

Assessment of Expressive Written English Functioning Level of Class Three Pre-Lingually Deaf Learners in Kenya

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ABSTRACT

Learners in different countries are currently being taught language at their functioning levels irrespective of their grades. District English Evaluation Tests in Kenya have indicated that Class Three prelingually deaf learners are being taught English above their functