitional class where PRE-LD learners are expected to have mastered sufficient command of English to be able to use the language as a compulsory medium of instruction and examination as from Class IV. English was chosen for

the study because it is a compulsory medium of instruction and examination as from Class IV.

3.5 Sample Size and Sampling Technique

3.5.1 Sample Size

Fischer's formula for determining sample size for target populations of less than 10,000 (Mugenda & Mugenda, 2003) was used to determine the sample size for Class III PRE-LD learners as follows:

Formula:

$$nf = \frac{n}{1 + \frac{n}{N}}$$

Where:

nf = the desired sample size (when the population is less than 10,000)

n = 384 (table value when the population is more than 10,000)

N = the estimate of the population size

Calculation:

$$\begin{aligned}nf &= \frac{384}{1 + \frac{384}{337}} \\nf &= \frac{384}{1 + 1.139} \\nf &= \frac{384}{2.14} \\nf &= 179.4393 \\n &= 179.\end{aligned}$$

The Response rate was 178.

3.5.2 Sample and Sampling Technique

Multi-stage and saturated sampling techniques were used in the study. Multi-stage sampling technique which is a further development of the principle of cluster sampling is used when the target population is either very large or scattered over a large geographical area such as a

country. The technique involves dividing the target population into intact units such as schools and hospitals into a number of smaller non-overlapping regions. The units in each region are then randomly selected and the members in each unit are included in the sample based on the proportionate distribution of the target population and the required sample size (Kothari, 2004).

In the current study, a three stage Multi-stage Random sampling technique was used to randomly group the 337 Class III learners in Kenya into three regions as follows: Western Kenya, 218(64.7%) learners; Central Kenya, 79 (23.5%) and Coast, 40(11.8%) learners as represented by the population of Class III PRE-LD learners in each region.

Sample size for each region was then proportionately calculated using the following formula:

$$X = (Y \div P) \times S \times 100\%$$

Where:

X= required sample from the region

Y= population of PRE-LD learners in the region

P=study population

S= study sample

Calculation;

$$\begin{aligned} \text{i) Western Kenya } (218 \div 337) \times 179 \times 100\% &= 115.792285 \\ &= 116 \end{aligned}$$

$$\begin{aligned} \text{ii) Central Kenya: } (79 \div 337) \times 179 \times 100\% &= 41.961424 \\ &= 42 \end{aligned}$$

$$\begin{aligned} \text{iii) Coast: } (40 \div 337) \times 179 \times 100\% &= 21.246290 \\ &= 21 \end{aligned}$$

Sample size for each region was as follows: Western Kenya 116; Central Kenya 42 and Coast 21. The Schools for the Deaf in each region were then randomly selected and all the Class III PRE-LD learners in each selected school were included in the sample until the sample size for the region was reached.

Purposive sampling technique was used to select 16 teachers who were the Class III English teachers in the study schools. Purposive sampling technique is a non-probability sampling technique which is used to exclusively select a particular section of a study population for a study because it is the only one with the desired information (Cresswell. 2009; Kothari, 2004).

The sample consisted of 179 Class III PRE-LD learners and 16 Class III English teachers (Table 2).

Table 2: Sample Frame

Category of respondents	Total population	Sample Size
Class III PRE-LD learners	337	179
Class III English teachers	65	16

3.6 Instruments for Data Collection

Data was collected using an English Test for Class III prelingually deaf learners, an interview schedule for Class III English teachers .and document analysis schedules

3.6.1 English Test for Class III PRE-LD Learners

The test which was based on the Primary School English Curriculum (KIE, 2004) consisted of nine sub-tests which were constructed by adapting Class I, II and III District English Evaluation Tests. A criterion pass mark of 50% as used in the District tests (DEO Bungoma, 2013; DEO Kilifi, 2013; DEO Kericho, 2013; DEO Machakos, 2013; DEO Mombasa, 2013; DEO Muranga, 2013; DEO Nakuru, 2013; DEO Nandi, 2013)' The sub-tests were used to collect data relating to the learners' functioning levels in grammar, reading comprehension and expressive written English.

The following were the nine subtests:

1. Sub-test 1: Class I Level English Grammar Test
2. Sub-test 2: Class II Level English Grammar Test
3. Sub-test 3: Class III Level English Grammar Test
4. Sub-test 4: Class I Level Reading Comprehension Test
5. Sub-test 5: Class II Level Reading Comprehension Test
6. Sub-test 6: Class III Level Reading Comprehension Test
7. Sub-test 7: Class I Level Expressive Written English Test
8. Sub-test 8: Class II Level Expressive Written English Test
9. Sub-test 9: Class III Level Expressive Written English Test

i) Sub-test 1: Class I Level English Grammar Test

Class I Level English Grammar Test (Appendix 1) was used to collect data relating to the learners' mastery of Class I level English grammar as specified in Class I English syllabus. The learners' performance was measured against the expected curriculum outcomes which related to mastery of vocabulary and language structure. Vocabulary tested entailed mastery

of the following grammatical categories relating to everyday life at home and in school: indefinite articles; prepositions indicating location of objects; adverbs of time and manner; quantitative adjectival phrase; personal pronouns, singular and relative pronouns; connecting conjunctions.

The language structure tested included mastery of morphological and syntactic structures. Mastery of morphological structure involved the use of the regular plural marker ‘-s’ and the regular tense marker ‘-ed’. Mastery of syntactic structure entailed construction of simple sentences in singular and plural, construction of simple sentences containing transitive and intransitive verbs. The sub-test covered 93.6% of the syllabus content and the proportion of the test items allocated to each skill was proportionate to the coverage of the skill in syllabus.

ii) Sub-test 2: Class II Level English Grammar Test

Class II Level English Grammar Test (Appendix 2) was used to collect data relating to the learners' mastery of Class II level English grammar as specified in Class II English syllabus. Class II grammar entailed mastery of vocabulary and language structure. Vocabulary tested related to the use of the following grammatical categories relating to everyday life at home and in school: base form of adjectives, comparative and superlative adjectives; indefinite pronouns; concession and coordinating conjunctions. The language structure tested related to mastery of morphological and syntactic structures. Mastery of morphological structure involved the use of the following regular plural markers: **-s, -es, -ies, -ves**. Mastery of syntactic structures related to the use of irregular plural forms; simple present tense, present continuous tense, simple past tense, future tense, simple perfect tense, future perfect tense continuous; singular and plural of simple sentences, construction of own simple sentences; word order in simple sentences; adjectival and adverbial phrases; and question forms. The

sub-test covered 90.4% of the syllabus content and the proportion of the test items allocated to each skill was proportionate to the coverage the of skill in the syllabus.

iii) Sub-test 3: Class III Level English Grammar Test

Class III Level English Grammar Test (Appendix 3) was used to collect data relating to the learners' mastery of Class III English grammar as specified in Class III English syllabus. Class III English grammar involved mastery of vocabulary and language structure. The vocabulary tested included use of subordinating, conditional, and concession conjunctions; personal, possessive, indefinite, relative and reflective pronouns; possessive pronoun first person singular; adverbs of time, place, manner and reason; intensifiers; coordinating, connecting and concession conjunctions. The language structures tested related to mastery of the use of the following syntactic structures: the use of verb phrases; conditional, coordinating, subordinate and concession clauses; and construction of compound sentences. The sub-test covered 84.4% of the syllabus content and the proportion of the test items allocated to each skill was proportionate to the coverage of the skill in syllabus.

iv) Sub-test 4: Class I Level Reading Comprehension Test

Class I Level Reading Comprehension Test (Appendix 4) was used to collect data relating to the learners' mastery of Class I level reading comprehension skills as specified in Class I English syllabus. The skills tested were mastery of reading for comprehension at one word level, comprehension of numerals 1-99 written in words, reading comprehension names of geometrical shapes found in everyday life at home and school, reading for comprehension simple sentences relating to everyday life and reading for literal meaning a short passage relating to life at home and school. The sub-test covered 91.6% of the syllabus content and the proportion of the test items allocated to each skill was proportionate to the coverage of the skill in the syllabus.

v) Sub-test 5: Class II Level Reading Comprehension Test

Class II Level Reading Comprehension Test (Appendix 5) was used to collect data relating to the learners' mastery of Class II level reading comprehension skills as specified in Class II English syllabus. Class II reading comprehension involved mastery of reading for comprehension numerals 100 - 999 written in words, comprehension of simple sentences describing people doing different activities in everyday life. The sub-test covered 89.2% of the syllabus content and the proportion of the test items allocated to each skill was proportionate to the coverage of the skill in the syllabus.

vi) Sub-test 6: Class III Level Reading Comprehension Test

Class III Level Reading Comprehension Test (Appendix 6) was used to collect data relating to the learners' mastery of Class III level reading comprehension skills as specified in Class III English syllabus. Class III English reading comprehension involved mastery of reading for comprehension for literal meaning, implied meaning and relationship of thought of short passages of about 50-60 words relating to everyday life. The sub-test covered 87.4% of the syllabus content and the proportion of the test items allocated to each skill was proportionate to the coverage of the skill in syllabus.

vii) Sub-test 7: Class I Level Expressive Written English Test

Class I Level Expressive Written English Test (Appendix 7) was used to collect data relating to the learners' mastery of Class I level expressive English as specified in Class I English syllabus. Class III expressive written English entailed mastery of letters of the alphabet from A-Z, naming of objects found in everyday life in full sentences, writing numerals 1-99 in words, telling time to the hour and half past the hour, and describing the position of an object in own full sentence. The sub-test covered 92.0% of the syllabus content and the proportion of the test items allocated to each skill was proportionate to the coverage of the

skill in syllabus.

viii) Sub-test 8: Class II Level Expressive Written English Test

Class II Level Expressive Written English Test (Appendix 8) was used to collect data relating to the learners' mastery of Class II level expressive written English skills as specified in Class II English syllabus. Class expressive written grammar involved mastery of telling time to quarter past the hour and quarter to the hour, naming objects found at home and school using own full sentences, telling own age in a full sentence and writing in words numerals 100-999. The sub-test covered 87.4% of the syllabus content and the proportion of the test items allocated to each skill was proportionate to the coverage of the skill in syllabus.

ix) Sub-test 9: Class III Level Expressive Written English Test

Class III Level Expressive Written English Test (Appendix 9) was used to collect data relating to the learners' mastery of Class III level expressive written English as specified in Class III English syllabus. Class III expressive written English entailed writing of short guided compositions of about 56 words relating to self, school, friend and home. The skills tested included ability to write the introduction, body and conclusion of a short guided composition by filling blank spaces using own words. The sub-test covered 91.9.4% of the syllabus content and the proportion of the test items allocated to each skill was proportionate to the coverage of the skill in syllabus.

The response rate in each sub-test was 178 learners out of the 179 learners who sat the sub-tests. One of the learners did not do the tests due to sickness during data collection.

3.6.2 Interview Schedule for Class III English Teachers

The schedule (Appendix 10) was used to collect Class III PRE-LD learners' bio-data. The bio-data included the learners' age the time of joining school, class joined, language or mode

of communication known at the time of joining school, class joined upon first admission in school, age at the time of the study, languages known at the time of the study, language used as First Language (L1), language used at home, parents' knowledge of English and KSL.

3.6.3 Document Analysis Schedules

The schedules (Appendices 11-19) was used to collect data related to the learners' mastery of grammar, reading comprehension and expressive written English as reflected in their answer sheets.

3.7 Validity and Reliability of the Research Instruments

3.7.1 Validity of the Instruments

The instruments were verified for content validity and test item validity by experts from School of Education, Class III English teachers from pilot schools and one of the supervisors who is a Professor of English.

3.7.2 Reliability of the Instruments

The instruments were tested for reliability using test-retest. The reliability coefficient of the instruments was accepted at 0.70 or above and was determined using Pearson's' correlation coefficient (r) at $p < 0.05$. The correlation coefficient for Class I Grammar Test was 0.90, Class II Grammar was 0.89, Class III Grammar was 0.83, Class I Reading Comprehension Test was 0.86, Class II Reading Comprehension Test was 0.76, Class III Reading Comprehension Test was 0.93, Class I Expressive Written English Test was 0.83, Class II Expressive Written English was 0.76 and Class III Expressive Written English Test 0.88 (Appendix 20).

3.8 Administration of the Research Instruments

The sub-tests were administered by the researcher assisted by the Class III English teacher(s) in each school as invigilators. The invigilators were briefed beforehand on invigilation rules and the need to observe them. During each sub-test the learners sat at least one metre apart from one another to avoid any cheating. The answer sheets which were also the question papers were collected immediately after each test for safe custody by the researcher himself.

Class 1 Level sub-tests were done between 8.30-10.30 am, Class II Level sub-tests 11.00-1.00 pm and Class III Level sub-tests 2.00-4.00 pm in each school.. The questionnaire was given to the teachers during the first visit to the schools. They were all filled and collected back by the researcher . Content and test item verification schedules were also given out to the experts and were collected back by the researcher during the pilot study. Marking of the sub-tests was done by the research assistants who were trained on marking and using a marking scheme for each sub-test. The marked scripts were remarked by the researcher to ensure accuracy of scores.

3.9 Data Collection Procedure

The research proposal was approved by the School of Graduate Studies (SGS), Maseno University. Approval of ethical considerations was given by Maseno University Ethics Review Committee (MUERC). The researcher made preliminary visits to the 16 Primary Schools for the deaf and got authority from the Head teachers to conduct the research in their schools. During the visits, Head teachers, the Deputy Head teachers, teachers in-charge of the curriculum and Class III English teachers were briefed about the purpose and objectives of the study. Research instruments were piloted with 34 (10%) learners. The instruments were self-administered by the researcher assisted by a principal research assistant and the Class III

English teachers in the 16 schools. According to Kothari (2004), self-administration of instruments minimizes the chances of cheating during assessment.

3.10 Ethical Considerations

Permission to administer the sub-tests to Class III prelingually deaf learners in each school was given by the Headteacher of each school. The parents' consent was sought (Appendix 22) and received by the researcher before using the learners and their demographic information. Participation in the study by the learners, Class III English teachers and parents was completely voluntary and they were free to withdraw from the exercise at will. The researcher personally discussed with the Headteachers, Deputy Head teachers, teachers in-charge of the curriculum and Class III English teachers and agreed on the content of the instruments. They were assured that data collected would solely be used for the purpose of the study. The researcher also met the learners in the company of their English teachers and briefed them about the tests. They were assured that the tests were only meant to find out how much English they knew and would not be used to discriminate against them , rank or compare them with other learners in terms of performance. Raw data as contained in the learners' answer sheets and the filled questionnaires were collected and kept under lock and key by the researcher. The data was then coded, processed and stored in computer encrypted by a password known only by the researcher to ensure confidentiality and privacy. All participants and schools were assigned numeric code names that were used to mark the scripts and to analyze all subsequent data.

3.11 Methods of Data Analysis

Data was analyzed using both quantitative and qualitative analysis. Data relating to the learners functioning levels in grammar, reading comprehension and expressive written English was analyzed using a language rating scale with a criterion pass mark set at 50%. The rating scale

was used as follows: 0-24: Very Weak; 25-49%: Weak; 50% or above: Grade Functioning Level Attained. The learners were considered to be functioning at a given grade level when at least 50% (89) of them obtained the criterion pass mark.

Data relating to the learners' mastery of grammar, reading comprehension and expressive written English skills as collected using Document Analysis Schedules was qualitatively analyzed and reported according to themes and sub-themes that emerged during data analysis. In grammar the themes and sub-themes were mastery of grammatical categories, mastery of morphological structure and mastery of syntactic structure. In reading comprehension the themes and sub-themes were Comprehension at One-word Level, Comprehension at Sentence Level and Comprehension at short Passage Level including reading for literal meaning, implied meaning and relationship of thought.. In expressive written English the themes and sub-themes were mastery of Expression at One-word Level, Expression at Sentence Level and ability to write a short guided composition with focus on use of suitable vocabulary, grammatically correct English sentences, cohesive ties and text development.

Where a skill was tested with one or two test items, a learner was considered to have mastery of the skill when he or she got both test items correct. Where a skill was tested by three or more test items a learner was considered to have mastery of the skill when he or she got at least a half of the test items correct. The learners were considered to have mastery of a given when at least 50% (89) had mastery of the skill. Each skill mastered was then compared with the expected curriculum outcomes as specified in Class I, II and III English syllabi.

Data relating to the relationship between the learners' performance in grammar and reading comprehension was analyzed using Pearson's (r) where grammar was the independent variable while performance in reading comprehension was the dependent variable. The relationship

between the learners- performance in grammar and expressive written English was also analyzed using Pearson's (r) where grammar was the independent variable and expressive written English, the dependent variable. According to the Theory of Principles and Parameters (Chomsky and Lasnik, 1993), mastery of grammar is a prerequisite to the acquisition of receptive and written language.

CHAPTER FOUR

RESULTS AND DISCUSSION

4.1 Introduction

Results and discussion have been presented as follows: background information about the study sample; assessment of English grammar functioning level of Class III PRE-LD learners in Kenya; assessment of reading comprehension functioning level of Class III PRE-LD learners in Kenya; assessment of expressive written English functioning level of Class III PRE-LD learners in Kenya; relationship between the performance in English grammar and reading comprehension of Class III PRE-LD in Kenya; relationship between the performance in English grammar and expressive written English of Class III PRE-LD in Kenya.

4.2 Background Information of the Sample

All the 178 learners (100%) were Prelingually Deaf (PRE-LD) children who were either born deaf or became deaf before three years of age. The hearing loss was 90 decibels or above in the better ear measured at 500 Hertz (Hz), 1000 Hz, 2000 Hz, 4000 Hz. The learners were all in boarding Primary Schools for Learners with Hearing Impairment. The learners had been assessed and referred to the schools for placement by the Ministry of Education's Educational Assessment & Resource Centres.

The learners were using Kenyan Sign Language as the first language (L1) and English as a second language (L2) at the time of the study. All the 178 (100%) learners who were aged 9-17 years started acquiring English at the age of 3-6 years of age or later without prior exposure to sign language or any other language during the critical language acquisition period (CLAP) of 0-3 years except one (0.6%) learner who was a deaf child of deaf parents.

The learners, therefore, had little or no opportunity to acquire knowledge of the world around us before school due to this language deficit. A total of 177 (99.4%) learners were prelingually deaf children of hearing parents who did not know KSL. They were also acquiring English in an environment where it was not a home or majority language.

The sixteen teachers were Class III English teachers of English from the thirteen study schools. All the teachers were trained teachers of learners with hearing impairment. Nine of the teachers had Diploma of Special Needs Education, Bachelor of Special Needs Education, one Master of Special Needs Education and one with a three month course in Special Needs Education. Only one of the teachers was a deaf teacher.

4.3 Assessment of Class III PRE-LD Learners' Functioning Level in English Grammar

The first objective of the study was to determine the functioning level of Class III PRE-LD learners in English grammar. Data was collected using English grammar tests for Class I, II and III shown in Appendices 1, 2 and 3. Data was analyzed as follows: Functioning level in grammar; Mastery of Grammar skills.

4.3.1 Functioning Level

The learners' functioning level in grammar was determined using a language rating scale with the criterion pass mark set at 50%. The scale was used as follows: 0-24%: Very Weak; 25-49: Weak; 50% or above: Grade Functioning Level Attained (Table 3). The learners were considered to have attained a given grade level when at least 50% (89) of learners obtained the criterion pass mark.

Table 3: Class III PRE-LD Learners' Functioning Level in English Grammar (n=178)

Scores (x/100) with criterion pass mark set at 50%			
GRADE LEVEL	0-24% f (%)	25-49% f (%)	50% or above f (%)
CLASS III	177 (99.4)	1(0.6)	0 (0.0)
CLASS II	144 (80.9)	34 (19.1)	0 (0.0)
CLASS I	135 (75.8)	43 (24.2)	0 (0.0)

Key: 0-24%: Very Weak, 25-49%: Weak, 50% or above: Grade Functioning Level Attained.

From Table 4, at Class III level 177 (99.4%) learners were very weak with scores ranging from 0-24%. The remaining one (0.6%) learner scored between 25-49%. None of the learners obtained the criterion pass mark of 50%. The result meant that the learners' functioning level in English grammar was below Class III level.

At Class II level, 144(80.9%) were very weak recording 0-24 marks. The remaining 34(19.1%) scored 25-49%. None of the learners obtained the criterion pass mark. The result meant that the learners' functioning level in English grammar was below Class II level

At Class I level, 135(75.8) learners were very weak obtaining 0-24%. The remaining 43(24.2%) obtained 25-49%. None of the learners obtained the criterion pass mark. The result meant that the learners had not attained Class I level grammar. The implication was that the learners' functioning level in grammar was at Class I level which is the beginning Class in Primary School.

The finding concurred with Traxler (2000) and Powers (2002) who found that that the functioning level of the majority of Elementary School prelingually deaf learners in was at

Grade I level or below in USA and Britain respectively. However, the findings related to PRE-LD learners who had been exposed to language during CLAP and who had acquired English in an environment where it was the home and majority language. The finding of the current study showed the functioning level of Class III prelingually deaf learners who were not exposed to language during the critical language acquisition period of 0-3 years and who had acquired English in an environment where it was not a home or majority language.

4.3.2 Mastery of English Grammar Skills

To confirm whether Class III prelingually deaf learners' functioning level in English grammar was indeed at the level established using the rating scale, the learners' mastery of English grammar at Class I, II and III levels was examined using document analysis schedules shown in Appendices 10, 11 and 12, and the Class I-III English syllabi. Mastery of grammar at each grade level was analyzed as follows: mastery of grammatical categories. Mastery of morphological structure and syntactic structure.

4.3.2.1 Mastery of Grammatical Categories

Mastery of grammatical categories involved the use of articles, adjectives, adverbs, prepositions, pronouns, verbs and conjunctions.

Where a skill was tested using one or two test items, the learners were considered to have mastery of the skill when they answered the test item or both test items correctly. Where a skill was tested using three test items, a learner was considered to have mastery of a skill when at least two test items are answered correctly. The learners were considered to have the skill when at least 50% (89) learners had the skill.

i) Mastery of Articles

The learners were tested on mastery of the use of the indefinite articles '**a**' and '**an**' in simple sentences. The learners were asked to observe a picture then complete a simple sentence

requiring the use of an article. They were to use own vocabulary. Excerpts showing the learners' responses are presented in Fig. 2.

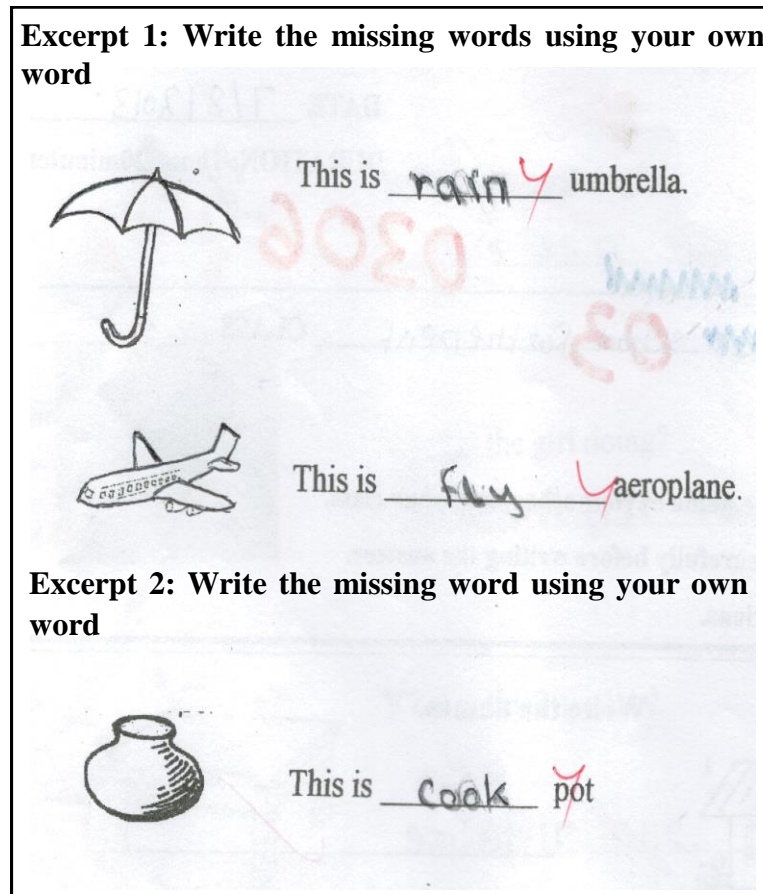


Figure 2: Excerpts Showing Mastery of Articles (n=178)

In Excerpt 1 (Fig 2), the learner used a wrong vocabulary instead of the **indefinite articles 'a'** to complete the simple sentence. Only 35 (19.7%) learners completed the sentence correctly using the article.

In Excerpt 2, the learner also used a wrong word instead of the **indefinite article 'an'** to complete the sentence. Only 23 (12.9%) learners completed the sentence correctly using the article.

From the results, the learners lacked mastery of the indefinite articles 'a' and 'an'. This means that lack of mastery of indefinite articles is a contributing factor to the learners' mastery of construction of sentences. The finding concurred with Williams (2012) and Weizerman &

Snow 2001) who found that prelingually deaf learners lacked the necessary vocabulary at the expected grade levels. The finding in the present study specifically showed that prelingually deaf learners lacked mastery of indefinite articles at Class III level.

ii) Mastery of Adjectives

Mastery of the possessive adjective first person singular,; quantitative adjectives; base form, comparative and superlative adjectives; relative adjective 'who'; and indefinite adjectives. Was tested. The learners were asked to fill blanks in simple sentences using suitable adjectives selected from given choices in each case. Excerpts showing the learners' responses are shown in Fig. 3






<p>Excerpt 1: Mastery of Possessive adjective This is <u>mine</u> book.</p> <p>Excerpt 2: Mastery of quantitative adjectives 'many' 'much' How <u>much</u> brothers do you have? How <u>big</u> money do you have?</p> <p>Excerpt 3: Mastery of base form of descriptive adjectives  This is a <u>small</u> ball  This is a <u>big</u> ball</p>	<p>Excerpt 4: Mastery of Comparative and Superlative adjectives  <u>biger</u>  <u>biggest</u>  <u>big</u></p> <p>Excerpt 5: Mastery of relative adjectives 'who' A person <u>black</u> teaches children is called a teacher.</p> <p>Excerpt 6: Mastery of indefinite adjectives 'any' and 'some' We don't have <u>some</u> money. Please give me <u>may</u> water.</p>
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Figure 3: Excerpts Showing Mastery of Adjectives (n=178)

Excerpt 1 (Fig. 3), the learner used possessive pronoun **mine** instead of a possessive adjective **my** to complete the sentence. Only 65 (36.5%) learners chose the correct adjective to complete the sentence. From the results, the learners lacked mastery of possessive adjective first person singular.

In Excerpt 2, the learner used the **qualitative adjective 'much'** instead of **the quantitative adjective 'many'**. Only 47 (26.4%) learners used the adjective correctly. The learner also used a wrong vocabulary instead of the quantitative adjective “many” to complete the second sentence. Only 36 (21.3%) learners used the adjective correctly. From the results, the learners lacked mastery of the two adjectives.

In Excerpt 3, the learner used the **descriptive adjectives 'small'** correctly to complete the first sentence. A total of 103 (57.9) learners used the adjective correctly. The learner also used the descriptive adjective **'big'** to complete the second sentence correctly. A total of 162 (90.4%) learners used the adjective correctly. From the results, the learners had mastery of the base form descriptive adjectives relating to size.

In Excerpt 4, the learner used **'biger' (bigger)** the comparative form instead of **the base form** of the descriptive adjective **'big'** to describe the first ball.. Only 26(14.6%) used the base form. The learner also used the superlative form **(biggest)** instead of the comparative form to describe the second ball. . Only 17(9.6%) learners used the comparative form, the learner the base form of the adjective **'big'** correctly to describe the last ball. All the 178(100%) learners used base form **'big'**. instead of the superlative form **'biggest'** to describe the last ball. From the results, the learners lacked mastery of the comparative and superlative forms of adjectives.

In Excerpt 5, the learner used an **a descriptive adjective (black)** instead of the **relative adjective 'who'** to complete the sentence. Only 14 (7.9%) learners used the relative adjective. From the results, the learners lacked mastery of relative pronoun.

In Excerpt 6, the learner used the **indefinite adjective 'some'** instead the **infinite adjective 'any'** to complete the sentence. None of the learners (0.0%) used the infinite adjective correctly. Similarly the learner used “any’ instead of “some” to complete the second sentence. None (0.00%) used the adjective correctly. From the results, the learners lacked mastery of the use of the **relative adjective 'who'**.

From the results (Fig. 3), the learners lacked mastery of base, comparative, superlative forms of adjectives, possessive, quantitative, qualitative, relative and indefinite adjectives. The finding means that lack of mastery of adjectives is a contributor to the learners’ mastery of construction of sentences. The finding concurred with William (2012); Weizerman and Snow (2001) who found that prelingually deaf learners were deficient in vocabulary at grade and age appropriate ages. The finding of the current study, however specifically showed the specific adjectives that prelingually deaf learners lacked by the end of Class III. facilitating teaching at functioning level.

iii) Mastery of Adverbials

Mastery of adverbials entailed the use of the intensifier '**very**' and '**too...to**'; adverbs of time, place, manner and reason. The learners were asked to fill blanks in simple sentences using suitable adverbs selected from given options. Excerpts showing the learners use of the adverbials are presented in Fig.4

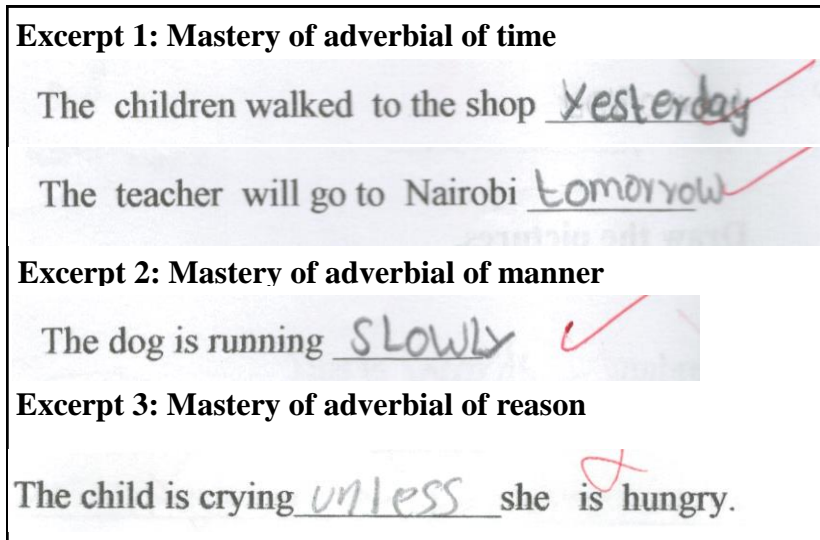


Figure 4: Excerpts Showing Mastery of Adverbials (n=178)

In Excerpt 1 (Fig. 4), the learner used the **adverbial of time 'yesterday'** correctly to complete the first sentence. A total of 114 (64.0%) learners used the adverb of time correctly. The learner also used the adverbial of time '**tomorrow**' correctly to complete the second sentence. A total of 123 (69.1%) learners used the adverbial correctly

In Excerpt 2, the learner used the **adverbial of manner 'slowly'** correctly to complete the sentence. A total of 100 (56.2) learners used the adverbial correctly.

In Excerpt 3, the learner used a **conditional conjunction 'unless'** instead of the expected **adverbial of reason 'because'** to complete the sentence. Only 23 (12.9%) learners used the adverbial of reason correctly.. From the results (Fig. 4), the learners had mastery of the use of adverbials of time and manner but lacked mastery of adverbial of reason. The finding means that lack of mastery of adverbs of reason is a contributing factor to the learners' mastery of sentences. The finding concurred with William (2012) and Weizerman and Snow (2001) who found that PRE-LD learners were deficient in English vocabulary.

iv). Mastery of Prepositions

Mastery of prepositions entailed the use of the prepositions 'on, in, and under' indicating location of objects. The learners were asked to observe a picture in each case then fill a blank in a simple sentence using own suitable vocabulary. Excerpts showing the learners' use of the prepositions are presented in Fig.5

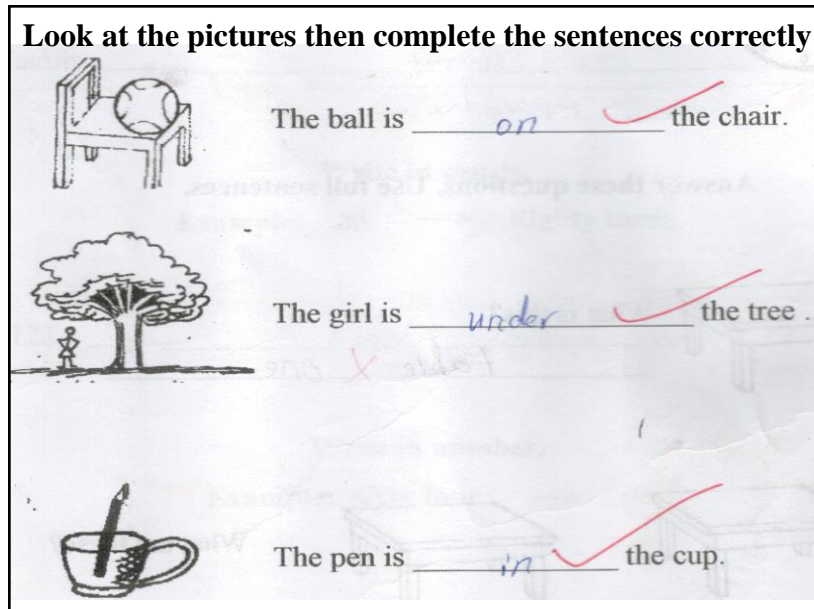


Figure 5: Excerpts Showing Mastery of Prepositions (n=178)

In Fig.5, the learner used **the prepositions 'in', 'on' and 'under'** correctly to complete the three sentences. A total of 110 (61.8%) used the preposition 'in' correctly, 142 (79.8%) used 'on' correctly and 107 (60.1%) used 'under' correctly. From the results, the learners had mastery of the use of the prepositions in simple sentences. The finding was consistent with Lederberg, Schick and Spencer (2012); Lederberg and Spencer (2001) and William (2012) who found that 9 Elementary and High school prelingually deaf learners had mastery of some English vocabulary. The current study, however, specifically showed that prelingually deaf learners who had not been exposed to language during CLAP had mastery of prepositions showing location of objects by Class III.

iv) Mastery of Pronouns

Mastery of pronouns entailed use of the personal pronoun first person subject singular; personal pronoun first person object singular; reflexive pronoun first person singular; indefinite pronouns and possessive pronoun first person singular. The learners were asked to fill blanks in simple sentences using suitable pronouns selected from given options. Excerpts showing the learners use of pronouns are presented in Fig. 6.

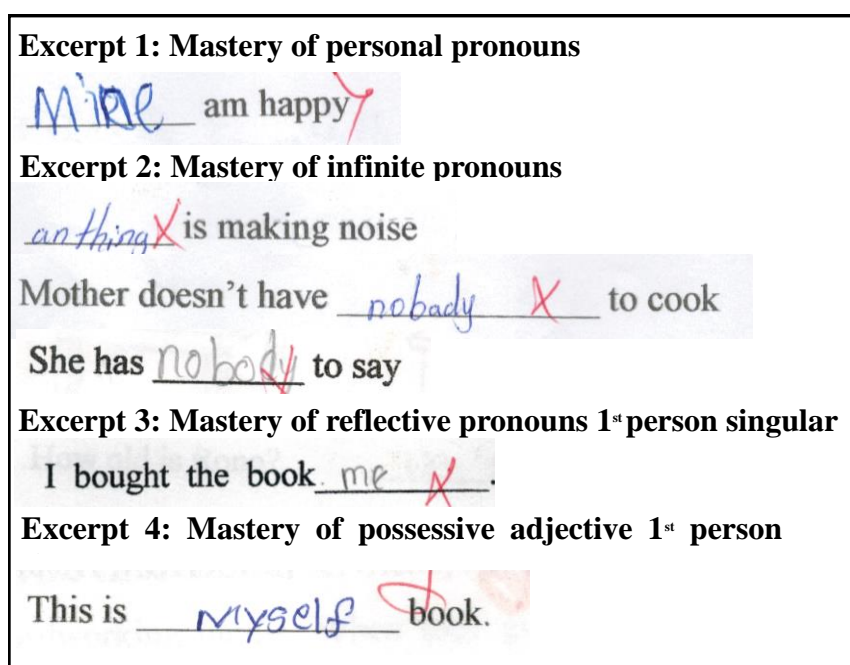


Figure 6: Excerpts Showing Mastery of Pronouns (n=178)

In Excerpt 1 (Fig. 6), the learner used a **possessive pronoun** 'mine' instead the expected **personal pronoun** 'I' to complete the sentence. A total of 169 (94.9%) learners used a wrong vocabulary to complete the sentence.

In Excerpt 2, the learner used the **indefinite pronoun** 'anything' instead of 'nobody' to complete the first sentence. A total of 172 (96.6%) used a wrong vocabulary. The learner used the **indefinite pronoun** 'nobody' instead of 'anything' in the second sentence. 174(97.8%) used wrong vocabulary and used 'nobody' instead of 'anything' in the third sentence. A total of 168 (94.4%) learners used a wrong vocabulary.

In Excerpt 3, the learner also used a **reflexive pronoun “myself”** instead of a **descriptive “my”**. Only 12(6.4%) chose the correct pronoun.

From the results (Fig. 4), the learners lacked mastery of personal, indefinite and reflexive pronouns.

v) **Mastery of Auxiliary and Action Verbs**

Mastery of verbs involved the use of action verbs relating to everyday life at home and school; primary auxiliary verbs and modal verbs. To test mastery of action verbs the learners were asked to observe pictures of two boys doing two different activities then describe what they were doing using sentences chosen from given options. Mastery of primary auxiliary verbs was determined by qualitatively analyzing the learners' self-constructed sentences as used in the sub-tests. To test mastery of modal verbs, the learners were asked to fill blanks in simple sentences using suitable vocabulary chosen from given options. Excerpts of the learners' responses are presented in Fig. 7.

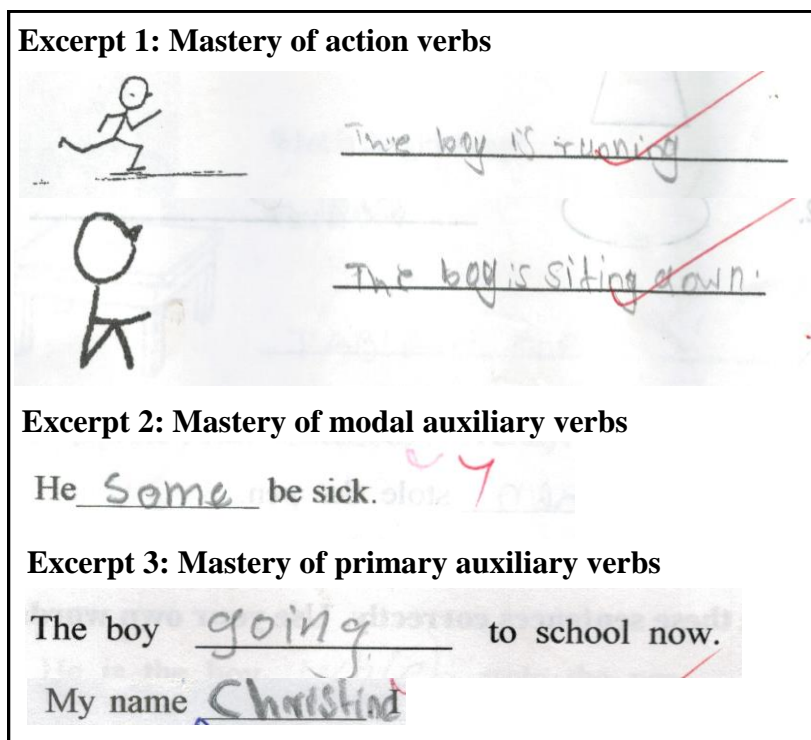


Figure.7: Excerpts Showing Mastery of Auxiliary and Action Verbs (n=178)

In Excerpt 1 (Fig. 7), the learner chose the sentences containing the right action verbs to correctly describe what the boys were doing. A total of 142 (79.8%) learners correctly described the boy running while 164 (92.1%) correctly described the boy sitting down

In Excerpt 2, the learner used a wrong vocabulary instead of the expected **modal auxiliary verb 'may'** to complete the sentence. Only 18(10.1%) learners used the modal auxiliary verb correctly.. The result means that the learners lacked mastery of the modal verb.

In Excerpt 3, the learner omitted the primary auxiliary verb 'is' in both the first and second sentences. A total of 172 (97.86%) learners omitted the auxiliary verb in the first sentence and 162 (91.01%) omitted the verb in the second sentence. From the results, the learners had mastery of action verbs but lacked mastery of primary and modal auxiliary verbs.

The results meant that lack of omission of primary and modal auxiliary verbs in sentences is principal contributor to the learners' low functioning level in English grammar. The finding is in concurrence with Ivimey (1976), Quigley and King (1980), Quigley, Power and Steinkamp (1974), Shagga (2012), Wilbur and Quigley, (1975) who found that prelingually deaf learners' sentences primarily of content words omitting form words ., However. the current study specifically showed the form words that the learners omitted in their sentences at Class III level.

i) Mastery of Conjunctions

Mastery of the following conjunctions was tested: connecting, coordinating and concession conjunctions. The learners were asked to complete sentences using suitable conjunctions chosen from given options. Excerpts showing the learners' use of conjunctions are presented in Fig. 8

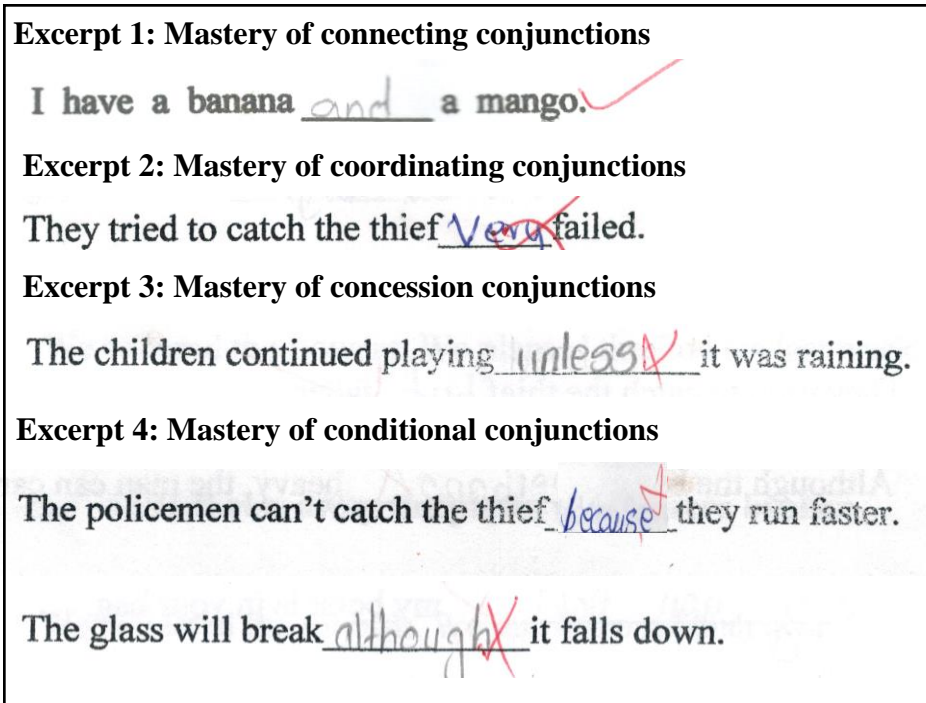


Figure 8: Excerpts Showing Use of Conjunctions (n=178)

In Excerpt 1 (Fig. 8), the learner used the **connecting conjunction 'and'** correctly to complete the sentence. A total of 122 (68.5%) learners used the conjunction correctly.

In Excerpt 2, the learner used a wrong vocabulary instead of the expected **coordinating conjunction 'but'** to complete the sentence. Only 43 (24.2%) learners used the conjunction correctly.

In Excerpt 3, the learner also used a wrong word instead of the expected **concession conjunction 'although'** to complete the sentence. Only 30 (16.9) learners used the conjunction correctly.

In Excerpt 4, the learner used a wrong vocabulary instead of the expected **conditional conjunction 'unless'** to complete the first sentence. Only 37(20.8%) learners used the correct conjunction. The learner also used a wrong vocabulary and instead of the **conditional conjunction 'if'** to complete the second sentence. 24(13.5%) learners completed the sentences correctly using 'if' and 'unless' respectively.

From the results (Fig. 8) the learners had mastery of connecting conjunctions but lacked mastery of coordinating, concession and conditional conjunctions. The results showed that lack of mastery of conjunctions is a contributing factor to the learners' low functioning level in English grammar. The results are consistent with other findings which also showed that Elementary PRE-LD learners are deficient in written language vocabulary (Lederberg & Spencer, 2001; Weizerman & Snow, 2001; 2012; Williams, 2012). However, the current study specifically showed the grammatical categories that Class III prelingually deaf learners in Kenya lacked in English grammar. From the results, lack of vocabulary is a contributing factor to the learners' low functioning level in English grammar.

4.3.2.2 Mastery of Morphological Structure

Mastery of the following skills was investigated: mastery of regular plural markers and irregular plural, regular tense markers and irregular tense.

Where a skill was tested using one or two test items, the learners were considered to have mastery of the skill when the test item(s) is answered correctly. Where a skill was tested using three test items, a learner was considered to have mastery of a skill when at least two test items are answered correctly. The learners were considered to have the skill when at least 50% (89) learners had the skill.

i) Mastery of regular plural markers and the irregular plural

Mastery of regular plural entailed use of the regular plural markers '-s', '-es', '-ies' and '-ves' while mastery of irregular plural forms involved mastery of irregular plural of nouns relating to everyday life at home and school. The learners were asked to change the following nouns from singular to plural using own construction: cat, mango, knife and family. To test mastery of irregular plural the learners were asked to write the following words in plural: man, ox and sheep. Excerpts showing the learners' are presented in Fig.9.

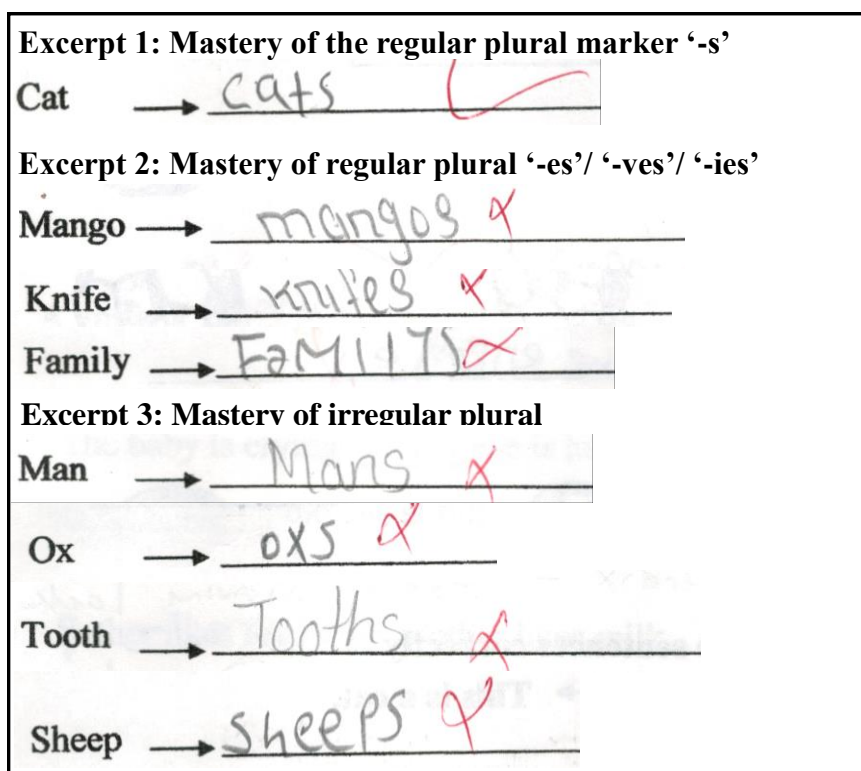


Fig 9: Excerpts Showing Mastery of the Regular plural markers and the Irregular Plural (n=178)

In Excerpt 1 (Fig.9), the learner used the **plural marker '-s'** to correctly form the plural of 'cat'. A total of 106 (59.6%) learners used the plural marker correctly.

In Excerpts 2, the learner **generalized the use of the plural marker '-s'** to form the plural of 'mango', 'knife' and 'family'. Only 52 (29.2%) learners wrote the plural of 'mango' correctly, 18 (10.1%) learners wrote the plural of 'knife' correctly and 27(15.2%) learners wrote the plural of 'family' correctly. From the results, the learners lacked mastery of the plural markers **-es, -ves and -ies**.

In Excerpt 3, the learner generalized the use of the plural marker **'-s'** to form **irregular plural of 'man', 'ox', 'sheep' and 'tooth'**. Only 15(8.4%) wrote the plural of **'man'** correctly, 3(1.7%) wrote the plural of **'ox'** correctly, 13(7.3%) wrote the plural of **'sheep'** correctly and

17 (9.6%) learners wrote the plural of **'tooth'** correctly. From the results (Fig. 8) the learners had mastery of **the plural** maker **'-s'** but lacked mastery of **the regular plural markers** **'-es', '-ves', '-ies'** **and the irregular plural**. The finding showed that lack of mastery of regular and irregular plural was a contributor to the learners' low function level in English grammar.

The finding concurred with , Lenerberg and Spencer (2001), Quigley and Power (1977), William (2012), Weizerman and Snow (2001) who found that Elementary and High School PRE-LD learners in Britain and USA who had been drawn from various grades across the curriculum lacked mastery of vocabulary. The finding of the current study, however, specifically showed the specific morphological structure Class III PRE-LD learners lacked to be able to acquire vocabulary relating to singular and plural.

ii) Mastery of Tense Markers

Mastery of the following tense markers was tested: simple past tense marker **'-ed'**, third person singular tense marker **'-s'** and present continuous tense marker **'-ing'**. To test mastery of the plural marker **'-ed'**, the learners were asked to change words from simple present to simple past tense. To test mastery of the tense markers **'-s'** and **'-ing'**, the learners were asked to fill blanks in sentences using own words'.

The learners were considered to have mastery of a given tense marker when 50% (89) learners used the marker correctly. Excerpts showing the learners' responses are presented in Fig.10

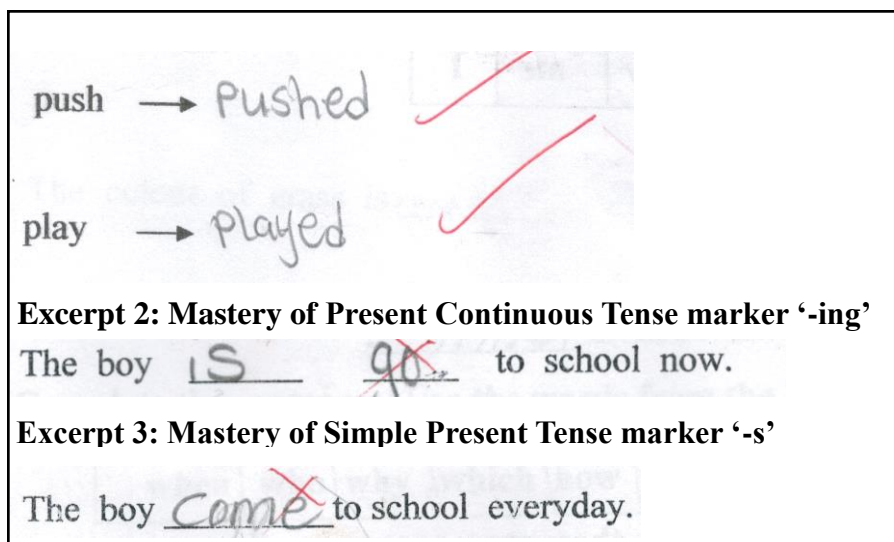


Figure 10: Excerpt Showing Mastery of Tense Markers (n=178)

In Excerpt 1 (Fig. 10), the learner used the **tense marker '-ed'** correctly to form the plural of 'push' and 'play'. A total of 166 (93.3%) learners wrote the past tense of 'push' and 169 (94.9%) learners wrote the **past tense of 'play'** correctly.

.In Excerpt 2, the learner wrote **'The boy is go to school now'** omitting the tense marker '-ing' in the construction. A total of 17 (196.1%) learners omitted the tense marker in their sentences.

In Excerpt 3, the learner wrote **'The boy come to school everyday'** instead of **'The boy comes to school everyday'** omitting **the simple present third person tense marker '-s'** in the construction. All the 178 (100%) learners omitted the tense marker in their sentences.

From the results, the learners had mastery of the simple past tense marker **'-ed'** but lacked mastery of the present continuous tense marker **'-ing'** and the simple present third person tense marker **'-s'**. The results showed that lack of mastery of tense markers was a contributor to the learners' low functioning level in English grammar. The results were consistent with earlier findings which also showed that Elementary and High School PRE-LD learners lacked

mastery of tenses (Quigley and Powers, 1977; Lederberg and Spencer, 2001). The current study, however, showed the specific tense markers that PRE-LD learners lacked by Class III. facilitating teaching at their functioning level.

4.3.2.3 Mastery of Syntactic Structure

To establish mastery of English syntactic structure, the following skills were tested: mastery of plural forms of simple sentences, construction of sentences in different tenses, construction of simple sentences using given sentence patterns, construction of compound sentences, word-order in sentences, use of clauses, verb and adjectival phrases.

i) Mastery of Plural Forms of Simple Sentences

Mastery of plural forms of the simple sentence patterns was tested. The learners were asked to change given sentences from singular to plural using own construction. They were considered to have mastery of a given plural form when at least 50% (89) learners correctly changed the sentence from singular to plural. Excerpts of the learners' responses are presented in Fig 11.

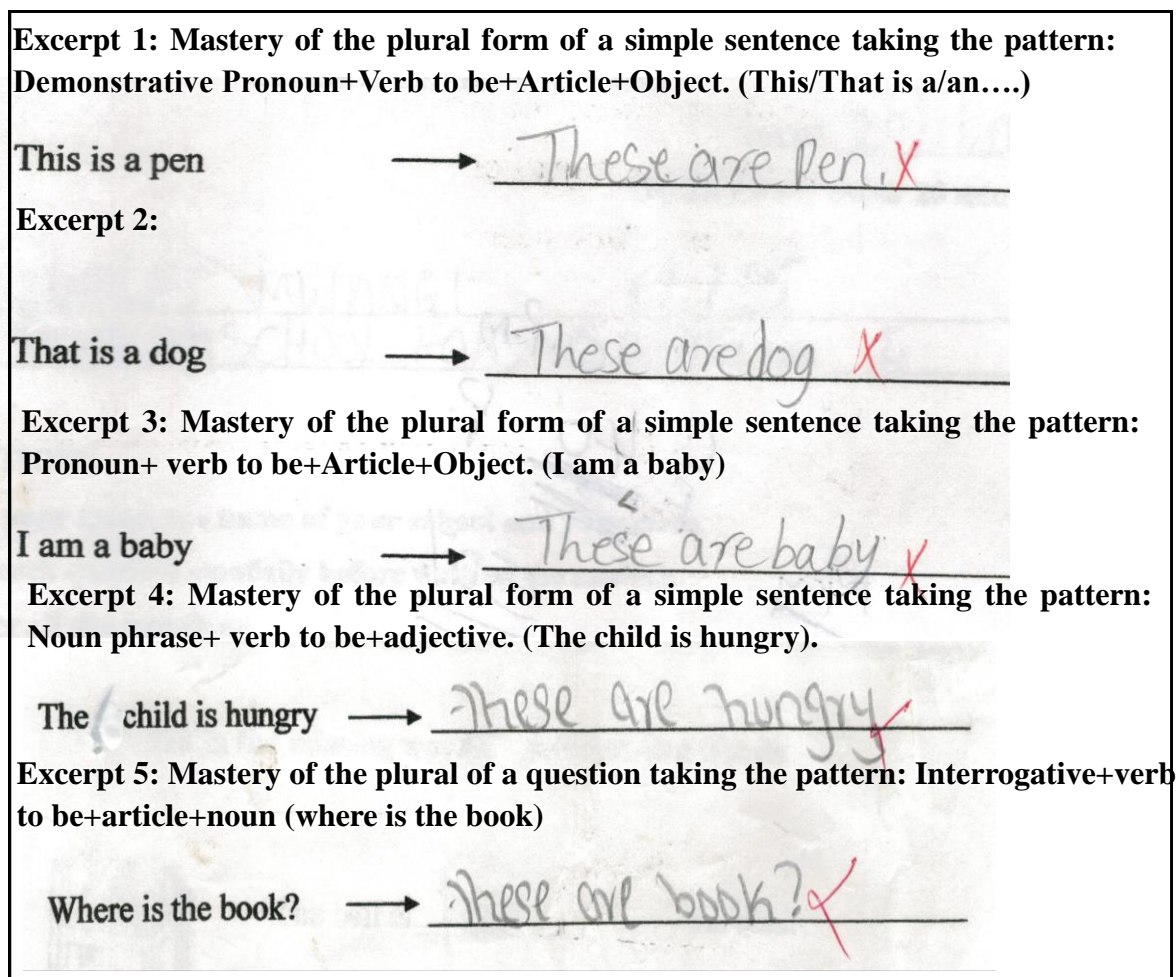


Fig.11: An Excerpt Showing Mastery of Plural in Simple Sentences (n=178)

In Excerpt 1 (FIG. 10), the learner wrote '**These are pen**' instead of '**These are pens.**' omitting the regular **plural marker '-s'**. From the response, there was no '**Subject-Verb Agreement**' in the sentence. A total of 159 (89.33%) learners constructed similar sentences which had no 'subject-verb agreement'.

Similarly, in Excerpt 2, the learner wrote '**these are dog**' instead of '**Those are dogs**' omitting the plural marker '-s' as a bound morpheme to the noun 'dog'. The learner also used the relative pronoun '**these**' instead of '**those**'. A total of 158(88.76%) learners used '**these**' instead of '**those**' in their sentences while the remaining 20 (11.24%) learners used sequences of words that did not make sense'. From the results the learners had no mastery of the plural

form of a simple sentence taking the pattern: **Demonstrative Pronoun+Verb-to-be+Article+Object.**

In Excerpt 3, the learner wrote '**These are baby**' instead of '**We are babies**'. The learner used the relative pronoun '**these**' instead of the personal pronoun '**we**'. The learner also used '**baby**' instead of '**babies**'. From the response, the learner lacked mastery of plural form of the personal pronoun first person singular and the plural 'baby'. A total of 151 (84.83%) learners made similar grammatical errors. From the results, the learners lacked mastery of plural forms of personal pronouns and irregular plural to be able to write sentences in plural.

In Excerpt 4, the learner wrote '**These are hungry**' instead of '**The children are hungry**'. The learner used the relative pronoun '**these**' instead of the noun phrase '**The children**'. A total of 129 (72.47%) learners made the same error. The remaining 49 (27.53%) learners copied the test item as an answer. From the results, the learners lacked mastery of the noun phrases to be able to write in plural a sentence containing a noun phrase.

In Excerpt 5, the learner wrote 'These are book' instead of the expected question form 'Where are the books'. From the response, the learner wrote a statement instead of a question indicating lack of mastery of the discourse functions of the two sentences. A total of 168 (94.38%) learners wrote the statements for an answer while the remaining 10 (5.62%) learners copied the test item as an answer. The results showed that the learners lacked mastery of the discourse function of an interrogative sentence to be able to write a question in plural.

From the results (Fig.11), the learners lacked mastery of tense markers, subject verb-agreement, irregular plural forms of words, noun phrases and discourse function of interrogative sentences to be able to write a simple sentences in plural. This finding is

consistent with earlier findings which also showed that the Elementary and High school learners were lagging behind the curriculum in the mastery of sentences (Berent, 2001, 1996, 1993; Traxler,2000; Lederberg & Spencer, 2001, Powers, 2002). However, the finding of the current study specifically shows the sentence types that Class III PRE-LD learners cannot write in plural. The finding indicated that lack of mastery of plural forms of sentences is a contributing factor to the learners functioning level in English grammar.

ii) Mastery of the Use of Tenses in Simple Sentences

Mastery of the use of the following tenses in simple sentences was tested: present continuous, simple present, future, simple perfect, past perfect continuous and simple past perfect tense. The learners were asked to complete simple sentences using own words. They were considered to have mastery of a given tense when at least 50% (89) of the learners had the skill. Excerpts showing the learners' reponses are presented in Figure 12.

Excerpt 1: Mastery of Present Continuous Tense in 3rd Person Singular

The boy going to school now.

Excerpt 2: Mastery of Simple Present Tense in 3rd Person Singular

The boy come to school everyday.

Excerpt 3: Mastery of Simple Past Tense in 3rd Person Singular

The boy go to school yesterday.

Excerpt 4: Mastery of Future Tense in 3rd Person Singular

The boy is going to school tomorrow.

Excerpt 5: Mastery of Simple Present Perfect Tense

The boy has already went to school.

Excerpt 6: Mastery of Past Perfect Continuous Tense in 3rd Person Singular

The boy has been went ~~going~~ to school.

Fig.12: Excerpt Showing Mastery of Tenses in Simple Sentences (n=178)

In Excerpt 1 (Fig. 12), the learner wrote ‘**The boy going to school now**’ instead of ‘**The boy is going to school now.**’ The learner omitted the **primary auxiliary verb ‘is’** although tense was signaled by the adverbial of time ‘**now**’. Only 6 (3.4%) learners completed the sentence correctly using the auxiliary verb.

In Excerpt 2, the learner wrote ‘**The boy come to school everyday**’ instead of ‘**The boy comes to school everyday**’. The learner used **simple past tense** instead of **simple present**

tense third person singular. Only 5 (2.8%) completed the sentence using the correct tense.

In Excerpt 3, the learner wrote ‘**The boy go to school yesterday**’ instead of ‘**The boy went to school yesterday**’. The learner used simple **present tense** instead of **simple past tense**.

Only of 12 (6.7%) learners used the correct tense to complete the sentence

In Excerpt 4, the learner wrote that: ‘**The boy is going to school tomorrow**’ instead of ‘**The boy will go to school tomorrow**’. The learner used present continuous tense instead of future tense. Only 4 (2.2%) learners completed the sentence correctly.

In Excerpt 5, the learner wrote that: ‘**The boy has already went to school**’ instead of ‘**The boy has already gone to school**’. The learner used simple past tense instead of simple perfect tense. None (0.0%) of the learners constructed a grammatically correct sentence in simple perfect tense.

In Excerpt 6, the learner wrote ‘**The boy has been went to school**’ instead of ‘**The boy has been going to school**’. Only 2 (1.1%) learners completed the sentence correctly.

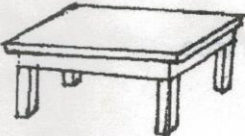
From the results (Fig. 11), the learners lacked mastery of present continuous tense, simple present tense, simple past tense, future tense, past perfect tense and past perfect continuous tenses. The finding concurred with Lerderberg, Schick & Spencer (2012), Quigley, Power and Steinkamp (1977) Quigley, Wilbur and Montannelli (1974) ; Shagga (2012) who found that Elementary and High School PRE-LD learners lacked mastery of tenses. The finding in the current study specifically showed the tenses that PRE-LD learners lacked at by Class III level. The implication is that the teaching of English grammar should aim at mastery of the expected tenses by the end of Class III.

iii) Mastery of Construction of Simple Sentences


Construction of the following simple sentences was tested: construction of a grammatically correct sentences using the pattern: **‘Demonstrative pronoun + verb- to be + (article) + noun’**; construction of simple sentences containing transitive and intransitive verbs; construction of a simple sentence showing the location of an object.

To test mastery of construction of the sentences the learners were asked to observe given pictures then answer given questions. Excerpts of the learners' responses are presented in (Fig. 13).

Excerpt 1: Construction of a Simple Sentence with the pattern; Relative pronoun+auxilliary verb+noun




What is this?
table one




What are these?
table two

Excerpt 2: Construction of simple sentence containing an intransitive



What are they doing?
boys tow running

Excerpt 3: Construction of a simple sentence containing a transitive



What is the girl doing?
bicychet gril

Figure 13: An Excerpt Showing Mastery of construction of Given Sentence Patterns(n=178)

In Excerpt 1 (Figure 13), the learner wrote: 'TABLE ONE' instead of the expected sentence 'This is a table'. A 173 (97.2%) learners used a similar sentence structure.

. In Excerpt 2, the learner wrote 'TABLE TWO' instead of; 'These are (two) tables'. A total of 140 (78.7%) learners used the same response. From the results, the learners were unable to construct grammatically correct simple sentence in singular and plural using the sentence pattern ' **Demonstrative pronoun+verb to be+(article)+noun**.The sentences took the pattern **Noun+Complement(Topic+Comment)** 'Topic+Comment' is a sentence pattern in Kenyan Sign Language.(Ali, Okwaro & Ogotu 2003; Akach ,1991; Okombo,O, Akaranga, W., Mweri,J,G and Ogotu,T,A,2006). From the results, the learners' sentences took the syntactic structure of KSL. The finding is consistent with earlier studies which also showed that PRE-LD learners' English sentences tended towards the grammatical structure of Sign Language (Miller, 2000; Quigley & King, 1980; Quigley, Powers and Steinkamp,1977; Quigley, Wilbur and Momtannelli, 1974; Shaga, 2012 ; Wilbur and Quigley,1975).

In Excerpt 2, the learner wrote ' **boys tow(two) running**' instead of '**The (two) boys are running**'. The learner used the sentence pattern **Noun Phrase+ Verb** instead of using **Noun Phrase+Auxiliary Verb+Intransitive Verb**. The construction also took the syntactic structure of KSL. .A total of 144 (80.9%) learners used the KSL sentence structure.

Similarly in Excerpt 3, the learner wrote '**bicycle girl (ride)**' instead of '**The girl is riding a bicycle**'. The sentence took the structure **Object+Subject-Verb (ride)** omitting the **auxiliary verb 'is', the indefinite article 'a' and the definite article 'the'**in the construction instead of using the English structure **Noun Phrase+auxiliary Verb+Transitive Verb**. '**Object+Subject+Verb**' is a sentence structure in KSL (Ali, Okwaro & Ogotu, 2003; Akach, 1989). All the 178 (100%) learners used KSL sentence structure.

From the results (Fig. 13), lack of mastery of the English sentence pattern '**Demonstrative pronoun+verb to be+(article)+noun, Noun Phrase+Auxiliary Verb+Intransitive Verb, Noun Phrase+auxiliary Verb+Transitive Verb**' and omission of the primary auxiliary verbs, definite and indefinite articles is a contributor to the learners' low functioning level in English grammar.

The finding is consistent with earlier findings which showed that PRE-LD learners lacked mastery of English sentence structure with their sentences tending towards the grammatical structure of sign language (Lerderberg, Schick & Spencer, 2012; Quigley, Power and Steinkamp, 1977; Quigley; Wilbur and Montannelli;1974; Shagga ;2012). However, the findings related to PRE-LD learners who had acquired English with Sign Language as L1. The current study related to PRE-LD learners who began to acquire English without any exposure to Sign Language or any other language as L1.

iv). Mastery of Word-Order in Simple Sentences

Mastery of word-order in sentences with the following patterns was analyzed: Noun Phrase + auxiliary verb + main verb + noun; Noun Phrase + auxiliary verb + verb phrase + noun.

The learners were asked to re-arrange words to form grammatically correct simple sentences in English. The learners were considered to have mastery of a given sentence pattern when at least 50% (89) of them formed grammatically correct sentences. Excerpts of the learners' responses are presented in Fig 14.

Excerpt 1: Mastery of word-order in a simple sentence taking the pattern: Noun Phrase+Auxiliary Verb+Main Verb+Noun (The Cat is drinking milk).

Milk the cat drinking is → The is milk cat drinking,

Excerpt 2: Mastery of word-order in a simple sentence taking the pattern: Noun Phrase + Auxiliary Verb +Verb Phrase +Noun (The Children are going to school)

To school the children going are → The are children to school going,

Fig.14: Excerpt Showing Mastery of Word-Order in Simple Sentences (n=178).

In Excerpt 1 (Fig.14), the learner wrote ‘**The is milk cat drinking**’ instead of ‘**The cat is drinking milk**’. The learner’s sentence did not follow English word-order, **Noun Phrase+Auxiliary Verb+Main Verb+Noun**. None (0%) of the learners re-arranged the words to form a grammatically correct simple sentence in English.

Similarly, in Excerpt 2, the learner wrote ‘**The are children to school going**’ instead of ‘**The children are going to school**’. The learner’s sentence did not follow English word-order. None (0.0%) learners followed the correct word-order to construct a grammatically correct sentence.

From the results (Fig 14), lack of mastery of word-order in sentences is a contributing factor to the learners low functioning level in English grammar. The finding concurred with earlier studies which also showed that Elementary and High school PRE-LD learners lacked mastery of the syntactic structure of written languages (Shagga, 2012; Quigley, Powers and Steinkamp, 1977; Quigley and King, 1980; Wilbur and Quigley,1975). The studies, however, related to PRE-LD learners who had been exposed to language during CLAP. The current study related to PRE-LD learners who had not been exposed to language during CLAP.

v) **Mastery of Construction of Compound Sentences**

Construction of compound sentences containing relative pronouns and a coordinating conjunction was tested. The learners were asked to join two simple sentences using own words. Excerpts of the learners' responses are shown in Fig. 15.

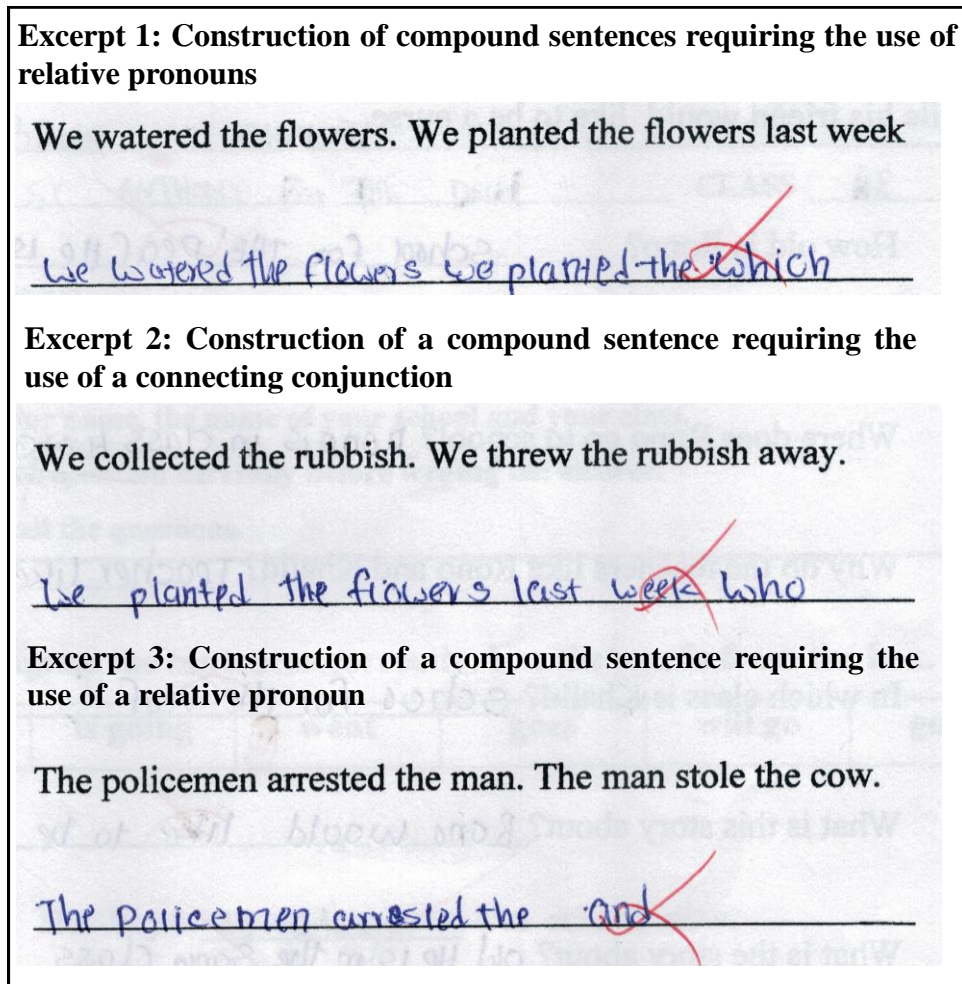


Fig. 15: Excerpt Showing Mastery of Construction of Compound Sentences(n=178)

In Excerpt 1 (Fig. 15), the learner wrote **We planted the flowers we planted the which** instead of **'We watered the flowers which we planted last week'**. The learner constructed a grammatically incorrect which did not make sense instead of using a relative pronoun to join the two sentences. All the 178 (100%) learners were unable to join the sentences to form a grammatically correct sentence. In Excerpt2, the learner wrote **'We planted flowers last**

week who' instead of **'We collected the rubbish and threw them away'** The learner not only failed to use the connecting conjunction to join the two sentences but also simply copied a sequence words from Excerpt 1. The response showed that there was no comprehension of the sentences. None (0.0%) joined the two sentences correctly. Similarly, in Excerpt 3, the learner wrote **'The policeman arrested the and'** instead of **'The policeman arrested the man who stole the cow'**. The learner did not use the relative adjective 'who' to join the sentences correctly. . All the 178 (100%) learners were unable to join the two sentences correctly.

From the results (Fig.15), the learners lacked mastery of relative pronouns, connecting conjunctions relative adjectives and comprehension at sentence level to be able construct a compound sentence in English. The finding showed that lack of mastery of compound sentences and comprehension at sentence level is a contributor to the learners' low functioning level in English grammar. The finding concurred with earlier studies which also showed that that Elementary school PRE-LD learners lacked mastery of compound sentences (Shagga, 2012; Quigley, Powers and Steinkamp,1977; Quigley and King, 1980; Wilbur and Quigley,1975). The current study, however, specifically showed the specific factors that limited the learner's mastery of compound sentences by Class III.

iii) Construction of Simple Sentences Using Verb and Adjectival Phrases

Mastery of the following verb and adjectival phrases was tested: used for, looks like, going to, want to, good at. Excerpts showing the learners' responses are presented in Fig. 16.

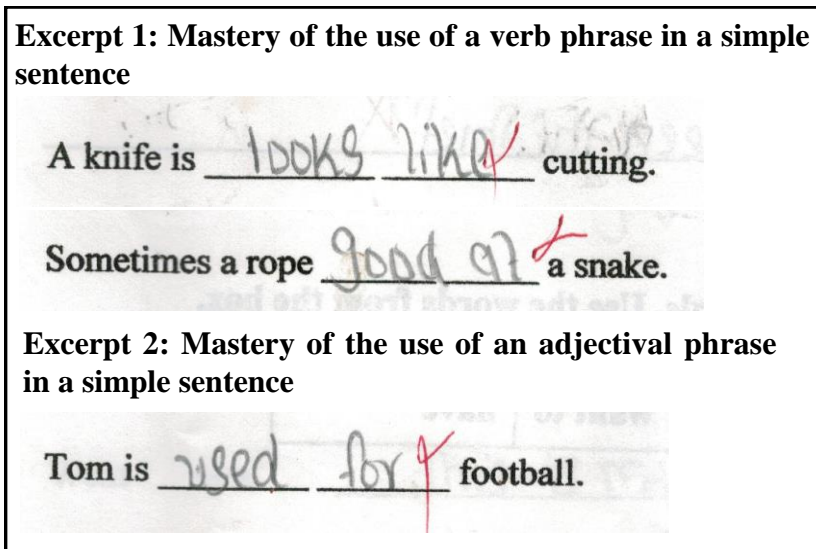


Fig.16.Excerpts Showing Mastery of Verb and Adjectival Phrases in Simple Sentences(n=178)

In Excerpt 1 (Fig. 16), the learner used the **verb phrase** 'looks like' instead of 'used for' to complete the sentence. A total of 160 (89.9%) learners chose the wrong vocabulary to complete the same sentence. Similarly, the learner used the **adjectival phrase** 'good at' instead of the **verb phrase** 'looks like' to complete the second sentence. A total of 173 (97.2%) learners chose the wrong vocabulary to complete the same sentence. From the results, the learners lacked mastery of verb phrases.

In Excerpt 2, the learner wrote **The boy is used for football** instead of **The boy is good at football**. None of 178 (100%) learners completed the sentence correctly using the adjectival phrase.

From the results, the learners lacked mastery of verb and adjectival phrases to be able to construct grammatically correct sentences. The results showed that lack of mastery of verbal and adjectival phrases is a contributor to the learners' low functioning level in English grammar. The findings concurred with Lederberg, Schick and Spencer (2012), Lederberg and

Spencer (2001), Miller (2004), Weizerman and Snow (2001), William, (2012) who found that Elementary School PRE-LD learners were limited in the use of vocabulary in written language. The current study, however, showed the specific verb and adjectival phrases that PRE-LD learners lacked by the end of Class III.

4.4 Assessment of Class III Prelingually Deaf Learners' Functioning Level in Reading

Comprehension

The second objective of the study was to establish the functioning level of Class III prelingually deaf learners in reading comprehension. Data was collected using reading comprehension tests for Class I, II and III shown in Appendices 4, 5 and 6. Data is presented and analyzed as follows: functioning level in reading comprehension; mastery of reading comprehension skills.

4.4.1 Functioning Level

Data was analyzed using a language rating scale with the criterion pass mark set at 50%. The scale was used as follows: 0-24%: Very Weak; 25-49%: Weak; 50% or above: Grade Functioning Level Attained. The learners' functioning level in English reading comprehension was considered to be at Class III level when at least 50% (89) of them got the criterion pass mark. The learners' functioning level was taken to be at Class I level when they failed to attain Class II level reading comprehension. The results are presented in Table 4

Table 4: Class III Prelingually Deaf Learners' Functioning Level in Reading Comprehension (n=178)

GRADE LEVEL	Scores (x/100) with criterion pass mark set at 50%		
	0-24% f (%)	25-49% f (%)	50% or above f (%)
CLASS III	164 (92.1)	14 (7.9)	0 (0.0)
CLASS II	156 (87.6)	22 (12.4)	0 (0.0)
CLASS I	120 (67.4)	58 (32.6)	0 (0.0)

Key: 0-24%: Very Weak, 25-49%:Weak, 50% or above: Grade Functioning Level Attained

At Class III level (Table 4), 164(92.1%) of the learners were very weak obtaining between 0–24 marks at Class III level. None of the learners obtained the criterion pass mark of 50%. From the results, the learners’ functioning level in reading comprehension was below Class III level.

At Class II level, 156(87.6%) were very weak recording 0-24% marks. None of the learners obtained the criterion pass mark. The result showed that the learners’ functioning level in reading comprehension was below Class II level.

At Class I level, 120(67.4%) learners were very weak recording 0-24% marks. The remaining 58(32.6%) learners obtained 25-49% marks. None of the learners obtained the criterion pass mark. The results showed that the learners’ functioning level in reading comprehension was at Class I level which is the beginning grade level in Primary School.

From the results (Table 4), the learners were lagging behind the curriculum by three academic years. The finding was consistent with similar studies in USA, Britain, Netherlands, Israel and Spain which showed that the functioning level of Elementary and High school prelingually deaf learners was below the expected curriculum outcomes. The level was found to be at Grade IV level or below in USA and Britain (Traxler, 2000; Powers, 2002) but was at Grade I level or below in Spain and the Netherlands (Montreal & Hern'andez, 2005; Wauters, 2006). Such findings, however, related to prelingually deaf learners whose parents knew sign language or the target spoken language as their children's L1. The current study showed the reading comprehension level of prelingually deaf learners who joined school at the age of 3-6 years without mastery of any language as L1 and who, therefore, had limited or no opportunity to acquire knowledge of the world around them before school.

4.4.2 Mastery of Reading Comprehension Skills

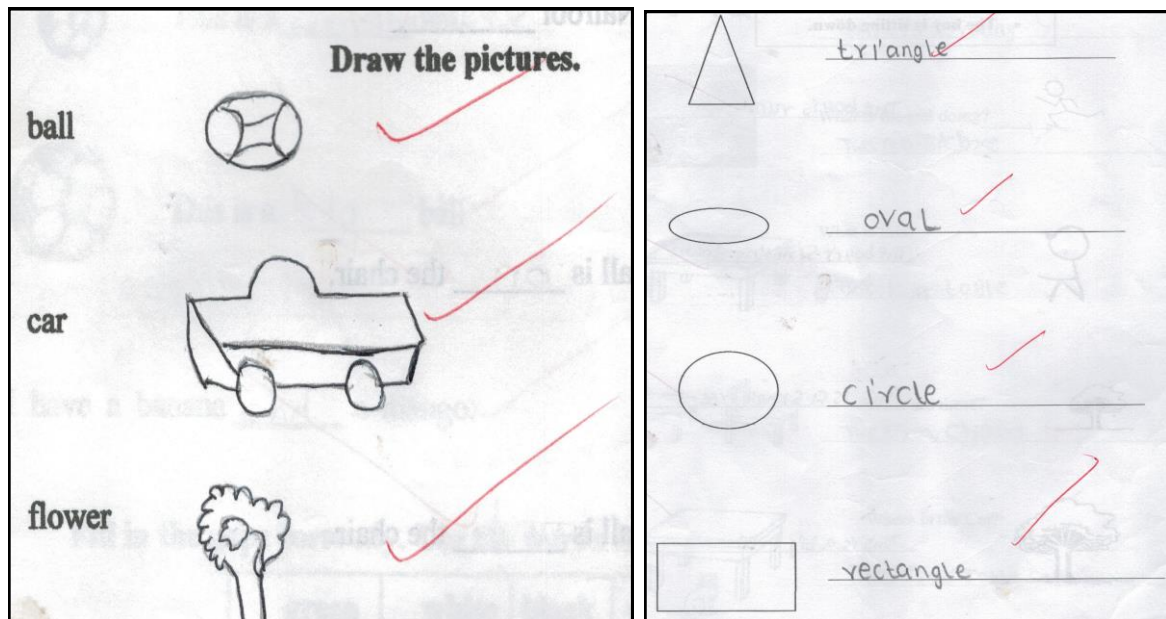
In order to confirm whether or not the functioning level of Class III prelingually deaf learners was indeed at the level established using the criterion pass mark of 50%, the skills the learners had mastered was examined using document analysis schedules (Appendices 13, 14 and 15) The skills mastered were then compared with the skills the learners were expected to master at Class I, II and III as specified in the curriculum. Mastery of the following reading comprehension skills was established: reading comprehension at one-word, sentence and short passage levels.

4.4.2.1 Comprehension at One-word Level

The following skills were tested at one word level: reading for comprehension words relating names of objects in everyday life. The learners were asked to read a given word then sketch its drawing. Reading for comprehension names of the following common geometrical shapes was also tested: triangle, oval, circle and rectangle. The learners were asked to observe

drawings of each shape then match it with word that describes it selected from four choices.

Excerpts of the learners' responses are presented in Fig.17.



(a)

(b)

Fig. 17 : Excerpts Showing Mastery of Reading Comprehension at One-word Level (n=178)

In Fig 17(a), the learner read the words 'ball', 'car' and 'flower' and drew correct corresponding sketches. The result showed that the learner understood the words. A total of 169 (94.9%) learners read 'ball' and drew the correct sketches, 166 (93.3%) drew the correct sketches for 'car' and 142(79.8%) drew the correct sketches for 'flower'. The results showed that the learners had mastery of reading for comprehension names of objects found in everyday life at home and school.

In Fig.17(b), the learner matched the words 'triangle', 'oval', 'circle' and 'rectangle' correctly to the shapes. A total of 128 (71.9%) learners matched 'triangle' to the correct

picture, 130 (73.0%) learners matched 'oval' to its picture correctly, 111 (62.4%) learners matched 'circle' to its picture correctly and 132 (74.2%) learners matched 'rectangle' to its picture correctly. The results showed that the learners read and understood names of geometrical shapes.

From the results (Fig.16), the learners had mastery of reading for comprehension at one-word level. The finding concurred with Chi (2000), Merrills, Underwood and Wood (1994), Wauters, van Bon, Tellings and Leeuwe (2006) and William (2012) who also found that Elementary school PRE-LD learners had mastery of vocabulary relating to home and school.

4.4.2.2. Comprehension at Sentence Level

To test mastery of reading for comprehension at sentence level, the learners were asked to match simple sentence describing activities in everyday life with the pictures they describe.

Excerpts showing the learners responses are presented in Fig. 18

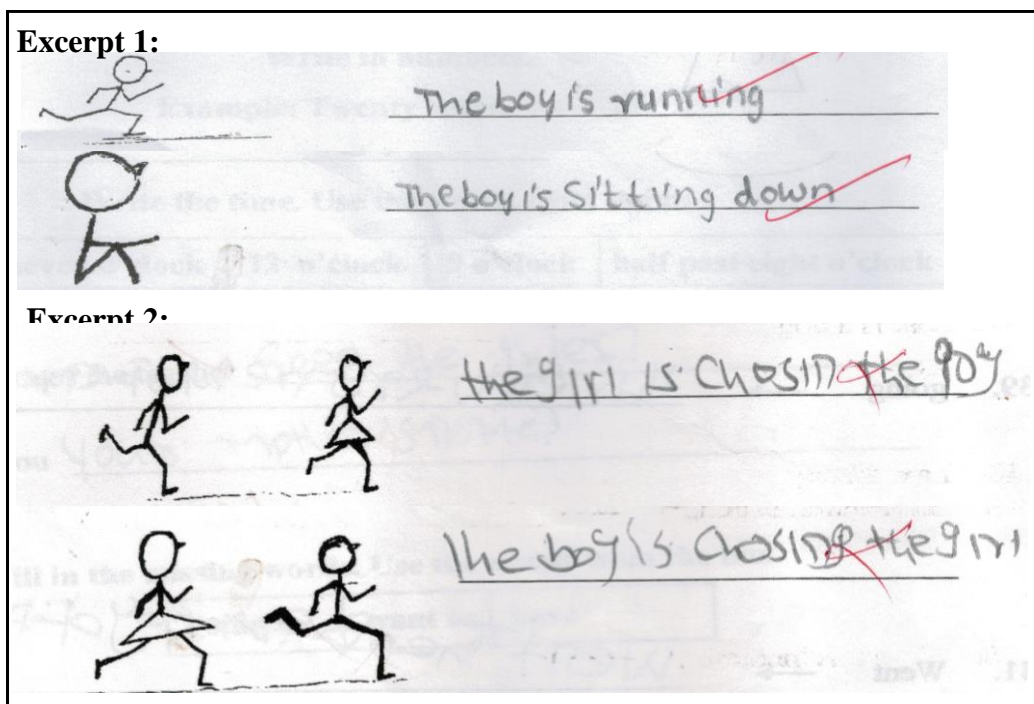


Fig. 18: Excerpts Showing Mastery of Reading for Comprehension at Simple Sentence Level (n=178)

In 1 (Fig. 18), the learner matched correctly the drawing with the sentence describing.. A total of 168 (94.4%) learners correctly matched the drawing with the sentence. The learner also marched correctly the second drawing to the sentence descriing it. A total of 172 (96.6%) learners matched correctly the drawing with the sentence describing it.. From the results the learners had mastery of simple sentences whose meaning can be interpreted from the meaning of the content words within the sentence.

In Excerpt 2, the learner marched wrongly the drawings with the given sentences.. A total of 148 (83.1%) learners were unable to match correctly the drawing of the boy chasing the girl with sentence describing it. The learner also unable match the drawing of the girl chasing the boy with the sentence describing it. A total of 167 (93.8%) learners were unable to match the drawing with the sentence describing it.

From the responses the learners lacked mastery of reading for comprehension a simple sentence whose interpretation require mastery of English syntactic structure. The finding is consistent with similar studies which also showed that prelingually deaf learners experience difficulties comprehending English at sentence level sentences due deficiency in the grammatical structures of spoken languages (Chi,2000; Dyer, MacSweeney, Szezerbinsiski, Campell, 2003; MILLER, 2010b; Wauters, van Bon, Tellings and van Leeuwe, 2006).

4.4.2.3. Comprehension at Passage Level

To test mastery of reading for comprehension at the passage level, the learners were asked to read a short passage of 56 words then answer some written questions from the passage. The passage was about a Class IV pupil and a classmate. The questions tested comprehension of literal meaning, implied meaning and relationship of thought. Excerpts showing the learners' responses are presented in Fig 19.

Read this story carefully then answer the questions

Rono is in Class 4 at Garissa Primary School for the Deaf. He is 10 years old. He is in the same class as his friend, Khalid. The teachers like them because they are hardworking pupils. When they grow up, Rono would like to be a doctor while his friend would like to be a nurse.

Excerpt 1:

How old is Rono?

He is 10 years old.

Where does Rono go to school?

for the deaf.

Why do the teachers like Rono and Khalid?

them because they are.

Excerpt 2:

In which class is Khalid?

hardworking pupils.

Excerpt 3:

What is this story about?

in class A at Garissa primary

Fig. 19: Mastery of Reading for Comprehension at Short Passage Level (n=178)

In Excerpt 1 (Fig.19), the learners were to state the age of one of the characters in the story. A total of 143 (80.3%) learners answered this question correctly by either copying the sentence directly or copying the age only. The result showed that the learners had mastery of comprehension of simple sentences whose meanings are explicitly stated in a short passage. From the same excerpt, the learner was unable to answer correctly the third question which demanded comprehension of literal meaning of a compound sentence containing cohesive ties. Only 3 (1.7%) learners stated correctly the school being attended by Rono while none of

the 178 (0.0%) stated correctly why the two learners were liked by their teachers. The results showed that the learners lacked mastery of compound sentences and cohesive ties to be able to comprehend a short passage.

In Excerpt 2, the learner wrote the wrong answer to the question which demanded comprehension of implied meaning.. None of the 178 (0.0%) learners answered the question correctly. The result showed that the learners lacked mastery implied meaning to be able to comprehend a short passage.

In Excerpt 3, the learners were to answer a question that required mastery of relationship of thought in the whole passage and prior knowledge of the world around us. None (0.0%) of the learners answered the question correctly. The result showed that the learners lacked mastery of relationship of thought in a texts.

From the results (Fig. 19), the learners had mastery of literal meaning of simple sentences whose meanings do not demand mastery of English syntactic structure. But they lacked mastery of meaning of compound sentences, implied meaning and relationship of thought in texts. The finding concurred with Maina (2015) who found that Form IV PRE-LD learners lacked mastery of vocabulary and sentence patterns to comprehend Mathematics word problems at Form IV level. Maina (2015) asked the learners to underline vocabulary and sentences not understood in a passage.

In the current study, the learners were asked to answer comprehension questions that tested Class III prelingually deaf learners' mastery of literal meaning, implied meaning and relationship of thought in a passage. Unlike Maina (2015), the finding of the current study specifically showed Class III prelingually deaf learners' strengths and needs in reading comprehension at passage level. The finding can be used by teachers to teaching of reading

comprehension on mastery of literal meaning, implied meaning relationship of thought, cohesive ties and prior knowledge of the world around us.

4.5 Assessment of Class III Prelingually Deaf Learners' Functioning Level in Expressive Written English

The third objective of the study was to assess the functioning level of Class III deaf learners in expressive written English. Data was collected using three Expressive Written English tests for Class I, II and III shown in Appendices 7, 8 and 9 and analyzed as follows: functioning level in expressive written English; mastery of expressive written English skills.

4.5.1 Functioning Level

Data was analyzed using a language rating scale with the criterion pass mark set at 50%. The scale was used to rate the learners as follows: 0-24%: Very Weak; 25-49%: Weak; 50% or above: Grade Functioning Level Attained. The learners were considered to be functioning at Class III or II levels when at least 50% (89) learners obtain the criterion pass mark. The learners were considered to be functioning at Class I level when 50% (89) learners or above fail to get the criterion pass mark at Class II level (Table 5).

Table 5: Class III Prelingually Deaf Learners' Functioning Level in Expressive Written English (n=178)

GRADE LEVEL	Scores (x/100) with criterion pass mark set at 50%		
	0-24% f (%)	25-49% (%)	50% or above f (%)
CLASS III	178 (100.0)	0 (0.0)	0 (0.0)
CLASS II	178 (100.0)	0 (0.0)	0 (0.0)
CLASS I	140 (78.6)	38 (21.4)	0 (0.0)

Key: 0-24%: Very Weak, 25-49%: Weak, 50% or above: Grade Functioning Level Attained

From Table 5, all the 178 (100%) learners were very weak at Class III and II levels obtaining 0-24% marks. None of the learners obtained the criterion pass mark of 50%. The results showed that the learners functioning level in expressive written English was below Class III and II levels. At Class I level, 140 (78.6%) learners were very weak recording 0-24%. The remaining 38 (21.4%) learners obtained 25-49%. None of the learners obtained the criterion pass mark.

From the result (Fig. 19), the learners' functioning level in expressive written English was at Class I level. The results showed that the learners were lagging behind the curriculum by three academic years. The finding concurred with Traxler (2000) and Powers (2002) who found that the functioning level of Elementary and High school PRE-LD learners was at Class I level in USA and Britain respectively. However the findings related to prelingually deaf learners who were exposed to the target language during the critical language acquisition period of 0-3 years and who had acquired the language in environments where it was a home language and majority language. The current finding related to PRE-LD learners who started

acquiring English late at the age of 3-6 years when in an environments where it was not a home or majority language. The learners had also acquired English in an environment where it was not a home or majority language.

4.5.2 Mastery of Expressive Written English Skills

In order to confirm that the functioning level of Class III prelingually deaf learners was indeed at Class I level as established using the criterion pass mark, the skills the learners had mastered were established using expressive written English document analysis guides (Appendices 16, 17 and 18). The skills mastered were then compared to the skills specified in the Class I, II and III English syllabi. Mastery of the following expressive written skills were verified: expression at one-word level, expression at the sentence level and ability to write a short guided composition of about 56 words.

4.5.2.1. Expression at One-word Level

The learners' mastery of letters of the alphabet was first tested by asking them to fill missing letters in the alphabet.

They were then asked to observe pictures of given objects relating to everyday life then write their names to test mastery of expression at one- word-word level. Excerpts showing the learners' responses are presented in Fig. 20.

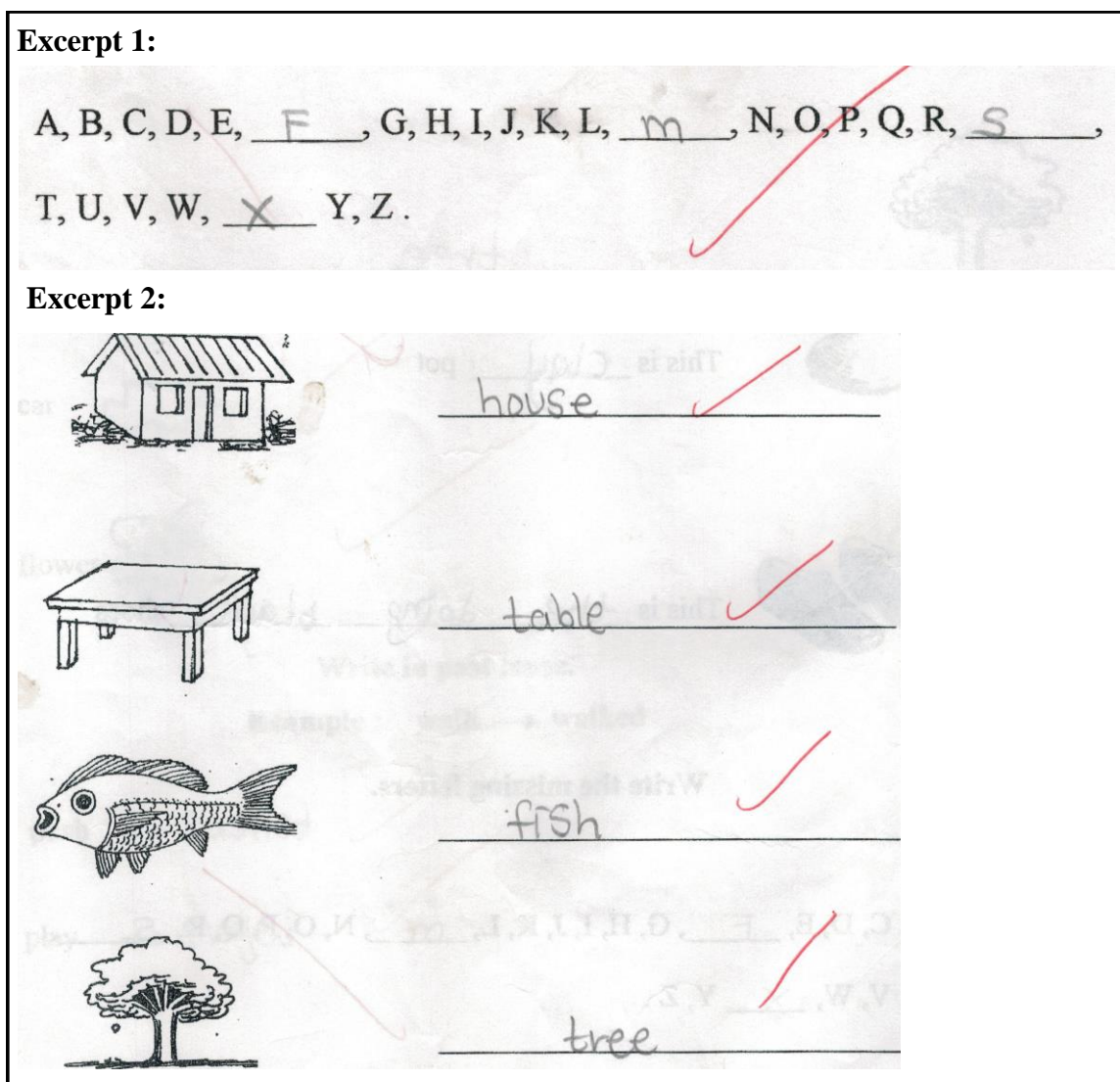


Fig.20: Excerpts Showing Mastery of Expressive Written English at One-word Level (n=178)

In Excerpt 1 (Fig. 20), the learner correctly completed the alphabet. A total of 173 (97.2%) learners completed the alphabet correctly. From the results the learners had mastery of letters of the alphabet from A-Z.

.In Excerpt 2, the learner wrote the names of the four objects relating to everyday life correctly using own words. A total of 161 (90.4%) learners name the house correctly; 154 (86.5%) learners named the table correctly; 174 (97.8%) learners named the fish correctly and 172 (96.7%) learners named the tree correctly. From the results, the learners had mastery

of expression at one-word level. The finding concurred with Wezerman and Snow (2010), William (2012) who found that PRE-LD learners had mastery of vocabulary.

4.5.2.2. Expression at Sentence Level

The learners were asked to state own age and to describe the location of a cat sitting under a table using own sentences. Excerpts showing the learners' responses are shown in Fig. 21

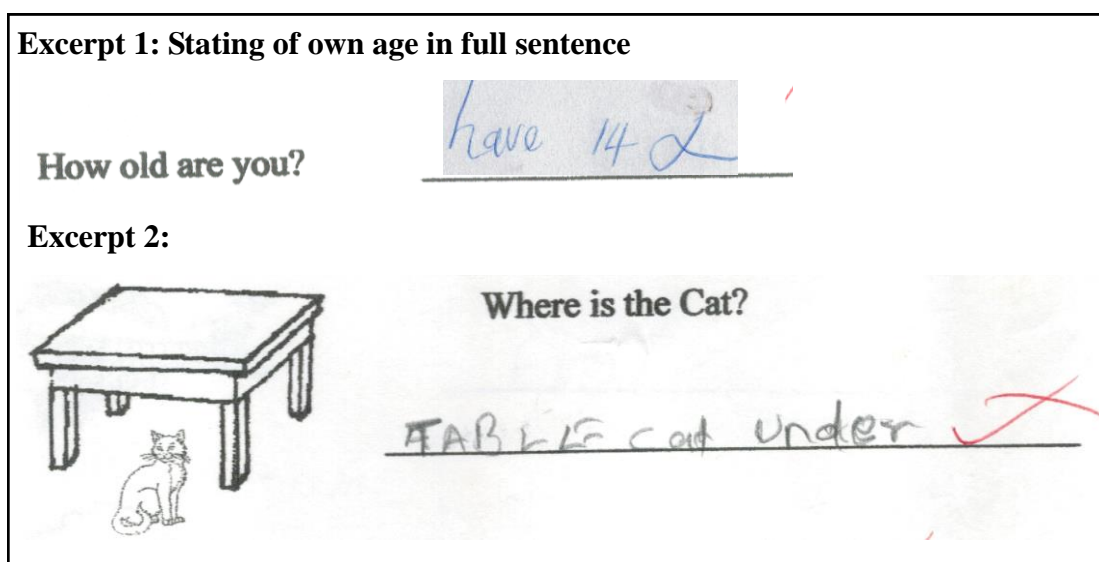


Fig. 21: Excerpts Showing Expression at Sentence Level (n=178)

From Excerpt 1 (Fig.20), the learner wrote ‘**have 14**’ instead of ‘**I am 14/fourteen years old**’. The learner missed the subject (I), the verb-to-be (am) and the noun phrase (years old) in the sentence. The response showed that the learner lacked mastery of English structure taking the form: **Subject + Verb + Noun Phrase**. None (0.0%) of the learners answered the question using a grammatically correct English sentence.

In Excerpt 2, the learner wrote ‘**TABLE cat under**’ instead of ‘**The cat is under the table**’. The learners’ response took the sentence structure of KSL (**Topic+ Comment**) instead of the expected English structure (**Subject + Verb+ Noun Phrase**).. None (0.0%) of the learners used grammatically correct English sentence to describe the position of the cat. From the

results (Fig.21), the learners lacked mastery of English sentence structure to be able to express themselves in written English at sentence level.

4.5.2.3. Ability to Write a Guided Composition.

The learners were asked to write a guided composition of 56 words by filling blanks in a text using own words. The guided composition related to everyday life Class IV learners. An excerpt showing a response by one the learners is presented in Fig.22.

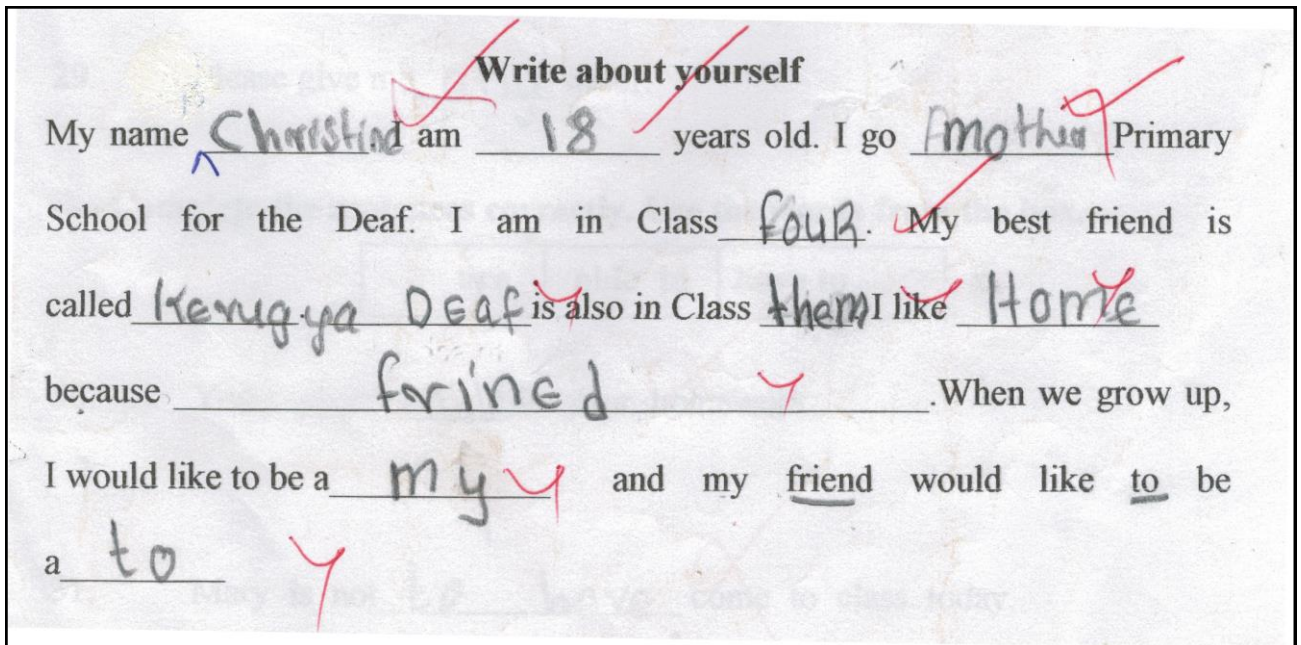


Fig.22: An Excerpt of Showing a Guided Composition by Class III PRE-LD Learners (n=178)

In the first sentence (Fig. 22), the learner wrote 'My name Christine' instead of 'My name is Christine' omitting the verb-to-be 'is'. A total of 155 (87.1%) learners omitted the verb in their sentences. The learners lacked mastery of construction of a simple English sentence taking the sentence structure 'Subject + Verb + Object'. From the results, lack of mastery of construction of a simple sentence taking the structure 'Subject + Verb + Object' is a contributor to the learners' low functioning level in expressive written English.

In the third sentence, the learner wrote **'I go mother Primary School for the Deaf'** instead of **'I go to (Umoja) Primary School for the Deaf.** The learner used a **noun (mother)** instead of a **verb phrase (go to)**. A total of 163 (91.6%) made the same grammatical error. The learners lacked mastery of construction of a simple sentence taking the sentence structure **Subject (Pronoun) + Verb Phrase + Object**. From the results, lack of mastery of construction of a simple sentence taking the sentence structure **Subject + Verb Phrase + Object** is a contributor to the learners' low functioning level in expressive written English.

The findings concurred with Ogada (2012), Powers (2002) and Traxler (2000) who also found that Elementary School PRE-LD learners were deficient in mastery of English sentence structure to sustain expression at text level. However, the current study shows the specific simple sentence structures that the learners lack by the end of Class III facilitating teaching at functioning level.

In the fourth sentence, the learner wrote **'My best friend is called Kerugoya Deaf'** instead of **'My best friend is called (Mary).** The learner used a name of a place instead of a name of a person to complete the sentence. A total of 147 (82.6%) learners completed the sentence using wrong vocabulary. The learners lacked mastery of comprehension at sentence level to state the name of a friend in a full sentence. From the results, lack of mastery of reading comprehension at sentence level is a contributor to the learners' low functioning level in expressive written English. The finding is consistent with Lederberg, Schick and Spencer (2012) and Moeller, Tomblin, Yoshinaga-Itano, Conner and Jerger (2007) who found that PRE-LD learners lacked mastery of reading comprehension at sentence level to sustain expression at text level. However, the current finding specifically shows the sentence type the learners are unable to read and understand to facilitate expression at text level by the end of Class III.

In the fifth sentence, the learner wrote **'.....is also in Class them'** instead of **(Mary) is also in IV/Four'**. The learner omitted the subject at the beginning of the sentence,. From the response, the learner lacked mastery of the English sentence structure **Subject/Verb/Object**. All the 178 (100%) learners completed the sentence incorrectly. From the results, lack of mastery of sentence is a contributor to the learners' low functioning level in expressive written English. The finding concurred with Ogada (2012) who found that Class VII learners with Hearing Impairment in Nyanza Province in Kenya lacked mastery of English sentences to be able to write a composition.

In the sixth sentence, the learner wrote **'I like home because frined'** instead of **'I like (Mary) because + (Adverbial of reason) .** The response was unintelligible and was grammatically incorrect. All the 178 (100%) learners completed the sentence using similar sequences of words which made no sense. The learners lacked mastery of construction of compound sentence containing an adverbial clause of reason to be able to be able to give a reason in a sentence.

In the last sentence, the learner wrote **"When we grow up, I would like to be a my and my friend would like to be a to.'** instead of **'When I grow up I would like to be a +(noun) and my friend would like to be+ (noun).** To state what one and a friend would like to be when they grow up required prior knowledge of the world around us. The response showed that the learner lacked the knowledge. The learner was also unable to use expected nouns as objects in a compound sentence containing adverbial of time, All the 178 (100%) learners were unable to state what they and their friends would like to be when they grow up. The learners lacked prior knowledge of the world and mastery of a compound sentence containing adverbial clause of time to be able to state what they would like to be when they grow up.

From the results, lack of prior knowledge of the world and mastery of compound sentences containing is a contributor to the learners' low functioning level in expressive written English,

The finding was consistent with Ogada (2012) which showed that Class VII Learners with Hearing Impairment in Nyanza Province Kenya lacked the expected vocabulary and sentences to be able to write a composition in English.

4.6 Relationship Between Class III Prelingually Deaf Learners' Performance in Grammar and Reading Comprehension

The fourth objective was to determine the relationship between Class III PRE-LD learners' performance in English grammar and reading comprehension.

The learners' overall performance in grammar and reading comprehension is reflected in their mean scores (Table 6).

Table 6: Class Three Prelingually Deaf Learners' Mean Scores in Grammar and Reading Comprehension (n=178)

Grade Level	Mean Score (%)
Class I English Grammar	11.64
Class I Reading Comprehension	17.42

The learners' mean score in English grammar was 11.64% and 17.42% in reading comprehension, The results showed better performance in reading comprehension than

grammar.

The relationship between the learners' performance in grammar and reading comprehension. was established using Pearson's (r) using a Scientific Parckage for Social Sciences (SPSS):

$$r_{xy} = \frac{\sum_{i=1}^n (X_i - \bar{X})(Y_i - \bar{Y})}{\sqrt{\sum_{i=1}^n (X_i - \bar{X})^2 \sum_{i=1}^n (Y_i - \bar{Y})^2}}$$

Where:

X = mastery of English Grammar and,

Y= mastery of Reading Comprehension.

The results are presented in Table 7.

Table 7: Matrix Showing the Relationship between Class III Prelingually Deaf Learners' Performance in English Grammar and Reading Comprehension

		Grammar Class 1	Reading Comprehension Class 1
	Pearson Correlation	1	.265**
Grammar Class 1	Sig. (2-tailed)		.000
	N	178	178
	Pearson Correlation	.265**	1
Reading Comprehension Class 1	Sig. (2-tailed)	.000	
	N	178	178

From the Table, there was a statistically significant relationship between the learners'

performance in grammar and reading comprehension ($r=0.265$, $n=178$, $p<0.05$). The results showed that an increase in the learners' performance in grammar had a corresponding increase in performance in reading comprehension. The implication in teaching and learning is that focus should be on mastery of English grammar to enhance the acquisition of expressive written English.

The shared variance was $r^2=0.07=7.0\%$. The results showed that only 7% of the learners' mastery of reading comprehension could be accounted for by their mastery of grammar. From the results, the remaining 93.0% could be attributed to other variables. Where learners have limited mastery of grammar, they use contextual clues such as content words to get meaning during comprehension. They also use prior knowledge of the topic being read and metacognition to comprehend texts (Al-Hilawani, 2003; Heinneman-Gosschalk, 1999; Jackson, Paul and Smith, 1997; Kyle and Harris, 2006; Miller, Kargin, Guldenoglu, Rathmann, Kubus, Hauser and Spurgeon, 2012). Maina (2015) found that mastery of grammar contributed to 68.0% of Form IV PRE-LD learners' performance in reading comprehension. The finding showed that at Form IV level, PRE-LD learners primarily rely on mastery of grammar to comprehend texts.

From the finding in the current study and that of Maina (2015), at Class III level which is a foundation class in Primary School, the learners rely more on contextual clues, prior knowledge of the topic being read and metacognition to comprehend texts than on mastery of grammar. However, at Form IV, the learners primarily rely on mastery of grammar for comprehension. The implication in teaching and learning is that the teaching of English to PRE-LD learners should focus on mastery of grammar at all grade levels to enhance the acquisition of reading comprehension.

The finding concurred with Miller (2000), Miller, Kargin, Guldenoglu, Rathmann, Kubus, Hauser and Spurgeon (2012), Montreal and Hernandez (2005), Wauters, van Bon and Tellings,(2006), Wauters, van Bon, Tellings and van Leeuwe (2006) who also found that PRE-LD learners rely more on grammar for comprehension of written texts as they acquire grammar skills.

4.7 Relationship between Class Three Prelingually Deaf Learners' Performance in Grammar and Expressive Written English

The fifth objective of the study was to determine the relationship between Class III PRE-LD learners' performance in English grammar and expressive written English. The learners' overall performance in grammar and expressive written English is reflected by their mean scores (Table 8)

Table 8: Class III Prelingually Deaf Learners' Mean Scores in Class I Level Grammar and Class I Level Expressive Written English (n=178)

Grade Level	Mean Score
Class I Level Grammar	11.64
Class I Level Expressive Written English	11.21

From Table 8, the learners' mean score in grammar was 11.64% and 11.21% in expressive written English. The results showed relatively equal performance in grammar and expressive written English.

The relationship between the learners' performance in grammar and expressive written English was determined using Pearson's (r) using a Scientific Parckage for Social Sciences

(SPSS):

$$r_{xy} = \frac{\sum_{i=1}^n (X_i - \bar{X})(Y_i - \bar{Y})}{\sqrt{\sum_{i=1}^n (X_i - \bar{X})^2 \sum_{i=1}^n (Y_i - \bar{Y})^2}}$$

where

X = mastery of English Grammar and,

Y= mastery of Expressive Written English

The results are presented in Table 9.

Table 9: Matrix Showing the Relationship between Class III PRE-LD Learners' Performance in Grammar and Expressive Written English

		Grammar Class 1	Expressive Written English Class 1
Grammar Class 1	Pearson Correlation	1	.302**
	Sig. (2-tailed)		.000
	N	178	178
Expressive Written English Class 1	Pearson Correlation	.302**	1
	Sig. (2-tailed)	.000	
	N	178	178

From Table 9, there was a statistically significant relationship between the learners' performance in English grammar and expressive written English ($r = .302$, $n = 178$, $p < 0.05$).

The result meant that an increase in the learners' performance in grammar had a corresponding increase in performance in expressive written English. The implication in

teaching and learning is that the teachers should ensure that PRE-LD learners have mastery of English grammar as a prerequisite to the acquisition of expressive written English.

The shared variance was $r^2 = 0.9 = 9\%$. The results showed that only 9% of Class III PRE-LD learners' mastery of written English is attributable to their mastery of English grammar. The remaining 91% is attributable to other factors. PRE-LD learners' written English tends towards the grammatical structure of Sign Language (Lederberg, Schick and Spencer, 2012; Marschark and Knoors, 2012; Moeller, Tomblin, Yoshinaga-Itano, Conner and Jerger, 2007; Powers and Leigh, 2000, Wilbur, 2000). The findings were consistent with the finding in the current study which also showed that English grammar of Class III PRE-LD learners in Kenya took the grammatical structure of KSL. From the findings, the low influence of mastery of English grammar on mastery of expressive written English can be explained by the influence of their KSL grammar.

The implication in teaching and learning is that teachers should ensure that PRE-LD learners have mastery of English grammar to enhance the acquisition of expressive written English.

CHAPTER FIVE

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

5.1. Introduction

Summary, conclusions and recommendations have been presented according to the objectives of the study as follows: assessment of English grammar functioning level of Class III PRE-LD learners in Kenya; assessment of reading comprehension functioning level of Class III PRE-LD learners in Kenya; assessment of expressive written English functioning level of Class III PRE-LD learners in Kenya; relationship between the performance in English grammar and reading comprehension of Class III PRE-LD in Kenya; relationship between the performance in English grammar and expressive written English of Class III PRE-LD in Kenya.

5.2. Summary of Findings

5.2.1 Assessment of C

The first objective of the study was to assess the functioning level of Class III PRE-LD learners in English grammar. The learners' functioning level and mastery of grammar skills was assessed.

5.2.1.1 Functioning Level in Grammar

The results showed that at Class III level, 99.4% (177) learners were very weak in grammar scoring 0–24%. None of the 178 learners (0.0%) obtained the criterion pass mark of 50% at this level. At Class II level, the results showed that most (144, 80.9%) learners were very weak in grammar scoring 0 – 24%. None of the learners obtained the criterion pass mark of

50%. At Class I level, (135, 75.8%) learners very weak scoring 0 -24%. None of the learners obtained the criterion pass mark of 50%.

From the results, none (0%) of the learners was functioning at Class Three or Two levels. This means that the learners were functioning at Class One level which is the beginning grade in Primary School.

5.2.1.2. Mastery of Grammar Skills

Mastery of the following grammar skills was assessed: grammatical categories, morphological and syntactic structures

i) Mastery of Grammatical Categories

Mastery of the following grammatical categories was tested: articles, adjectives, adverbials, prepositions, pronouns, verbs and conjunctions

Document analysis of the learners' responses as reflected in the English grammar tests showed that only 35(19.7%) learners had mastery of the **indefinite articles 'a'**, 23(12.9%) had mastery of **'an'**. From the results, the learners had no mastery of the two indefinite articles.

The analysis showed that 103 (57.9%) learners had mastery of descriptive adjectives relating to size. However, only 65 (36.5%) had mastery of possessive adjectives; 47 (26.4%), mastery of quantitative adjectives relating to countable nouns, 36(21.3%), mastery of quantitative adjectives relating to uncountable nouns; 162(90.4%), descriptive adjectives; 14(7.9), relative adjective; 26(14.6%), mastery of base form of adjectives; 17(9.6%), mastery of comparative adjectives; none(0.0%), superlative adjectives; 59(33.1%), relative adjectives; and 14(7.9%),

infinite adjectives. From the results, the learners had mastery of descriptive adjectives but lacked mastery of possessive adjectives, quantitative adjectives, infinite adjectives, relative adjectives; base, comparative and superlative adjectives.

It was also found that 114(64.0%) learners had mastery of adverbs of time and 100(56.2%) had mastery of adverbs of manner. Only 23(12.9%) learners had mastery of adverbials of reason. From the results, the learners had mastery of adverbials of time and manner but lacked mastery of adverbials of reason

The analysis also showed that 110 (61.85%) learners had mastery of the **preposition ‘in’**; 142 (79.8%) had mastery of **‘on’** and 107 (60.1%) had mastery of **‘under’**. From the results, the learners had mastery of prepositions indicating location of objects.

It was found that 9 (5.1%) learners had mastery of personal pronoun first person singular; 34 (19.1%). indefinite pronoun; 19 (9.6%), reflexive pronoun and 46 (25.8%), possessive pronoun. From the results the learners lacked mastery of personal, indefinite, reflexive and possessive pronouns

It was found that 142 (79.8%) learners had mastery of action verbs relating to everyday life at home and school, 18 (10.1%) learners had mastery of modal auxiliary verbs, 12 (6.7%) had mastery of the primary auxiliary verbs **‘is’** and 8 (4.5%) had mastery of **‘are’**.

From the results, the learners had mastery of action verbs relating to everyday life at home and school but lacked mastery of modal and primary auxiliary verbs.

The results showed that 122 (68.5%) used the connecting conjunction **‘and’** correctly; 43 (24.2%) used the coordinating conjunction **‘but’** correctly; 30 (16.9%) used the concession conjunction correctly; 37 (20.8%) used the conditional conjunction correctly and 24 (13.5%)

used the conditional conjunction ‘unless’ correctly. From the results, the learners had mastery of connecting conjunctions but lacked mastery of coordinating, concession and conditional conjunctions. A comparison of the learners’ mastery of grammatical categories with the expected curriculum outcomes as specified in English syllabi for Class I,II and III showed that that the vocabulary the learners had mastered were those they were expected to acquire in Class I at the beginning of the school year. The results showed that lack of mastery of grammatical categories was a major contributing factor to the learners’ low functioning level in English grammar.

ii) Mastery of morphological structure

Mastery of the following morphological structures was assessed: mastery of plural markers, tense markers and the regular plural. The results showed that 106 (59.6%) learners had mastery of the regular plural marker ‘-s’ but none (0.0%) the learners had mastery of the regular plural markers ‘-es’, ‘-ves’, and ‘-ies’ as well as irregular plural forms. From the results, learners had mastery of the regular plural marker ‘-s’ but lacked mastery of plural markers ‘-es’, ‘-ves’, ‘-ies, and the irregular plural.

A total of 166 (93.3%) learners used the tense markers ‘-ed’ correctly; 171 (96.1%) omitted the regular tense marker ‘-ing’ and all the 178 (100%) omitted the regular simple present tense marker third person singular ‘-s’ From the results, the learners had mastery of the regular plural marker ‘-s’ but lacked mastery of the tense markers ‘-ed’, ‘-ing’ and ‘-s’. The plural maker and the three tense markers are acquired in Class I at the beginning of the school year. The finding showed that lack of mastery of morphological structure is a significant contributor to the learners’ low functioning level in English grammar.

iii) Mastery of Syntactic Structure

Mastery of the following sentence structures was assessed: mastery of plural forms of simple sentences, construction of sentences in different tenses, construction of simple sentences using given sentence patterns, construction of compound sentences, word-order in sentences, verb and adjectival phrases.

None of the 178 (0.0%) learners constructed a grammatically correct sentence in singular and plural, simple past tense, present continuous tense, simple past tense, future tense, simple past perfect tense and past perfect continuous tense. None of the 178 (0.0%) learners used correct word-order, verb and adjectival phrases in t

From the results, the learners lacked mastery of construction of sentences; word-order in sentences; use of simple present, present continuous, simple past, future, simple perfect and future perfect tense continuous sentences, singular and plural forms of simple sentences and use of phrases The finding showed that lack of mastery of syntactic structures is a principal contributor to the learners' low functioning level in English grammar.

5.2.2. Assessment of Class III PRE-LD Learners' Functioning Level in Reading Comprehension

The second objective of the study was to determine the functioning level of Class III PRE-LD learners in English reading comprehension. Specifically, the learners' functioning level and mastery of reading comprehension skills was assessed.

5.2.2.1. Functioning Level in Reading Comprehension

The results showed that none of the 178 (0.0%) learners obtained the criterion pass mark of 50% at Class III, II and I levels. From the results, the learners' functioning in reading comprehension was at Class One level at the beginning of the School year.

5.2.2.2. Mastery of Reading Comprehension Skills

Mastery of reading for comprehension at word, sentence and short passage levels was assessed.

i) Mastery of Reading Comprehension at One-word Level

A total of 169 (94.9%) learners read and understand names of objects relating to everyday life and 128 (71.9%) read and understood names of common geometrical shapes found in everyday life. From the results, the learners had mastery of reading for comprehension at one-word level.

ii) Mastery of Reading Comprehension at Sentence Level

A total of 172 (96.6%) learners read and understand a simple sentence taking the grammatical structure, '**noun phrase + auxiliary verb + intransitive verb**'. whose meaning could be discerned from the content words in the sentence. However, all the 178 (100%) learners were unable to read and comprehend sentences taking the grammatical structure '**noun phrase + auxiliary verb + transitive verb**' whose interpretation demanded mastery of '**subject-verb-agreement**'. From the results, the learners had mastery of comprehension of simple sentences that could be understood from the meanings of content words but lacked mastery of comprehension of sentences that required mastery of morphological and syntactic structures.

iii) Mastery of Reading Comprehension at Short Passage Level.

None (0.0%) of the learners read and understood a short passage of 56 words for literal meaning, implied meaning and relationship of thought. All the 178 (100%) learners lacked prior knowledge of the world around, use of pronouns as cohesive ties in a text, vocabulary and sentence structure to be able to comprehend the passage. From the results, the learners lacked mastery of reading for comprehension at short passage level.

5.2.3. Assessment of Class Three Prelingually Deaf Learners' Functioning Level in Expressive Written English

The third objective of the study was to determine the functioning level of Class III PRE-LD learners in expressive written English. Specifically, the learners' functioning level and mastery of expressive written English skills was assessed.

5.2.3.1. Functioning Level in Expressive Written English

The results showed that all the 178 (100%) learners failed to attain the criterion pass mark of 50% at Class I, II and III levels. From the results, the learners' functioning in expressive written English was at Class One level at the beginning of the school year.

5.2.3.2. Mastery of Expressive Written English

Mastery of expression at One-word level, expression at sentence level and ability to write a guided composition was assessed.

i) Expression at One-word Level

A total of 173 (97.2%) learners had mastery of letters of the alphabet from A-Z and 161 (90.4%) learners wrote correctly names of objects found in everyday life at home and school using own words. From the results, the learners had mastery of expression at One-word level

using proper nouns.

ii) Mastery of Expression at Sentence Level

All the 178 (100%) learners were unable to write own names and to describe the location of objects using full sentences. From the results, the learners lacked mastery of expression at the sentence level. The results showed that lack of mastery of expression at sentence level was a principal contributing factor to the learners' low functioning level in expressive written English.

iii) Ability to Write a Guided Composition

All the 178 (100%) learners were also unable to write a guided composition of fifty six words (56). From the results, the learners lacked mastery of vocabulary, sentence structure, cohesive ties and prior knowledge of the world to be able to write a guided composition.

The results showed that lack of mastery of expressive written English was a principal contributing factor to the learners' low functioning level in English.

5.2.4 Relationship between Class Three PRE-LD Learners' Performance in Grammar and Reading Comprehension

The fourth objective of the study was to determine the relationship between Class III PRE-LD learners' performance in English grammar and reading comprehension. Significant positive relationship was found between the learners' performance in grammar and reading comprehension ($r = .265$, $p < 0.05$). From the results, an increase in the learners' performance in grammar resulted in a corresponding increase in performance in reading comprehension..

The shared variance was $r^2 = 0.07 = 7\%$. The result meant that 7% of mastery of reading

comprehension could be attributed to their mastery of grammar. The result showed that mastery of English grammar was a significant contributor to acquisition of reading comprehension. The implication is that PRE-LD learners should master English grammar to enhance the acquisition of reading comprehension.

5.2.5 Relationship Between Class III PRE-LD Learners' Performance in Grammar and Expressive Written English

The fifth objective of the study was to determine the relationship between Class III PRE-LD learners' performance in grammar and expressive written English. Significant positive relationship was found between the learners' performance in grammar and expressive written English ($r=0.302;p<0.05$). The result meant that an increase in performance in grammar resulted in a corresponding increase in performance in expressive written English.

The shared variance was $r^2 = 0.09 = 9\%$. The result meant that 9% of the learners' mastery of expressive written English was accounted for by their mastery of English grammar. The result showed that mastery of English grammar is a significant contributor to the learners' acquisition of expressive written English. The implication is that PRE-LD learners should master English grammar to enhance the acquisition of expressive written English.

5.3. CONCLUSION

5.3.1 Assessment of Class III Prelingually Deaf Learners' Functioning Level in English Grammar

The English grammar functioning level of Class III PRE-LD learners in Kenya was at Class I level at the beginning of the school year. The learners were lagging behind the curriculum by three academic years. Lack of mastery of grammatical categories, morphological structure and syntactic structure were the principal contributors to the learners' low functioning level in English grammar.

5.3.2 Assessment of Class III Prelingually Deaf Learners' Functioning Level in Reading Comprehension

Functioning level of Class III PRE-LD learners in Kenya in reading comprehension was at Class I level at the beginning of the school year. The learners were lagging behind the curriculum by three academic years. Lack of mastery of vocabulary, sentence structure, cohesive ties, and prior knowledge of the topic being read were the principal contributors to the learners' low functioning level in reading comprehension.

5.3.3 Assessment of Class III Prelingually Deaf Learners' Functioning Level in Expressive Written English

Functioning level of Class III PRE-LD learners in Kenya in expressive written English was at Class I level at the beginning of the school year. The learners were lagging behind the curriculum by three academic years. Lack of mastery of vocabulary, sentence structure, comprehension at sentence level, cohesive ties and prior knowledge of the topic being written about were the principal contributors to the learners low functioning level in expressive written English.

5.3.4. Relationship between Class III PRE-LD Learners' Performance in Grammar and Reading Comprehension.

PRE-LD learners' mastery of grammar is a significant contributor to their acquisition of reading comprehension.

5.3.5 Relationship between Class III Prelingually Learners' Performance in Grammar and Expressive Written English

PRE-LD learners' mastery of grammar is a significant contributor to the their acquisition of expressive written English.

5.4 RECOMMENDATIONS

5.4.1 Assessment of Class III PRE-LD Learners' Functioning Level in English Grammar

It was recommended that PRE-LD learners in Kenya be taught English grammar at their functioning levels irrespective of grade levels. The teaching should focus on mastery of grammatical categories, morphological and syntactic structures.

It was also recommended that parents of deaf children in Kenya be taught KSL as soon as their children are diagnosed with deafness to facilitate the acquisition a language by the children during CLAP

Review of the current language policy requiring PRE-LD learners in Kenya to start using English as a compulsory medium of instruction and examination as from Class IV was also recommended.

5.4.2 Assessment of Class III Prelingually Deaf Learners' Functioning Level in Reading Comprehension

It was recommended that PRE-LD learners in Kenya be taught reading comprehension at their functioning level irrespective of grade levels.

The teaching should focus on mastery cohesive ties, vocabulary, comprehension for literal meaning, implied meaning and relationship of thought.

Training of parents of deaf children KSL was recommended to facilitate acquisition of knowledge of the world around us which is a prerequisite to a mastery of reading comprehension.

5.4.3 Assessment of Class III Prelingually Deaf Learners' Functioning Level in Expressive Written English

It was recommended that PRE-LD learners be taught expressive written English at their functioning level irrespective of the grade levels. The teaching should focus on mastery of vocabulary, knowledge of the topic being written about, cohesive ties and self-expression at sentence and passage levels.

5.4.4. Relationship between Class Three PRE-LD Learners' Performance in Grammar and Reading Comprehension

It was recommended that schools should ensure that PRE-LD learners master the expected grammar skills at every grade level as from Class I to enhance the acquisition of reading comprehension.

5.4.5 Relationship between Class Three PRE-LD Learners' Performance in Grammar and Expressive Written English

It was recommended that schools should ensure that PRE-LD learners master the expected English grammar skills at every grade level as from Class I to enhance the acquisition of expressive written English.

5.5. Suggestions for Further Research

- i)** Based on the finding that Class III PRE-LD learners' English functioning level is at Class One level at the beginning of the school year, further research was suggested to determine the functioning levels of PRE-LD learners in other classes'
- ii)** Further research to determine the grade level at which PRE-LD learners can begin to use English as a compulsory medium of instruction and examination was also suggested.
- iii)** Based on the finding that Class III PRE-LD learners' low English functioning level was due to deficiencies in mastery of grammatical categories, morphological syntactic structure, reading comprehension and expressive written skills, further to determine causative factors was also suggested.

REFERENCES

- Ademokoya, J. (2007). Onset of Hearing Loss, Gender and Self Concept as Determinants of Academic Achievements in English Language of Students with Hearing Disability in Oyo State, Ibadan, University of Ibadan.
- Adoyo, P.O. (2004). *Kenya Sign Language and Simultaneous Communication: Differential effects on memory and comprehension in deaf children in Kenya*. Kisumu: Kenya Lake Publishers.
- Akmajian A.; Demers, R.; Farmer, A. & Harmish, R. (2006). *Linguistics: An Introduction to Language and Linguistics*. New Delhi:
- Al-Hilawani, Y. (2003). Measuring Students' Metacognition in Real Life Situations. *American Annals of the Deaf*, 148, 233,-242.
- Albertini, J. & Mayer, C. (2011). Using Miscue Analysis to Assess Comprehension in Deaf College Students. *Journal of Deaf Studies and Deaf Education*, 16(1), 35-46.
- Ali, B., Okwara, R., & Ogotu, T.A. (2003). *Elementary Kenyan Sign Language Part II*. Nairobi: Kenya Institute of Special Education.
- (2001). *Elementary Kenyan Sign Language: Part I*. Nairobi: Kenya Institute of Special Education.
- Allen, T. (1986). Patterns of Academic Achievement Among Hearing Impaired Students 1974-1983: In: S. M. Karchmer (Eds). *Deaf Children in America*. San Diego: Collegegettil, Pretice-Hall of India.
- American Educational Research Association, American Psychological Association and National Council on Measurement in Education (1999). *Standards for Educational and Psychological Testing*. Washington DC: American Research Association.
- Antia, S., Jones, P., Reed, S., & Kreimeyer, K. (2009). Academic Status and Progress of Deaf and Hard-of-Hearing Students in General Education Classrooms. *Journal of Deaf Studies and Deaf Education*, 14, 293-311.
- Arasa, J. (2004). Comparative Correlates of English Reading Achievements Among Standard Three Pupils in Slums in Nairobi. PhD Thesis, Kenyatta University.
- Association of Boards of Certification (2000). *Validating your Certification Examination*. Ames, Iowa: ABC. Retrieved from: <http://www.abccert.org> on 25th October, 2016
- Bachman, F.L and Palmer. A.S. (1996). *Language Testing in Practice: Designing and Developing Useful Language Tests* London: Oxford University Press.
- Bachman, F. (1990). *Fundamental Considerations in Language Testing*. Oxford: Oxford

- University Press.
- Bell, B. (2003). Mother-Tongue Maintenance and Maths and Science Achievement: A Contribution Towards the Formation of Multilingual Education Policies for South Africa Schools. Retrieved June 20,2012 from <http://und.ac.za/und/ling/achieve/bell-oi.htm>
- Berent, G. P. (1993). Improvement in the English Syntax of Deaf College Students. *American Annals of the Deaf*, 138(1), 55-61.
- (2001). English for Deaf Children: Assessing and Addressing Learners' Grammar Development. In D. Janakova (Ed.). Proceedings of the International Seminar on Teaching English to Secondary and Tertiary levels. Prague: Karolinum Press.
- Bergeron, J. P., Lederberg, A.R., Easterbrooks, S. R., Miller, E. M., & Connor, C. M. (2009). Building the Alphabetic Principle in Young Children Who are Deaf or Hard of Hearing. *Volta Review*, 109, 87-119.
- Borg, W.R. (1981). *Applying Educational Research: A Practical guide for teachers*. New York: Longman.
- Brabbham, E., & Lynch-Brown, C. (2002). Effects of Teacher's Reading-Aloud Styles on Vocabulary Acquisition and Comprehension of Students in the Early Elementary Grades. *Journal of Educational Psychology*, 94 (3) 465-473.
- Bodner-Johnson, B., and Sass-Leher, M. (2003). *The Young deaf or Hard of Hearing Child: A Family Centred Approach to Early Education*. Baltimore: MD Brooks'
- Brown, D., H. (2000). *Principles of Language Learning and Teaching* (4th Ed.). New York: Addison Wesley Longman Inc.
- Brown, I., and Percy,M. (Eds.) (2007). *A Comprehensive Guide to Intellectual Disability*. Baltimore: Routledge
- Cain, K., and Oakhill, J. (2008). *Comprehension problems in Oral and Written Comprehension*. New York; Guilford Press.
- Caplan,D. (1992). *Language: Structure , Processing and Disorders*. Massachusetts: MIT Press
- Caravolas, M., Hulme, C., and Snowling M., J.(2001). The Foundations of Spelling Ability: Evidence from a Three Year Longitudinal Study. *Journal of Memory and Language*, 45, 751-774.
- Chege, E., W.,(2012). Reading Comprehension and its Relationship with Academic Performance Among Standard Eight Pupils in Machakos District. M.Ed. Thesis, Kenyatta University.
- Chi, B.,S.(2000). An Analysis of Reading Comprehension of Students with Hearing Impairment. *Journal of Taiwan Education College*, 14: 155-187

- Chomsky, N. (1965). *Aspects of the theory of syntax*. Cambridge, Massachusetts: MIT Press.
- (1959). Review of Skinner's Verbal Behavior. *Language* 3, 26 -58.
- (1972). *Language and Mind*. New York: Harcourt Brace Jovanovich.
- (1981). *Lectures on Government and Binding*. Dordrecht: Foris.
- Chomsky N. and Lasnik H. (1993). The Theory of Principles and Parameters. In *Syntax: International Handbook of Contemporary Research* , ed. J. Jakobson, Berlin: Water de Gruyter.
- Cizek, G.J. and Burg, S.S. (2006). *Addressing Test Anxiety in a High Stakes Environment: Strategies for Classrooms and Schools*. London: Sage Publications Ltd.
- Cockerrill, H., and Carroll, I. (2007). *Communicating Without Speech: Practical Augmentative and Alternative Communicative for Children*. New York: Blackberry
- Colin, S., Magnan, A., Ecalle, J., & Leybaert, J. (2007). Relation Between Deaf Children's Phonological Skills in Kindergarten and Word Recognition Performance in First Grade. *Journal of Child Psychology and Psychiatry*, 58. 139-146
- Cresswell, J.W. (2009). *Research Design: Qualitative, Quantitative and Mixed Methods Approaches (3rd ed)*. London: Sage Publishers.
- Cummins, J. (1991). Interdependence of First and Second Language Proficiency in Bilingual Children. In: E. Bialystok (ed). *Language Processing in Bilingual Children*. Cambridge: Cambridge University Press.
- (2006). The Relationship Between American Sign Language Proficiency and English Academic Development. A Review of the Research (1). A Paper Presented at the Conference on Challenges, Opportunities and Choices in Educating Minority Groups students, Norway. Retrieved June 25th 2012 from <http://www.gallayuded.edu/documents/Cumminsasl-eng-pdf>.
- Davidson, M. and Hobbs, J. (2013). Delivering Reading Intervention to the Poorest Children :the Case of Liberia and EGRA-PLUS, a Primary Grade Reading Assessment and Intervention. *International Journal of Educational Development*. Vol. 33, 283-293
- DEO, Bungoma (2013). District Evaluation Tests Results: 2010-2012. DEO, Bungoma.
- DEO, Kericho (2013). District Evaluation Tests Results: 2010-2012. DEO, Kericho.
- DEO, Kilifi (2013). District Evaluation Tests Results: 2010-2012. DEO, Kilifi.
- DEO, Machakos (2013). District Evaluation Tests Results: 2010-2012. DEO, Machakos.
- DEO, Mombasa (2013). District Evaluation Tests Results: 2010-2012. DEO, Mombasa.

- DEO, Muranga (2013). District Evaluation Tests Results: 2010-2012. DEO, Muranga.
- DEO, Nakuru (2013). District Evaluation Tests Results: 2010-2012. DEO, Nakuru.
- DEO, Nandi (2013). District Evaluation Tests Results: 2010-2012. DEO, Nandi.
- Duke, N.K. & Pearson, D.P (2002). Effective Practices for Developing Comprehension: What Research has to Say About Reading Instruction. *International Reading Association, 2002, 235*
- Dyer, A., MacSweeney, M., Szezerbinski, M, & Campbell, R. (2003). Predictors of Reading Delay in Deaf Adolescents: The Relative Contributions of Rapid Automatized Naming Speed and Phonemic Awareness and Decoding. *Journal of Deaf Studies and Deaf Education, 8, 215-229..*
- Easterbrooks, S. R., Lederberg, A.R., Miller, E.M., Bergerson, J.P., & Conner, C.M. (2008). Emergent Literary Skills During Early Childhood in Children With Hearing Loss: Strengths and Weakness. *The Volta Review, 108 (2), 91-114*
- Emmorey, K. (2001). *Language, Cognition and the Brain: Insights From Sign Language Research*. Mahwah: NJ: Lawrence Erlbaum Associates.
- Fordor, J. A. and Garrette, M. F.(1966). Some Reflections on Competence and Performance. In J. Lyons and R. J. Wales (Eds.) *Psycholinguistic Papers*. Edinburgh: Edinburgh University Press.
- Frost, R. (1998). Toward a Strong Phonological Theory of Visual Word Recognition: True Issues and False Trials. *Psychological Bulletin, 123, 71-99.*
- Gallaudet Research Institute (2001). Regional and National Summary Report of data from 1999-2000 Annual Survey of Deaf and Hard-of-Hearing Youth. Washington DC: Gallaudet Research Institute, Gallaudet University.
- Global Partnership for Education (2012). All Children Reading Workshops Information Document'. UNICEF
- Goff, D.A., Pratt, C., & Ong, B. (2005). The Relations Between Children's Reading Comprehension, Working Memory, Language Skills, and Components of Reading Decoding in a Normal Sample. *Reading and Writing, 18, 583-616 doi: 10.1007*
- Goldin-Meadow, S. (A 2003). *The Resilience of Language: What Gesture Creation in Deaf Children Can Tell Us About How All Children Learn Language*. New York: Blackwell.
- Gormley, K., & Franzen, A. M. (1978). Why the Deaf Can't Read: Comments on Asking the Wrong Question. *American Annals of the Deaf, 123, 11-32.*
- Haegeman, Lilliance (1991). *Introduction to Government and Binding Theory*. M.A.:Basil Backwell.

- Hanson, V.L, Liberman, I. Y., & Shankweiler, D. (1984). Linguistic Coding in Deaf Children in Relation to Beginning Reading Success. *Journal of Experimental Child Psychology*, 37, 378-393.
- Hanson, V.L. (1982). Short-term Recall by Deaf Signers of American Sign Language: Implications of Encoding Strategy for Order Recall. *Journal of Experimental Psychology: Learning, Memory, and Cognition*, 8, 572-583
- Hanson, V.L., & Fowler, C.A (1987). Phonological Coding in Word Reading: Evidence From Hearing and Deaf Readers. *Memory and Cognition*, 15, 199-207.
- Hanson, V.L., & Lichtenstein, E. H. (1990). Short-Term Memory Coding by Deaf Signers. The Primary Language Coding Hypothesis Reconsidered. *Cognitive Psychology*, 22, 211-224.
- Harris, M. & Beech, J. (1995). Reading Development in Prelingually Deaf. *Children's Language*, 8, 181-203.
- Harris, M., & Moreno, C. (2004). Deaf Children's Use of Phonological Coding: Evidence From Reading, Spelling, and Working Memory. *Journal of Deaf Studies and Deaf Education*, 9, 253-268.
- Harris, M., & Moremo, C. (2006). Speech, Reading and Learning to Read: A Comprehension of 8-Year Old Profoundly Deaf Children With Good and Poor Reading Ability. *Journal of Deaf Studies and Deaf Education*, 11, 189-201.
- Heinneman -Gosschalk, R. (1999). The Role of Teachers, Parents and Deaf Adults in Promoting Reading in Deaf Children. PhD Thesis, University of Bristol.
- Holt, J. A. (1993). Stanford Achievement Test 6th edition: Reading Comprehension Sub-Groups Results. *American Annals of the Deaf*, 138, 172-175.
- Holt, J. A., Traxler, C.B., & Allen T.E. (1997). Interpreting the Scores: a User's Guide to the 9th edition of Stanford Achievement Test for Educators of Deaf and Hard-of-Hearing Students (Technical Report 971-1). Washington DC: Gallaudet University Research Institute.
- Hulme, C., Snowling, M., Caravolas, M., & Carroll, J. (2005). Phonological Skills are (Probably) One Cause of Success in Learning to Read: A Comment on Castles and Coltheart. *Scientific Studies of Reading*, 9, 351-365.
- Ikonta, N. R., & Madduekwe, A, N, (2005). A Study of Hearing-Impaired Students (in English) in a Conventional Secondary School in Lagos State, Nigeria. *African Journal of Special Educational Needs*. Vol.4 (1) 28-29.
- Irokaba, G. (2006). Effectiveness of the Principles of ASL/English Bilingual Philosophy in the Pedagogy in Deaf Education in Africa. Retrieved June 26, 2011 from: <http://www.pfi.uio.no.konference/LEA 2006/assets/does/Irokaba-paper.pdf>

- Ivimey, G. P. (1976). The Written Syntax of an English Deaf Child: An Exploration in Method. *British Journal of Disorders of Communication*, 11(2), 103-120.
- Izzo, A. (2002). Phonemic Awareness and Reading Ability: An Investigation With Young Readers Who are Deaf. *American Annals of the Deaf*, 147, 18-29.
- Jackson, D.W., Paul P.V. & Smith, J.C. (1997). Prior Knowledge and Reading Comprehension Ability of Deaf Adolescents. *Journal of Deaf Studies and Deaf Education*, 2, 172-184.
- Kargin, T., Guldenoglu, I. B., Miller, P., Houser, P., Rathmann, C., Kubus, O., & Superegon, E. (2012). Differences in Word Processing Skills of Deaf and Hearing Individuals Reading in Different Orthographies. *Journal of Development and Physical Disabilities*, 24, 65-83.
- Kelly, L.P. (2003). Considerations for Designing Practice for Deaf Readers. *Journal of Deaf Studies and Deaf Education*, 8, 171-186.
- Kelly R.R. Lang, H.G. & Pagharo, C.M. (2003): Mathematics Word Problem Solving for Deaf Students: A Survey of Perceptions and Practices. *Journal of Deaf Studies and Deaf Education*, 9 -119.
- Kelly R.R., & Mousley, K. (2001). Solving Word Problems: More Than Reading Issues for Deaf Students. *American Annals of the Deaf*, 146, 251 – 262.
- Kelly, V. (1995). Processing of Bottom-up and Top-down information by Skilled and Average Deaf Readers and Implication for Whole Language Instruction. *Exceptional Children*, 61, 334.318-
- KIE (2004a). *Primary Education Syllabus: English*. Nairobi: KIE.
- (2004b). *Primary Education Syllabus: Kenyan Sign Language*, KIE
- (2006). *A Guide for Curriculum Evaluators* Nairobi: KIE.
- (1978). *Education of the Hearing Impaired: Provisional Curriculum and Guidelines..* Nairobi: KIE.
- Kenya Deaf Resource Centre (2009). Teaching reading to deaf children. Retrieved August 24th 2010 from <http://kenyadeafnet.org/contact/view/159/348>.
- Kenya National Bureau of Statistics (2010). *Kenya Population and Housing Census, 2009*. Nairobi: Government Printers.
- Kenya Society for Deaf Children (2006). *Report of the Education of the Deaf in Kenya*. Nairobi: KSDC
- Klauda, S. (2009). The Role of Parents in Adolescents' Reading Motivation and Activity.

- Educational Psychology Review*, 21, 323–363’
- Kochung, E.,J.(2000). *Support Based Screening Procedure for Preschool in Kenya*. Joensuu: University of Joensuu Publications in Education
- Koo, D., Crain, K., LaSasso, C., & Eden, G. (2008). Phonological Awareness and Short Term Memory in Hearing and Deaf Individuals of Different Communication Backgrounds. *Annals of the New York Academy of Science*, 1145, 83-99
- Kothari, C.R. (2011). *Research Methodology: Methods and Techniques*. New Delhi: New Age International (P) Ltd.
- Krakow, R.A., & Hanson, V. L (1985). Deaf Signers and Serial Recall in the Visual Modality: Memory for Signs, Fingerspelling, and Print. *Memory & Cognition*, 13, 265-272.
- Krashen, S.D. (1985). *The Input Hypothesis*. London: Longman.
- Krejcie, R. V. & Morgan, D.W. (1970). Determining Sample Size for Research Activities. *Educational and Psychological Measurement*. 30, 607-610.
- Kyle, F., E. and Harris, M. (2006). Concurrent Correlates and Predictors of Reading and Achievement in Deaf and Hearing children. *Journal of Deaf Studies and Deaf Education*, 11, 273-288.
- Kyle, F. E., & Harris, M. (2010a). Longitudinal Patterns of Emerging Literacy in Beginning Deaf and Hearing readers. *Journal of Deaf Studies and Deaf Education*, 16 (3), 289-304
- Kyle, F.E., & Harris, M (2010b). Predictors of Reading Development in Deaf Children: A Three Year Longitudinal Study. *Journal of Experimental child Psychology*, 107, 229-243.
- Kyle, F.E. & Haris, M. (2006). Concurrent Correlates and Predictors of Reading and Spelling Achievement in Deaf and Hearing School Children. *Journal of Deaf and Deaf Education*, 1,273-288.
- Landy S.H. & Smith K. E. (2006). The Influence of Parenting on Emerging Literacy Skills. In: D. Dickinson & S. Neuman (Eds), *Handbook of Early Literacy Research*, 2, 135-145
- Learning Metrics Taskforce (2013). *Towards Universal Learning: A Global Framework for Measuring Learning*. Washinton DC: UNESCO Institute for Statistics/Brookings Institution.
- Lederberg, A. R., Schick, B., & Spencer, P.E. (2012). Language and Literacy Development of Deaf and Hard of Hearing Children: Success and Challenges. *Development Psychology*, 49 (1), 15-30.
- Lederberg, A R., & Spencer, P.E. (2001). Vocabulary Development of Deaf and Hard-of-Hearing Children. In: M.D. Clark, M. Marchark, & M. Karchmer (Eds). *Context, Cognition and Deafness*. Washington, D.C.: Gallaudet University Press.

- Leigh, G., Newall, J.P., & Newall, A.T. (2010). Newborn Screening and Earlier Intervention With Deaf Children: Issues for the Developing World. In M. Marschark & P. Spencer (Eds.), *The Oxford handbook of deaf studies, language and education, Volume 2*. New York, NY: Oxford University Press.
- Lewis, I. and Bagree, S . 2013). Teachers for All: Inclusive Teaching for All Children with Disabilities. Brussels:International Disability and Development Forum
- Lillo-Martin,D.C., Hanson, V.I., & Smith,S.T. (1992). Deaf Readers' Comprehension of Relative Clause Structures. *Applied Linguistics 13(1); 13-30*.
- Luckner, L. J. Handley, C. (2008). A Summary of the Reading Comprehension Research Undertaken with Students Who are Deaf and Hard of Hearing. *American Annals of the Deaf, Vol. 153(1)*.
- Lule, D. (2010). Early Intervention Provision: Gaps in Meeting Communication Needs of Preschool Deaf Children and Their Families in Kampala District, .Uganda. M. Ed. Thesis, Maseno University.
- Maina E.N. (2009). Factors influencing performance of deaf students in mathematics in Kenya Certificate of Secondary Education, Kenya. Med. Special Ed. Thesis, Maseno University
(2015). Teaching And Learning of English Reading Comprehension: Implication on Academic Achievement of Deaf Students I Secondary Schools in Kenya. PhD Thesis, Maseno University.
- Makumi, E,C.N., (1995). A Study of Special Education Programme in Kenya with Special Emphasis on the Hearing Impaired and Causes of their Semi-illiteracy. M.Ed. Thesis, Kenyatta University.
- Marschark, M., & Knoors, H. (2012). Educating Deaf Children: Language, Cognition and Learning. *Deafness and Education International, 14, 137-161*.
- Marschark, M., O'Neill, R., & Arendt, J. (2014). Achievement and Opportunities for Deaf Students in the United Kingdom: From Research to Practice - Summary Report. Edinburgh: University of Edinburgh Centre for Education Research & Partnership and National Technical Institute of the Deaf.
- Marschark, M., & Lee, C. (2014). Navigating Two Languages in the Classroom: Goals, Evidence and Outcomes. In M. Marschark, G. Tang, and H. Knoors (Eds.), *Bilingualism and bilingual deaf education* . New York, NY: Oxford University Press.
- Mayberry, R.; Giudie, A., and Lieberman, A. (2011). Reading Achievement in Relation to Phonological Coding and Awareness in Deaf Readers: A Meta-Analysis. *Journal of Deaf Studies and Deaf Education, 16, 164-188*.
- Mayberry, R. I. (2002). *Cognitive Development in Deaf Children: the Interface of Language and Perception in Neuropsychology*. Montreal: Elsevier Science B-V.

- Mayberry, R. I., and Lock, E. (2003). Age Constraints on First and second language acquisition: Evidence for Linguistic Plausity and Epigenesis. *Brain and Laguage*, 87, 369-384
- McCormick, S. (2007). *Instructing Students Who Have Literary Problems (5th ed.)*. Upper Saddle River, New Jersey: Pearson Merrill Prentice Hall.
- Meadow, K.P. (1980). *Deafness and Child Development*. London: Edward Arnold
- Meadow-Orlans, K.; Spencer, P., & Koester, L. (2004). *The world of deaf infants: A longitudinal study*. New York: Oxford University Press.
- Merrills, J. D., Underwood, G., & Wood, D. J.(1994). The Word Recognition Skills of Profound Prelingually Deaf Children. *Journal of Psychology*, 12, 365-384.
- Migaard, K., & Mingat, A.(2012). *Education in Sub-Saharan Africa: A Comparative Analysis*. Washington DC: World Bank.
- Miller, P. (2000). Syntactic and Semantic Processing in Hebrew Readers With Pre-Lingual Deafness. *American Annals of the Deaf*, 145, 436-451.
- (2004). Processing of Written Words by Individuals With Prelingual Deafness. *Journal of Speech, Language, and Hearing Research*, 47, 979-98
- (2005). Changes in the Processing of Letters, Written Words, and Pseudo-homophones: A Comparison of Fifth Graders and University Students. *Journal of Genetic Psychology*, 164, 407-434.
- (2006a). What the Processing of Real Words and Pseudo-homophones Tell About the Development of Orthographic Knowledge in Prelingually Deafened Individuals. *Journal of Deaf Studies and Deaf Education*, 11, 21-38.
- (2006b). What the Visual Word Recognition Skills of Prelingually Deafened Readers Tell About Their Reading Comprehension Problems. *Journal of Development and Physical Disabilities*, 18, 91-121.
- (2007a). The Role of Phonology in the Word Decoding Skills of Poor Readers: Evidence from Individuals With Pre-lingual Deafness or Diagnosed Dyslexia. *Journal of Developmental and Physical Disabilities*, 19, 385-408.
- (2007b).The Role of Spoken and Sign Language in the Retention of Written Words by Prelingually Deafened Native Signers. *Journal of Deaf Studies and Deaf Education*, 12, 184-208..
- (2010a). Phonological, Orthographic, and Syntactic Awareness and Their Relation to Reading Comprehension in Prelingually Deaf Individuals: What Can We Learn From Skilled Readers? *Journal of Development and Physical Disabilities*, 22, 549-580.

- 2010b). Similarities and Differences in the Processing of Written Text by Skilled and Less Skilled Readers With Pre-lingual Deafness. *Journal of Special Education*. Advance online publication. Doi: 10.1177/0022466910386790
- Miller, P. & Clark, M.D. (2011). Phonological Awareness is Not Necessary to Become a Skilled Deaf Reader (Review). *Journal of Development and Physical Disabilities*, 23, 459-479.
- Miller,P.;Kargin,T.;Guldennoglu,B.; Rathmann,C.; Kubus, O.; Hauser, P.& Spurgeon, E. (2012). Factors Distinguishing Skilled and Less Skilled Deaf Readers: Evidence from Four Orthographies. *Journals of Deaf and Education* Advanced Access published September 16, 2012. Downloaded from <http://jdsde.oxfordjournals.org/> by guest on March 5, 2015.
- MOE (2013). Schools and Units for the Deaf. Information Handout, Directorate of Quality Assurance and Standards, Ministry of Education
- (1987). *Report of the Education of the Deaf in Kenya Evaluation Committee*..Nairobi: MOE.
- Ministry of State for Planning, National Development and Vision 2030. (2013). *Second Medium Term Plan 2013–2017* Ministry of State for Planning, National Development and Vision 2030.
- Moeller, M.P., Tomblin, J. B., Yoshinaga-Itano, C., Conner C.M., & Jerger, S. (2007). Current State of Knowledge: Language and Literacy of Children With Hearing Impairment. *Ear and Hearing* 28 (6), 740-753
- MOEST (2005). *Kenya Education Sector Support Programme 2005 – 2010: Delivering Quality Education and Training to All Kenyans*. Nairobi: MOEST.
- (2003). Report of the Taskforce on Special Needs Education: Appraisal Exercise. Nairobi: MOEST.
- Monreal, S.T. & Hernandez, R.S. (2005). Reading levels of Spanish Deaf Students. *American Annals of the Deaf*, 150, 379-387.
- Morgan, P., Fuchs, D., Compton, D.L., Cordray, D.S. & Fuchs, L.S. (2008). Does Early Reading Failure Decrease Children’s Reading Motivation; *Journal of Learning Disabilities*, 41, 387-404.
- Mugenda, O.N. & Mugenda, A.G. (2003). *Research Methods: Quantitative and Qualitative Approaches*. Nairobi: African Centre for Technology Studies Press.
- Musselman, C. (2000). How Do Children Who Can’t Hear Learn to Read an Alphabetical Script? A Review of the Literature on Reading and Deafness. *Journal of Deaf Studies and Deaf Education*, 5, 9-31.

- National Educational Association (NEA) (1960). Small-Sample Techniques. *The NEA Research Bulletin*, 38, 99.
- National Reading Panel. (2000). Teaching Children to Read: An Evidence Based Assessment of the Scientific Research Literature on Reading and Its Implications for Reading Instruction: Reports of the Group. Washington DC: National Institute of Child Health and Human Development.
- Nielsen, D.C., and Leutke-Stahlman, B. (2002). Phonological Awareness: One Key to the Reading Proficiency of Deaf Children. *American Annals of the Deaf*, 147, 11-19.
- Niparko, J.K., Tobey, E.A. Thal, D. J., Eisenberg, L.S., Wang, N-Y., Quittner, A.L., Fink, N.E. (2010). Spoken Language Development in Children Following Cochlear Implantation. *JAMA*, 303 (15), 1498-1506.
- Obondo, M.A.(2012). Factors Influencing Pupils' Achievement in English Composition in Public Primary Schools in Bondo District. Kenya. M.Ed. Thesis, Maseno University.
- Ochwal, A.A. (2008). Communication Strategies Used by Non-Specialized Teachers of the Deaf in Nyanza Province, Kenya. M.Ed. Thesis, Maseno University.
- Ogada, R. (2012). Challenges of Writing English Composition Among Class Seven Learners With Hearing Impairment in Nyanza Province, Kenya. M.Ed. Thesis, Maseno University.
- Okoth-Okombo; Akaranga, W; Mweri, J.G; Ogutu, T.A. (2006). *Introduction to Theory and Skills of Teaching Kenyan Sign Language: A Handbook For Teachers*. Nairobi: KSDC.
- Owino, F.R. (2002). A Study of the Competence in English of Primary Teacher Trainees in Kenya.. PhD Thesis, University of Western Cape.
- Parault, S.J. & Williams, H.M. (2010). Reading Motivation, Reading Amount and Text Comprehension in Deaf and Hearing Adults. *Journal of Deaf Studies & Deaf Education* 15:2.
- Paul P. (2001). *Language and deafness* (3rd ed.). San Diego, C.A.: Singular.
- Paul, P. V., Wang, Y., Trezek, B.J., & Luckner, J. L., (2009). Phonology is Necessary, But Not Sufficient: A Rejoinder. *American Annals of the Deaf*, 154, 346-356.
- Payne, D.,(1992). *Measuring and Evaluating Educational Outcomes*. New York: Maxwell Macmillan International.
- Perfetti, C.A., & Sandak, R. (2000). Reading Optimally Built on Spoken Language: Implications for Deaf Readers. *Journal of Deaf Studies and Deaf Education*, 5, 32-50.

- Pepela, S., B.(2014). Factors Affecting Academic Performance in Public Primary Schools in Lukuyani District, Kenya. M.Ed. Thesis, Maseno University.
- Powers, D & Leigh, G (2000). Principles and Practices of Literacy Development For Deaf Learners; A Historical Overview. *Journal of Deaf Studies and Deaf Education*, 5,3-8.
- Powers, S. (2002). *The Educational Achievements of Deaf School Learners*. Birmingham: University of Birmingham:
- Pressley, M., Wood, E., Woloshyn V.E., Martin, V., King, A., and Menke, D. (1992). Encouraging Mindful Use of Prior Knowledge: Attempting to Construct Explanatory Answers Facilitating Learning. *Educational Psychologist*, 27, 91-110.
- Pudden, C. (2005). *Inside Deaf Culture*. Cambridge: Massachusetts University Press.
- Qi, S. & Mitchell, R. F. (2012). Large-Scaled Achievement Testing of Deaf and Hard-of-Hearing Students. *Journal of Deaf Studies and Deaf Education*, 17, 1-18.
- Quigley, S. P. & King (1980). Syntactic Performance of Hearing Impaired and Normal Hearing Individuals. *Applied Linguistics*, 1, 329-356.
- Quigley, S., Power, D., & Steinkamp, M. (1977). The Language Structure of Deaf Children. *Volta Review*, 79, 73-84.
- Quigley, S.P., Wilbur, R.B., & Montanelli, D.S. (1974). Question Formation in the Language of Deaf Students. *Journal of Speech and Hearing Research*, 17, 699-713.
- Richards, J., and Rodgers (1986). *Approaches and Methods of Language Teaching*. Cambridge: Cambridge University Press.
- Riemsdijk, Henk Van, and William, Edwin (1986). *Introduction to the Theory of Grammar*. Cambridge, M.A: MIT Press.
- ROK (2005). Sessional Paper No. 1 of 2005 on Policy Framework For Education, Training and Research: Meeting the Challenges of Education, Training and Research in Kenya in the 21st Century. Nairobi: Government Printer.
- (2008a). *Vision 2030*. Nairobi: Government printer
- (2008b). Millennium Development Goals: Status Report for Kenya -2007. Nairobi: Government Printer.
- (1999). *Totally Integrated Quality Education and Training (TIQUET); Report of the Commission of Inquiry into the Education System in Kenya in the 21st Century*. Nairobi: Government Printer.
- (1976) *Report of the National Committee on Educational Objectives and Policies*. Nairobi: Government Printer

- Rydberg, E., Gellerstedt, L.C., & Danermark, B. (2009). Toward an Equal Level of Educational Attainment Between Deaf and Hearing People in Sweden? *Journal of Deaf Studies and Deaf Education, 14*, 312-323.
- Sandra, B. (2005). Language and Literary Development in Children Who are Deaf or Hearing Impaired. Kappa Delta Pi: International Society in Education
- Shaver, D., Marschark, M., Newman, L., and Marder, C. (2014). Who is Where? Characteristics of Deaf and Hard-of-Hearing Students in Regular and Special Schools. *Journal of Deaf Studies and Deaf Education, 19*, 203-219.
- Schirmer, B.R. (2003): Using Verbal Protocols to Identify the Reading Strategies of Students Who Are Deaf. *Journal of Deaf Studies and Deaf Education, Volume 8, Issue 2; 157-170*
- Schirmer, B.R. & McGough (2005). Teaching Reading to Children Who Are Deaf: Do the Conclusions of the National Panel Reading Panel Apply? *Review of Educational Research, 75*, 83-117.
- Scott, K. Liddell (2003). *Grammar, Gesture and Meaning in American Sign Language*. Cambridge. Cambridge University Press.
- Shagga, D.O.A.,(2012). The Effectiveness of Using Computerized Educational Games on Developing Aspects of English Grammar for Ninth Graders in Gaza Governorates. M.Ed. Thesis, University of Gaza, Gaza.
- Spencer, L.H., & Hanley, J.R. (2003). The Effects of Orthographic Consistency on Reading Development and Phonological Awareness: Evidence From Children Learning to Read in Wales. *British Journal of Research in Reading, 27*, 1-14.
- Spires, H.A & Donley, J. (1998). Prior Knowledge Activation: Inducing Engagement With Informal Texts. *Journal of Educational Psychology, 90*, 249-260.
- Stern, A., & Goswami, U. (2000). Phonological Awareness of Syllables, Rhymes and Phonemes in Deaf Children. *Journal of Child Psychology and Psychiatry, 41*, 609-626.
- Stoke, W.C. (2005). Sign Language Structure: An Outline of the Visual Communication System of the American Deaf. *Journal of Deaf Studies and Deaf Education, 10*, 3-37.
- Thorndike, R., L. and Hagen E., P. (1977). Measurement and Evaluation in Psychology and Education, 4th ed.. New York: John Wiley & Sons.
- Thoutten, E.,(2006). Cochlea Implanted Pupils in Scottish Schools: 4-Year School Attainment Data (2000-2004). *Journal of Deaf Studies and Deaf Education, 11*, 171-188.
- Transler, C., Leybaert, J., and Gombert, J.E. (1999). Do Deaf Children Use Phonological Syllables Are Reading Units? *Journal of Deaf Studies and Deaf Education, 4*, 124-143.

- Traxler, C.B. (2000). The Stanford Achievement Tests, 9th Edition; National Monitoring and Performance Standards for Deaf and Hard of Hearing Students. *Journal of Deaf Studies and Deaf Education* ' 5,337-348.
- Trek, B, J., & Malmgren, K. W. (2005). The Efficacy of Utilizing a Phonics Treatment Package With Middle School Deaf and Hard of Hearing Students. *Journal of Deaf Studies and Deaf Education*, 10, 256-271.
- UNESCO, (2015). *Teachers and Educational Quality: Monitoring Global needs for 2015*. Montreal: Montreal Institute of Statistics.
- (2010). *Education for All Global Monitoring Report 20009/2010: Reaching the Marginalized*. Paris: UNESCO Publishing
- (2014) *Education for All Global Monitoring Report- 2013/2014*. Paris: UNESCO Publishing.
- Uwezo Kenya (2013). Are Our Children Learning? Annual Learning Assessment Report. Nairobi: Uwezo.Kenya
- Verhoeven, L.(2000). Components in Early Second Language Reading and Spelling. *Scientific Studies of Reading* , 4(4) 313-330
- Wauters, L.N., Van Bon, W.H.J, Tellings, A.E.J.M (2006). Reading Comprehension of Dutch Deaf Children. *Reading and Writing*, 19, 49-76.
- Wauters, N. L., Van Bon, W.H.J., Tellings, A.E.J. M., & Van Leeuwe, J.F.J.(2006). In Search of Factors in Deaf and Hearing Children' Comprehension. *American Annals of the Deaf* 153(3), 234-233.
- Wauye, S. ((2004). Factors that Affect Student Performance in English in Some Selected Secondary Schools in Siaya District. M.Ed. Thesis, Kenyatta University
- Weizerman, Z.O. & Snow, C. E.(2001). Lexical Input as Related to Children's Vocabulary Development: Effects of Sophisticated Exposure and Support for Meaning. *Developmental Psychology*, 37, 265-279.
- Wendy, S. and Lillo-Martin, D. (20060). *Sign Language and Linguistic Universals*. Cambridge: Cambridge University Press.
- Wilbur, R.B. (2000). The Use of American Sign Language to Support the Development of English and Literacy. *Journal of Deaf studies and Deaf Education*, 5:81-103
- Wilbur, RB & Quigley S.P.,(1975). Syntactic Structures in the Written Language of Deaf Children. *Volta Review*, 77(3), 194-203.
- William, C (2012). Promoting Vocabulary Development in Young Children Who are Deaf and Hard-of-Hearing: Translating Research into Practice. *American Annals of the deaf*, Winter, 2012.

Yerker, A.,(1994). Deaf People as a Linguistic Minority. In A. Inger and K. Hyltenstam (1994). *Bilingualism in Deaf Education: International Studies on Sign Language and Communication of the Deaf*. Vol.7: Hamburg: Signum.

Zevenbergen, R., Hyde, M. and Power, d. (2000). Language, Arithmetic Word Problems and Deaf Students: Linguistic Strategies used by Deaf Students to solve Tasks. *Mathematics Education Research Journal*, 13, 3, 204-211

APPENDIX 1: Sub-Test 1:Class I Level English Grammar Test

DATE _____ **DURATION: 1 hour.**

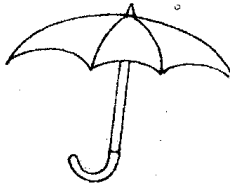
NAME: _____ **SCHOOL** _____ **CLASS** _____

INSTRUCTIONS

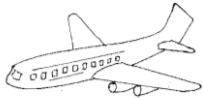
- 1. Write your name, the name of your school and your class.**
 - 2. Read each question carefully before writing the answer.**
 - 3. Answer all the questions.**
-

Write the missing words.

1. This is _____ umbrella.



2. This is _____ aeroplane.



3. This is _____ pot



4. This is _____ shoes



Write in plural.

Example: book – books

5. cat _____

6. dog _____

Write in past tense.

Example : walk – walked

7. push _____

8. play _____

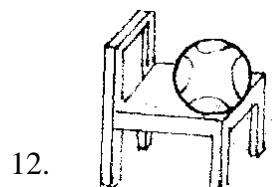
Complete the sentences. Use the words from the box.

Yesterday	tomorrow	slowly	under	
------------------	-----------------	---------------	--------------	--

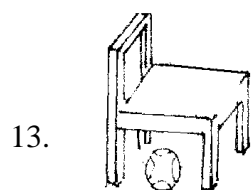
9. The dog is running _____

10. The children walked to the shop _____

11. The teacher will go to Nairobi _____



The ball is _____ the chair.



The ball is _____ the chair.

Complete the sentences. Use the words from the box.

I	me
----------	-----------

14. _____ am happy

15. Please give _____ the pen

Complete the sentences. Use the words from the box.

green	white	who
--------------	--------------	------------

16. The colour of milk is _____

17. The colour of grass is _____

18. A person _____ teaches children is called a teacher.

Complete the sentences. Use the words from the box.

small	big	much	many	and		my
--------------	------------	-------------	-------------	------------	--	-----------

19. This is _____ book

20. How _____ brothers do you have?

21. How _____ money do you have?

22.



This is a _____ ball

23.

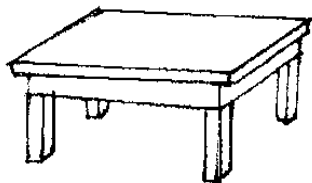


This is a _____ ball

24. I have a banana _____ a mango.

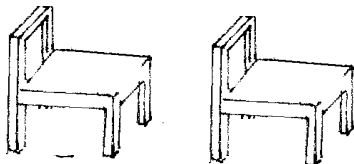
Answer these questions in full sentences.

25.



What is this?

26.



What are these?

27.



What is the girl doing?

28.



What are they doing?

Write these words in plural

1. Cat →
2. Man →
3. Knife →
4. Mango →
5. Ox →
6. Tooth →
7. Sheep →
8. Family →

Write the missing words. Use the words from the box

Biggest	big	bigger
----------------	------------	---------------

9.  _____  _____  _____

Write these sentences correctly

10. Milk the cat drinking is →
11. To school the children going are →

Fill in the missing words. Use the words from the box.

nothing	anything	nobody
----------------	-----------------	---------------

12. _____ is making noise
13. She has _____ to say
14. Mother doesn't have _____ to cook

Fill in the missing words. Use the words from the box.

bigger	used for	but	looks like	because	although	good
---------------	-----------------	------------	-------------------	----------------	-----------------	-------------

15. The baby is crying _____ she is hungry.
16. A knife is _____ cutting.
17. _____ the bus is full, we can still go in.
18. Father likes tea _____ mother likes milk.
19. Sometimes a rope _____ a snake.
20. Tom is _____ football.
21. A dog is _____ than a cat.

Complete the questions correctly. Use the words from the box.

keep her books?
seen the thief?
your mother's name?
sitting?

22. Where was the visitor _____

23. Where does the teacher _____
24. Have you _____
25. What is _____

Fill in the missing words. Use the words from the box.

going to	want to	have
-----------------	----------------	-------------

26. I _____ go to Nairobi in the afternoon.
27. I _____ seen the book.
28. I am _____ buy a new pen today.

Make sentences. Use these words

29. go →
30. going →
31. goes →
32. Went →

Write these sentences in plural.

33. This is a pen _____
34. That is a dog _____
35. I am a baby _____
36. The child is hungry _____
37. Where is the book? _____

APPENDIX 3 : Sub-Test 3:Class III Level English Grammar Test

DURATION: 1 Hour **NAME:** _____

SCHOOL _____ **CLASS** _____

INSTRUCTIONS

- 1. Write your name, the name of your school and your class.**
 - 2. Read each question carefully before writing the answer.**
 - 3. Answer all the questions.**
-

Complete the sentences correctly. Use the words from the box.

gone	is going	went	goes	will go	going
-------------	-----------------	-------------	-------------	----------------	--------------

1. The boy _____ to school now.
2. The boy _____ to school every day.
3. The boy _____ to school yesterday.
4. The boy _____ to school tomorrow.
5. The boy has already _____ to school.
6. The boy has been _____ going to school.

Complete the sentences correctly. Use the words from the box.

mine	me	my	myself
-------------	-----------	-----------	---------------

7. This is _____ book.
8. I bought the book_____.
9. My mother gave _____ the money to buy the book.

10. I know the book is _____.

Complete these sentences correctly. Use your own words.

11. The stone is _____ heavy for the boy _____ carry.

12. The visitors will come either on Monday _____ on Tuesday

13. Show me _____ to ride a bicycle

Complete the sentences. Use the words from the box.

because	if	unless	although
----------------	-----------	---------------	-----------------

14. The policemen can't catch the thief _____ they run faster.

15. The children continued playing _____ it was raining.

16. The child is crying _____ she is hungry.

17. The glass will break _____ it falls down.

Complete the sentences. Use the words from the box.

when	who	why	which	how	where
-------------	------------	------------	--------------	------------	--------------

18. This is the place _____ we got off the bus.

19. He is the boy _____ stole the pen.

20. This is the bag _____ got lost.

21. Tell me _____ the baby is crying

22. She is happy _____ she is with her mother.

23. A person _____ makes chairs and tables is called a carpenter.

Complete the sentences correctly. Use the words from the box.

this		but	perhaps
-------------	--	------------	----------------

24. Although the box is _____ heavy, the man can carry it.
25. They tried to catch the thief _____ failed.
26. _____ my book is in your bag.

Complete the sentences correctly. Use the words from the box.

because	some	any	may
----------------	-------------	------------	------------

27. He _____ be sick.
28. We don't have _____ money.
29. Please give me _____ water.

Complete the sentences correctly. Use the words from the box.

are	able to	have to
------------	----------------	----------------

30. You _____ do your homework.
31. Mary is not _____ come to class today.

Join the sentences correctly. Use the words in the box

which	who	and
--------------	------------	------------

Example : We threw away the plates. The plates were broken

We threw away the plates which were broken

32. We watered the flowers. We planted the flowers last week

33. We collected the rubbish. We threw the rubbish away.

34. The policemen arrested the man. The man stole the cow.

APPENDIX 4: Sub-Test 4:Class I LEVEL Reading Comprehension Test

DURATION: 30 MINUTES **NAME:** _____

SCHOOL _____ **CLASS** _____

INSTRUCTIONS

- 1. Write your name, the name of your school and your class.**
 - 2. Read each question carefully before writing the answer.**
 - 3. Answer all the questions.**
-
-

Draw the pictures

1. ball
2. car
3. flower

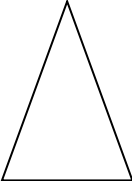
Write in numbers.


Example: Twenty seven _____ 27

4. Eighty two _____

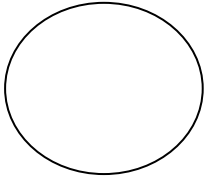
Write the names of these shapes. Choose the correct words from the box.

oval	triangle	triangle	circle
------	----------	----------	--------

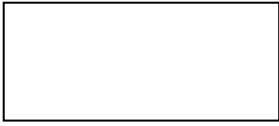
5.  _____

6.  _____

7.

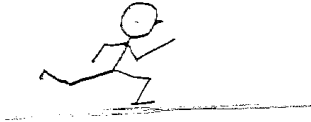


8.



- **This is a big tree**
- **This is a small tree.**
- **The boy is running.**
- **The boy is sitting down.**

9.



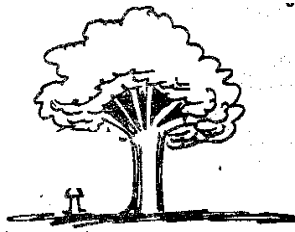
10.



11.



12.



APPENDIX 5: Sub-Test 5:Class II Level Reading Comprehension Test

DATE _____ **DURATION: 30 MINUTES**

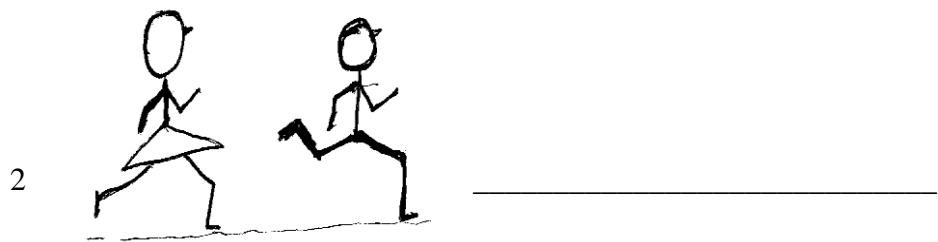
NAME: _____ **SCHOOL** _____ **CLASS** _____

INSTRUCTIONS

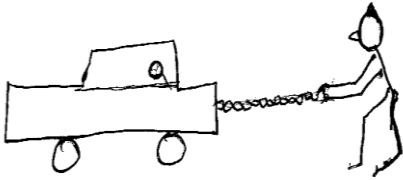
- 1. Write your name, the name of your school and your class.**
 - 2. Read each question carefully before writing the answer.**
 - 3. Answer all the questions.**
-

Match the sentences in the box to the pictures.

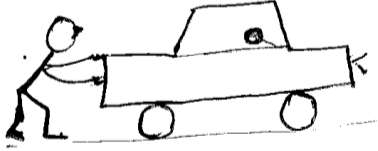
The girl is chasing the boy.
The boy is chasing the girl.
The boy is pushing a car.
The boy is pulling a car



3



4



Write in number.

Example: sixty four.... 64

5. Eight hundred and twenty five →

APPENDIX 6: Sub-Test 6: Class III Level Reading Comprehension Test

DURATION: 30 MINUTES

DATE _____

NAME: _____ **SCHOOL** _____ **CLASS** _____

INSTRUCTIONS

1. Write your name, the name of your school and your class.
 2. Read each question carefully before writing the answer.
 3. Answer all the questions.
-
-

Read this story carefully then answer the questions..

Rono is in Class 4 at Garissa Primary School for the Deaf. He is 10 years old. He is in the same class as his friend, Khalid. The teachers like them because they are hardworking pupils. When they grow up, Rono would like to be a doctor while his friend would like to be a nurse.

1. How old is Rono? _____
2. Where does Rono go to school? _____
3. Why do the teachers like Rono and Khalid? _____
4. In which class is Khalid? _____
5. What is this story about? _____

APPENDIX 7: Sub-Test 7:Class I Level Expressive Written English Test

DATE _____ **DURATION: 30 MINUTES**

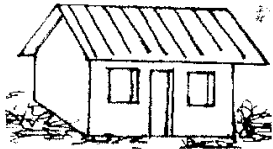
NAME: _____ **SCHOOL** _____ **CLASS** _____

INSTRUCTIONS

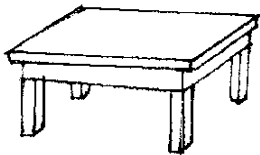
- 1. Write your name, the name of your school and your class.**
 - 2. Read each question carefully before writing the answer.**
 - 3. Answer all the questions.**
-
-

Write the names.

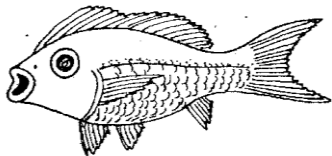
1.



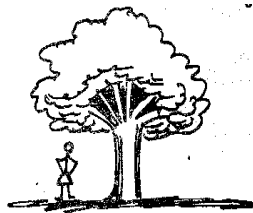
2.



3.



4.



Write the missing letters.

5. A, B, C, D, E, _____, G, H, I, J, K, L, _____, N, O, P, Q, R, _____, T, U, V, W, _____ Y, Z.

Write this number in words.

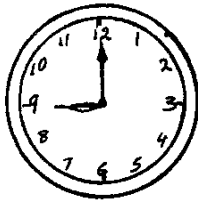
Example: 12 _____ Twelve

6. 99 _____

Write the time. Use the words from the box

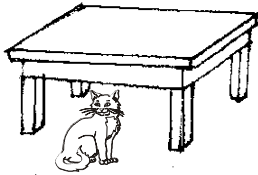
half past	o'clock
-----------	---------

7.



The time is _____

8.



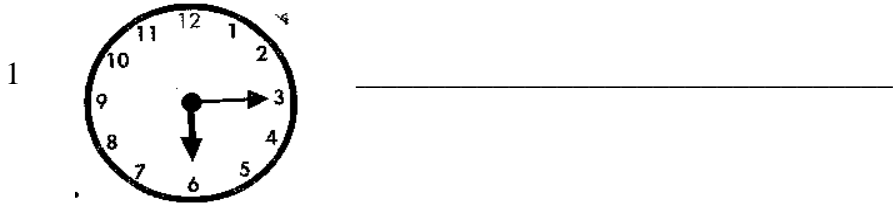
Where is the Cat?

9. How old are you? _____

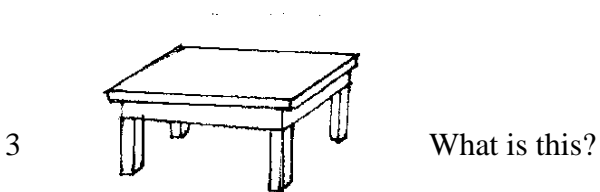
Appendix 8: Sub-Test 8: Class II Level Expressive Written English

Write the time. Choose the sentences from the box.

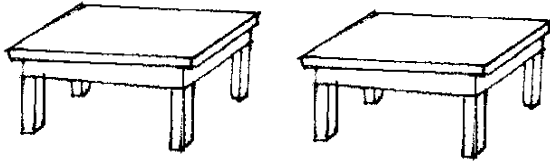
- **The time is a half past six o'clock**
- **The time is quarter past six o'clock**
- **The time is quarter to eleven o'clock**
- **The time is six o'clock**



Answer these questions. Use full sentences.



4



. What are these?

Write in words.

Example: 83 Eighty three →

5 123

APPENDIX 9: Sub-Test 9: Class III Level Expressive Written English Test

DURATION: 30 MINUTES

DATE _____ NAME: _____ SCHOOL _____ CLASS _____

INSTRUCTIONS

- 1. Write your name, the name of your school and your class.**
- 2. Read the guided composition below carefully before filling in the missing parts..**
- 3. The guided composition in is about you and a friend of your choice.**

Myself

My name _____. I am _____ years old. I go _____ Primary School for the Deaf. I
am
in Class _____. My best friend is called _____ is also in Class _____. I
like _____ because _____. When we grow
up, I would like to be a _____ and my friend would like to be a _____.

APPENDIX 10: Interview Schedule For Class Three English Teachers

NAME OF CLASS TEACHER: _____ SCHOOL: _____ DATE:.....

CLASS ROLL: GIRLS _____ BOYS _____ TOTAL: _____

Please fill in the following background information about each child in your class as accurately as possible:

Name of pupil	Sex: 1) Male 2)Female	Present age: 1) 9 years 2) 10 years 3) 11 years 4) 12 years 5) Others (specify)	Age when first admitted in school: 1) 3 years 2) 4 years 3) 5 years 4) Others (specify)	Class first admitted: 1)Daycare 2)Pre-P1 3) PRE-P2 4) Others (specify)	Mode(s) of communication known by the learner when first admitted in school 1) English 2) Kiswahili 3) Kenyan Sign Language 4) Ethnic language 5) Others (specify) 6) Gestures and Body language 7) None	Age at onset of deafness: 1) Born deaf 2) 3 months 3) 6 months 4) 1 year 5) 3 years 6) Others (specify)	Degree of hearing loss: 1) Mild 2) Moderate 3) Severe 4) Profound	Mode(s) of communication the learner uses at home: 1.Kenyan Sign Language 2.English 3.Gestures and body language 4.Others (specify)	Mode (s) of communication currently known by the learner: 1)English 2)Kiswahili 3)Kenyan Sign Language 4) Ethnic language 5)Others (specify) 6) Gestures and Body Language 7) None	Mode of communication the learner uses in class: 1)English 2)Kiswahili 3)Kenyan Sign Language 4)Ethnic Language 5)Gestures and Body Language 6)Others (specify) 7) None	Mode of communication learner uses outside class: 1)English 2)Kiswahili 3)Kenyan Sign Language 4)Gestures and Body Language 5)Ethnic language 6)Others (specify) 7) None	Hearing status of the mother/ father: 1)Deaf 2)Hearing 3) Not applicable
L 1												
L 2												
L 3												
L 4												
L												
L6												

APPENDIX 11: Document Analysis Schedule For Class I Level English Grammar Test

SKILL TESTED	SUB – SKILL (S)	Does the learner have the skill/ sub-skill? 1. Yes 2. No	Type of Error(s)	Examples of error(s)
(A) VOCABULARY 1) Determiners	i) Use of the indefinite article (an)			
	ii) Use the indefinite article (a)			
2) Grammatical categories a) Adjectival	Use of quantitative adjectival ‘a pair of’			
	Use of descriptive adjectival relating to colour ‘white, green’			
	Use of descriptive adjectival relating to size ‘big, small’			
	Use of possessive adjectival ‘my’			
	Use quantitative adjectival relating to countable nouns ‘many’			
	Use of quantitative adjectival relating to uncountable noun ‘much’			
	Use of relative adjectival ‘who’			
b) Adverbials	Use of adverbial of manner ‘slowly’			
	Use of adverbial of time – future ‘tomorrow’			
	Use of adverbial time – past ‘yesterday’			
c) Prepositions	Use of prepositions ‘on, under’			
d) Proforms	Use of the personal pronoun – subject ‘I’			
	Use of personal pronoun object ‘me’			
e) Conjunction	Use of the connecting conjunction ‘and’			
B) LANGUAGE STRUCTURE a) Plural forms	Mastery of plural form of words ending with the plural marker ‘-s’			
b) Tense: Regular past tense	Mastery of simple past tense of words ending with the plural marker ‘- ed’			
c) Sentence construction	i) Construction of a grammatically correct sentences in singular using the sentence pattern ‘This/ That is +article + object			
	ii) Construction of grammatically correct sentence in plural using the sentence pattern. ‘These/Those+ auxiliary + object.			
	iii) Construction of a grammatically correct simple sentence containing a transitive verb using the following pattern ‘Subject + auxiliary + transitive verb + object’			

	iv) Construction of a grammatically correct sentence containing an intransitive using the pattern 'subject + auxiliary + intransitive verb '			
--	--	--	--	--

APPENDIX 12: Document Analysis Schedule For Class II Level English Grammar Test

SKILL TESTED	SUB – SKILL (S)	Does the learner have the skill/ sub-skill? 1. Yes 2. No	Type of Error(s)	Example(s) of errors
A)VOCABULARY ACQUISITION a) Preposition	Use of Prepositions in simple sentences to indicate the location of objects in relation to others ‘in, on, under’			
b) Adjectival	i) Use of comparative and Superlative adjectives ‘bigger, biggest’			
	ii) Use of comparative adjectives in simple sentences ‘bigger’			
	iii) Use of ‘good at’			
c) Proforms	Use of indefinite pronouns ‘nothing, anything, nobody’			
d) Adverbials	i) Use of adverbial ‘looks like’			
	ii) Use of ‘used for’			
B)LANGUAGE STRUCTURE Morphological & Syntactic structures a) Regular & Irregular plural forms	i) Mastery of regular plural forms ending with the plural markers ‘-s, -es, -ies, -eves’			
	ii) Mastery of irregular plural forms			
	iii) Mastery of plural forms of simple sentences			
b) Mastery of the use of different tenses in simple sentences	i) Simple present tense ‘go’			
	ii) Present continuous ‘going’			
	iii) Simple past tense 3 rd person singular ‘goes’			
	iv) Simple past tense ‘went’			
	v) Simple perfect tense			
c) Word – order in sentences	Mastery of word – order in a simple sentence with the sentence patterns ‘subject + verb + object’			
d) Sentence forms	Mastery of interrogatives relating to everyday life at home and in school			

APPENDIX 13: Document Analysis Schedule For Class III Level English Grammar Test

SKILL TESTED	SUB – SKILL (S)	Does the learner Have the skill/ Sub-skill? 1. Yes 2. No	Error(s)	Example (s) of error(s)
A)VOCABULARY ACQUISITION a) adjectival	i) mastery of possessive adjectives: First person singular ‘my’			
	ii) Mastery of the use of intensifiers ‘too to’			
	iii) Mastery of the use of the intensifier ‘very’			
	iv) Mastery of the indefinite adjective ‘any’ for negation			
	v) Use of the indefinite adjective ‘come’ to indicate quantity			
b) Proforms	i) Mastery of reflexive pronoun ‘myself’			
	ii) Mastery of personal pronouns first person singular object ‘me’			
	iii) Mastery of possessive pronouns first person singular ‘mine’			
c) Adverbs	i) Mastery of the use of the modal verb ‘may’			
	ii) Mastery of the use of phrasal verbs ‘have to, able to’			
B)LANGUAGE STRUCTURE morphological & syntactic structures i) Clauses coordinating a) Clauses	i) Use of coordinating containing clause ‘either or’			

	ii) use of coordinating clauses 'but'			
b) Conditional clauses	i) Use of conditional clause containing 'if'			
	ii) Use of conditional clauses containing 'unless'			
c) Adverbial clauses	i) Use of adverbials of reason 'because'			
	ii) Use of adverbial of time 'when'			
d) Noun clauses	i) Use of a noun clause introduced by 'how'			
	ii) Use of a noun clause introduced by 'why'			
e) Adjectival clauses	i) Use of adjectival clause containing 'who' relative pronoun			
	ii) Use of adjectival clause containing 'which' the relative pronoun			
ii) Construction of compound sentences	i) Construction of a compound sentence using coordinating clauses 'which'			
	ii) Construction of a compound sentence using coordinating clauses 'and'			
	iii) Construction of a compound sentence using the relative pronoun 'who'			

APPENDIX 14: Document Analysis Schedule for Class I Level Reading Comprehension

Test

SKILL TESTED	SUB – SKILL (S)	Does the learner have the skill/ sub-test? 1. Yes 2. No	Error(s)	Example(s) of error (s)	Emerging theme(s)
1) Comprehension at one – word level	i) Comprehension of vocabulary relating to home and school				
	ii) Comprehension of names of basic geometrical shapes: rectangle, circle, oval, triangle				
Comprehension of numerals 1 – 99 written in words					
Comprehension at simple sentence level	Comprehension of simple sentences describing activities in everyday life at home and school.				

APPENDIX 15: Document Analysis Schedule for Class II Level Reading Comprehension

Test

SKILL TESTED	SUB – SKILL (S)	Does the learner have the skill/sub-skill? 1. Yes 2. No	Error(s)	Example(s) of error(s)	Emerging theme(s)
1 Comprehension at sentence level					
2 Comprehension of numerals 1 – 999 written in words					

APPENDIX 16: Document Analysis Schedule for Class III Level Reading

Comprehension Test

SKILL TESTED	SUB – SKILL (S)	Does the learner have the skill/ sub-skill? 1. Yes 2. No	Error(s)	Example(s)	Emerging theme(s)
Comprehension of a short passage consisting of 56 words of simple & compound sentences about everyday life	i) Comprehension of literal meaning of sentences				
	ii) Comprehension of implied meaning in a passage				
	iii) Comprehension of relationship of thought in a passage				

APPENDIX 17: Document Analysis Schedule for Class I Level Expressive Written

English Test

SKILL TESTED	SUB – SKILL (S)	Does the learner have the skill/ sub-skill? 1. Yes 2. No	Error(s)	Example(s) of error(s)	Emerging theme(s)
1) Knowledge of letters of the alphabet from A – Z	Writing letters of the alphabet				
2) Expression at one word level	Writing names of objects in everyday life				
3) Ability to write numerals in words	Writing numerals 1 – 99 in words				
4) Expression of self in full grammatically correct English sentences	i) Describing the position of an object which is under another				
	ii) Tell own age				

APPENDIX 18: Document Analysis Schedule for Class II Level Expressive Written

English Test

SKILL TESTED	SUB – SKILL (S)	Does the learner have the skill/sbu-skill1. 1. Yes 2. No	Error(s)	Examples of error(s)	Emerging themes
TELLING TIME	i) Telling time up to 'quarter to'				
	ii) Telling time upto 'quarter past'				
Ability to write numerals in words	Writing numerals 1 – 999 in own words				
Expression of self at sentence level	i) Expression of self using a simple sentence in singular				
	ii) Expression of self using a simple sentence in plural				

APPENDIX 19: Document Analysis Schedule for Class III Expressive Written English

Test

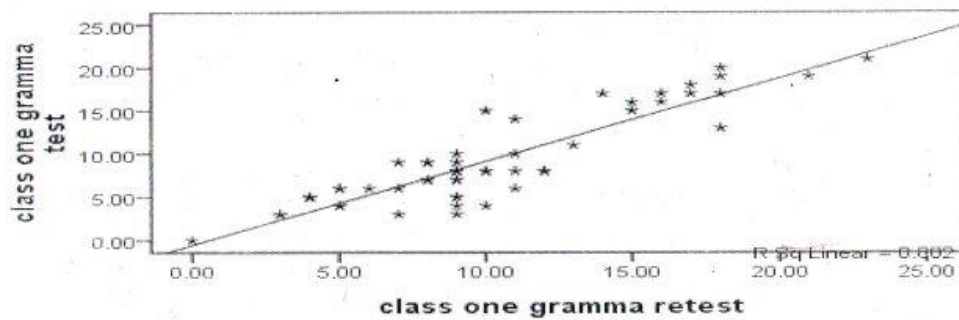
SKILL TESTED	SUB – SKILL (S)	Does the learner have the skill/sub-skill? 1. Yes 2. No	Error(s)	Example(s) of errors	Emerging theme(s)
1) Ability to write an introduction of Guided composition of 58 words	Introducing self by stating own name age, class & school being attended				
2) Ability to write the body of a guided composition	Writing about a friend name, class being attended, why the writer likes him/her				
3) Cohesion	Use of cohesive ties; reference				
4) Ability to write the conclusion of a guided composition	Summarizing the composition by stating what he/she and the friend will do when they grow up.				

APPENDIX 20: Test-retest Correlations for Class I, II and III Grammar Tests

RELIABILITY TEST RELIABILITY TEST FOR GRAMMAR

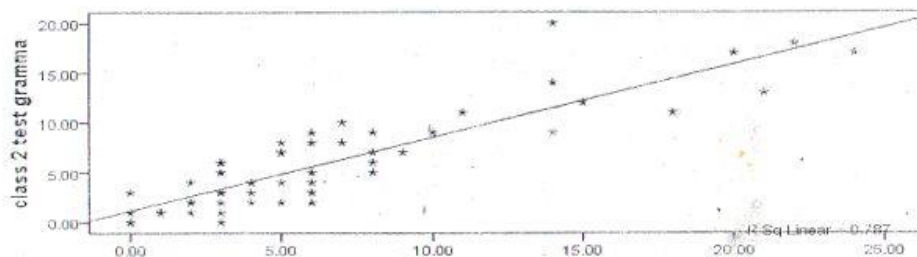
		class one grammar test	class one grammarretest
class one grammar test	Pearson Correlation	1	.896
	Sig. (2-tailed)		.000
	N	53	53
class one grammar retest	Pearson Correlation	.896	1
	Sig. (2-tailed)	.000	
	N	53	53

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



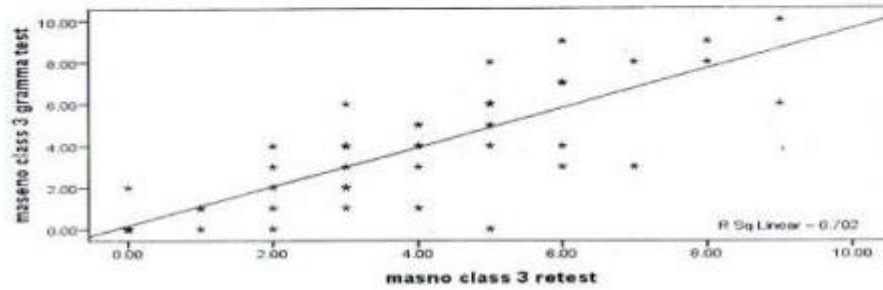
		class 2 test grammar	class 2 retest grammar
class 2 test grammar	Pearson Correlation	1	.887**
	Sig. (2-tailed)		.000
	N	53	53
class 2 retest grammar	Pearson Correlation	.887**	1
	Sig. (2-tailed)	.000	
	N	53	53

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



		class 3 grammar test	Class 3 grammar retest
class 3 grammar test	Pearson Correlation	1	.838
	Sig. (2-tailed)		.000
	N	53	53
class 3 grammar retest	Pearson Correlation	.838	1
	Sig. (2-tailed)	.000	
	N	53	53

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

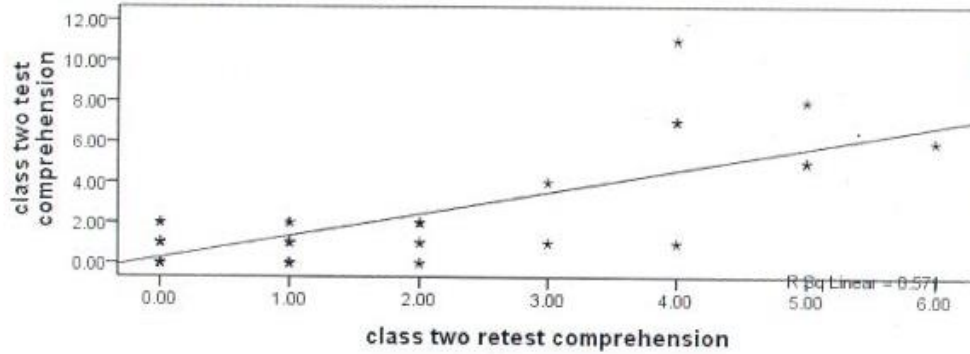


APPENDIX 21: Test-retest Correlations for Class I, II and III Reading Comprehension

Tests

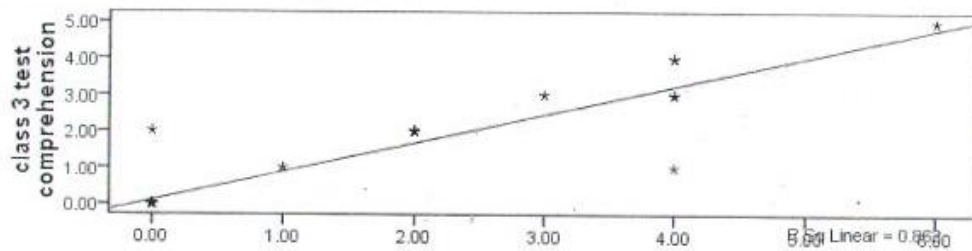
		class two test comprehension	class two retest comprehension
class two test comprehension	Pearson Correlation	1	.756**
	Sig. (2-tailed)		.000
	N	52	52
class two retest comprehension	Pearson Correlation	.756**	1
	Sig. (2-tailed)	.000	
	N	52	52

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



		class 3 test comprehension	class 3 retest comprehension
class 3 test comprehension	Pearson Correlation	1	.929**
	Sig. (2-tailed)		.000
	N	40	40
class 3 retest comprehension	Pearson Correlation	.929**	1
	Sig. (2-tailed)	.000	
	N	40	40

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

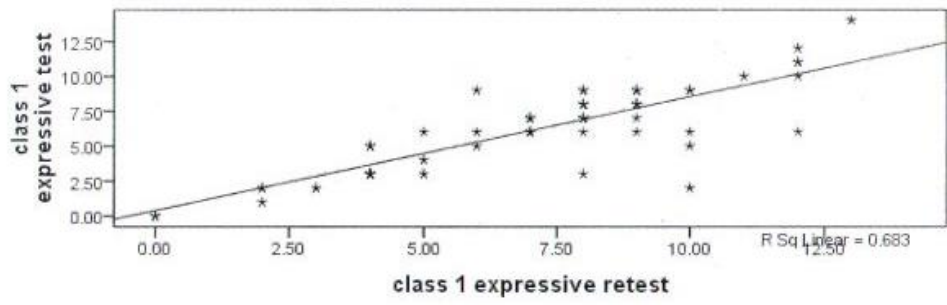


APPENDIX 22: Test-retest Correlations for Class I, II and III Expressive Written English Tests

RELIABILITY TEST FOR EXPRESSIVE ENGLISH

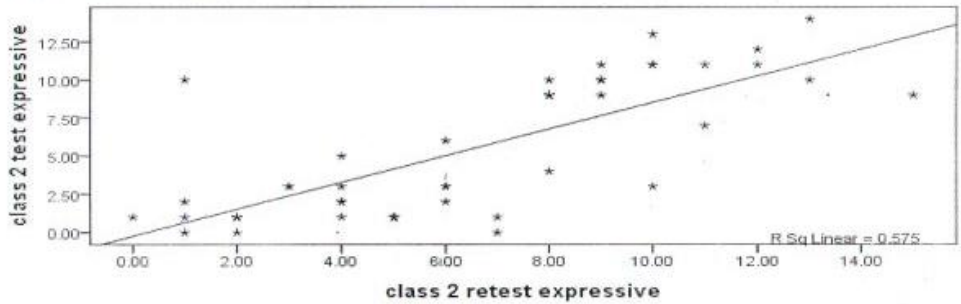
		class 1 expressive test	class 1 expressive retest
class 1 expressive test	Pearson Correlation	1	.827**
	Sig. (2-tailed)		.000
	N	56	56
class 1 expressive retest	Pearson Correlation	.827**	1
	Sig. (2-tailed)	.000	
	N	56	56

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



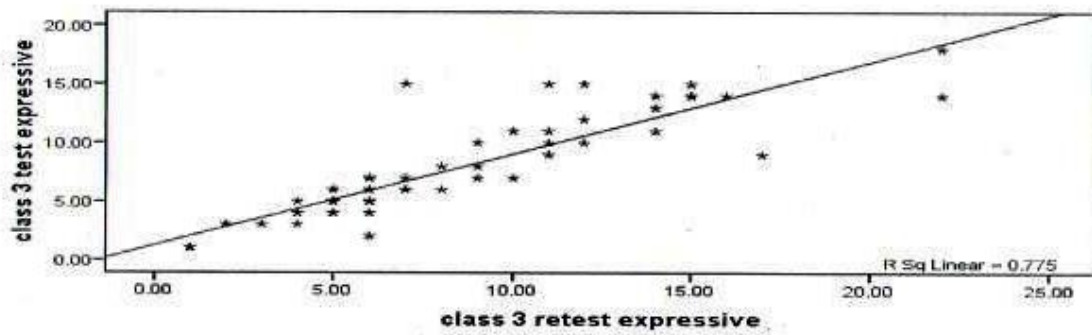
		class two test expressive	class two retest expressive
class two test expressive	Pearson Correlation	1	.758**
	Sig. (2-tailed)		.000
	N	45	45
class two retest expressive	Pearson Correlation	.758**	1
	Sig. (2-tailed)	.000	
	N	45	45

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



		class 3 test expressive	class 3 retest expressive
class 3 test expressive	Pearson Correlation	1	.880
	Sig. (2-tailed)		.000
	N	53	53
class 3 retest expressive	Pearson Correlation	.880	1
	Sig. (2-tailed)	.000	
	N	53	53

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



APPENDIX 23 : Consent Form for Parents

Tobias Ogutu Adera
Department of Special Needs Education
Maseno University
P.O. Box 333, Maseno
Mobile : 0718739746
Email: aderaogutu@gmail.
Date:.....

To:.....
.....

RE: REQUEST FOR CONSENT

I, Tobias Ogutu Adera, will be conducting a research in sixteen Primary schools for the Deaf in Kenya including.....School where your childis learning. The research topic will be “**Assessment of English Achievement level of Class Three pre-lingually deaf learners in Kenya.**” The study population will consist of Class Three prelingually deaf learners and their English teachers. The learners will sit an English test while the teachers will be asked to give demographic background information about each learner. The demographic information will include each learner’s age, class joined when first admitted in school, language known on first admission, knowledge of English and Kenyan Sign Language (KSL) by the parent(s). The results of the test and the demographic information will be treated with confidentiality and will be used solely for the purpose of the study.

The identity of the parents, the learners and the school will be protected by using code names. Participation in the study will be voluntary and the participants will be free to withdraw at any time.

For more information you can contact the researcher, school at P.O. Box..... or Maseno University Review Committee (MUERC), Private Bag, Maseno Mobile: + 254 721543976 or +254 733 230 878 E-mail: sbonuke@gmail.com.

Please sign the form below to let me know whether or not this request has been granted

Thank you.

Yours faithfully,

Tobias Ogutu Adera

CONSENT FORM

I....., the parent of in Class in School, I agree that he/she can sit the test during the study. The demographic background information of the child can also be used in the study.

Signed..... Date.....

**APPENDIX 24: Letter of Compliance from Maseno University Ethics Review
Committee (MUERC)**



MASENO UNIVERSITY ETHICS REVIEW COMMITTEE

Tel: +254 057 351 622 Ext: 3050
Fax: +254 057 351 221

Private Bag – 40105, Maseno, Kenya
Email: muerc-secretariat@maseno.ac.ke

FROM: Secretary - MUERC

DATE: 6th October, 2015

TO: Tobias Ogutu Adera
PG/PHD/011/2007
Department of Special Needs Education and Rehabilitation
School of Education, Maseno University
P. O. Box, 333, Maseno, Kenya

REF: MSU/DRPI/MUERC/00191/15

**RE: Assessment of English Achievement Levels of Class Three Prelingually Deaf
Learners in Kenya. Proposal Reference Number MSU/DRPI/MUERC/00191/15**

This is to inform you that the Maseno University Ethics Review Committee (MUERC) determined that the ethics issues raised at the initial review were adequately addressed in the revised proposal. Consequently, the study is granted approval for implementation effective this 6th day of October, 2015 for a period of one (1) year.

Please note that authorization to conduct this study will automatically expire on 5th October, 2016. If you plan to continue with the study beyond this date, please submit an application for continuation approval to the MUERC Secretariat by 3rd September, 2016.

Approval for continuation of the study will be subject to successful submission of an annual progress report that is to reach the MUERC Secretariat by 3rd September, 2016.

Please note that any unanticipated problems resulting from the conduct of this study must be reported to MUERC. You are required to submit any proposed changes to this study to MUERC for review and approval prior to initiation. Please advise MUERC when the study is completed or discontinued.

Thank you.

Yours faithfully,

Dr. Bonuke Anyona,
Secretary,
Maseno University Ethics Review Committee.



Cc: Chairman,
Maseno University Ethics Review Committee.

MASENO UNIVERSITY IS ISO 9001:2008 CERTIFIED



**APPENDIX 25: Letter of Approval of Research Topic From School of Graduate Studies,
Maseno University**



**MASENO UNIVERSITY
SCHOOL OF GRADUATE STUDIES**

Office of the Dean

Our Ref: PG/PHD/00011/2007

Private Bag, MASENO, KENYA
Tel:(057)351 22/351008/351011
FAX: 254-057-351153/351221
Email: sgs@maseno.ac.ke

Date: 08th May, 2014

TO WHOM IT MAY CONCERN

**RE: PROPOSAL APPROVAL FOR TOBIAS OGUTU ADERA—
PG/PHD/00011/2007**

The above named is registered in the Doctor of Philosophy in Special Needs Education of the School of Education, Maseno University. This is to confirm that his research proposal titled “An Assessment of English Achievement Level of Class Three Deaf Learners in Kenya” has been approved for conduct of research subject to obtaining all other permissions/clearances that may be required beforehand.

Dr. Pauline Andang'o

ASSOCIATE DEAN, SCHOOL OF GRADUATE STUDIES



APPENDIX 26 :Schools and Units for The Deaf in Kenya By District, 2013

S/NO.	Institution	District	DISABILIT Y	ENROLMENT
1	Ochii	Baringo	HI	24
2	Barwessa	Baringo	HI	5
3	Mochongoi	Baringo	HI	10
4	Kabarnet School for the Deaf Blind	Baringo	HI & DB	30
5	St. Mary's School for the Deaf, Nyangoma	Bondo	HI	180
6	St. Oudra Secondary	Bondo	HI	21
7	St. Joseph's Tech.	Bondo	HI	150
8	St. Antony School for the Deaf	Bungoma East	HI	247
9	Lugulu Day	Bungoma East	HI	8
10	Muji FYM	Bungoma East	HI	10
11	Khalala RC	Bungoma East	HI	8
12	Chelekei Bahai	Bungoma North	HI	12
13	Luuya DEB	Bungoma North	HI	13
14	Lukhokwhe FYM	Bungoma North	HI	13
15	Tabani FYM	Bungoma North	HI	9
16	Misanga FYM	Bungoma South	HI	8
17	Kibabii Girls	Bungoma South	HI	11
18	St. Kizito's School for the Deaf	Bureti	HI	166
19	Mundika School for the Deaf	Busia	HI	43
20	Eldoret School for the Deaf	Eldoret East	HI	102
21	Kipsomba	Eldoret West	HI	6
22	Njukiri Unit	Embu	HI	1
23	Kavutiri Unit	Embu	HI	9
24	Gikuuri Unit	Embu	HI	1
25	Ebukuya School for the Deaf	Emuhaya	HI	56
26	Garissa Special School for the Deaf	Garissa	HI	40
27	Nyagesa ELCK Unit	Gucha	HI	18
28	Nyakembene SDA Unit	Gucha	HI	19

		South		
29	Friends School for the Deaf Givavei	Hamisi	HI	72
30	Nyangweso School for the Deaf	Homabay	HI	210
31	Bongu Unit	Homabay	HI	6
32	Masalani Unit	Ijara	HI	23
33	Kaaga School for the Deaf	Imenti North	HI	172
34	Isiolo School for the Deaf	Isiolo	HI	49
35	Merti Boarding Unit	Isiolo	HI	5
36	Ilbissil Boarding	Kajiado	HI	15
37	Kakamega Sch. For the Deaf	Kakamega Central	HI	40
38	Eregi Mixed	Kakamega South	HI	20
39	Mwikhomo Special School for HI	Kakamega South	HI	34
40	Iten School for the Deaf	Keiyo	HI	68
41	Kambui School for the Deaf	Kiambu	HI	301
42	Makongo Unit	Kibwezi	HI	84
43	Kakuswi Unit	Kibwezi	HI	4
44	Mtamboni Unit	Kibwezi	HI	39
45	Wee Unit	Kibwezi	HI	54
46	Thithi Unit	Kibwezi	HI	21
47	Kibarani School for the Deaf	Kilifi	HI	164
48	Marere Unit	Kilifi	HI	16
49	Mrima Unit	Kilindini	HI	10
50	St. Joseph's Unit	Kinango	HI	3
51	Kafuduni Unit	Kinango	HI	12
52	Kedowa Special School for the Deaf	Kipkelion	HI	97
53	Kerugoya School for the Deaf	Kirinyaga	HI	168
54	Gianchere Special School for the Deaf	Kisii Central	HI	124
55	Kerina Unit	Kisii Central	HI	31
56	Maseno School for the Deaf	Kisumu West	HI	218
57	Kitui School for the Deaf	Kitui	HI	145
58	Central Unit	Kitui	HI	53
59	Muslim Unit	Kitui	HI	106
60	Esageri	Koibatek	HI	46
61	St. Paul's Ntitaru	Kuria East	HI	70
62	Komotobo School for the Deaf	Kuria East	HI	94
63	Kwale School for the Deaf	Kwale	HI & DB	109

64	Kapkoï	Kwanza	HI	9
65	Sipili School for the Deaf	Laikipia West	HI	45
66	Makowe Arid Zone Unit	Lamu	HI	22
67	Milimani	Lugari	HI	48
68	Machakos School for the Deaf	Machakos	HI	187
69	Gede School for the Deaf	Malindi	HI	104
70	Marereni Unit	Malindi	HI	17
71	Shomela Unit	Malindi	HI	11
72	Malanga Unit	Malindi	HI	6
73	Kamor Unit	Mandera East	HI	64
74	Arabia Unit	Mandera East	HI	19
75	Lafey Unit	Mandera East	HI	36
76	Takaba Unit	Mandera West	HI	25
77	Banisa Unit	Mandera West	HI	21
78	Kilima	Marakwet	HI	2
79	SKM Unit	Marsabit	HI	18
80	St. Luke's School for the Deaf	Mbere	HI	70
81	St. Gabriel Unit	Migori	HI	26
82	Mikei Unit	Migori	HI	45
83	Ziwani School for the Deaf	Mombasa	HI	153
84	Moyale School for the Deaf	Moyale	HI	30
85	Uran Unit	Moyale	HI	12
86	Kichakamkwaju Unit	Msambweni	HI	12
87	Kaberwa	Mt. Elgon	HI	30
88	Kongit	Mt. Elgon	HI	3
89	Chesikaki R.C	Mt. Elgon	HI	5
90	Kopsiro SA	Mt. Elgon	HI	13
91	Nomorïo RC	Mt. Elgon	HI	4
92	Mumias Pri. School for the Deaf	Mumias	HI	415
93	St. Angela's Mumias Sec/Voc. School	Mumias	HI	174
94	Muranga School for the Deaf	Muranga	HI	101
95	Mutomo Unit	Mutomo	HI	19
96	Mwingi Unit	Mwingi	HI	65
97	Mutyangome Unit	Mwingi	HI	11
98	Thawabu Unit	Nairobi	HI	8

99	Race Course Unit	Nairobi	HI	33
100	Aga Khan Unit	Nairobi	HI	29
101	Joseph Kangethe Unit	Nairobi	HI	31
102	Ngala School for the Deaf	Nakuru	HI	136
103	Kapsabet School for the Deaf	Nandi Central	HI	114
104	Kapsimotwo	Nandi East	HI	8
105	Entontol	Narok North	HI	5
106	Kenyambi Unit	Nyamira	HI	5
107	Nyandarua School for the Deaf	Nyandarua	HI	104
108	Olwa Unit	Nyando	HI	12
109	Rev. Charles Muhoro Sec. for the Deaf	Nyeri	HI	108
110	Tumutumu School for the Deaf	Nyeri	HI	119
111	Nyagoko Unit	Rarieda	HI	21
112	Kuja Primary School for the Deaf	Rongo	HI	203
113	Kuja Secondary School for the Deaf	Rongo	HI	101
114	Lodokejek	Samburu	HI	25
115	Nina Unit	Siaya	HI	18
116	Jera Unit	Siaya	HI	8
117	Lambwe Christian School	Suba	HI	59
118	Gingo Unit	Suba	HI	4
119	Kinyasaga Unit	Suba	HI	4
120	Wanyama Unit	Suba	HI	8
121	Lisa Hola School for the Deaf	Tana River	HI	76
122	Adanya	Teso	HI	15
123	Kakapel	Teso	HI	18
124	Osuret	Teso	HI	10
125	Kakoli	Teso	HI	12
126	Kwangamor	Teso	HI	11
127	Asinge	Teso	HI	14
128	Aterait	Teso	HI	17
129	Ojaamong	Teso	HI	8
130	Ojamii	Teso	HI	19
131	Kolanya G	Teso	HI	15
132	Njia Special School for the Deaf	Tigania	HI	143
133	Kilgoris DEB	Transmara	HI	10
134	Loyo	Turkana Central	HI	63
135	Turkana Girls	Turkana Central	HI	10

136	Kakuma Girls	Turkana North	HI	15
137	St. Cosmas Napoongoit	Turkana North	HI	10
138	Chekomboro School for the Deaf	Vihiga	HI	79
139	Wajir School for the Deaf	Wajir East	HI	96
140	Atnas Kandie	Wareng	HI	16
Total				7545

(Source: Ministry of Education, Directorate of Quality Assurance & Standards, 2013)

APPENDIX 27 : Administrative Map of Kenya (Source: Moran (E.A) Publishers, 2011:

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KEY

*Counties where the study was conducted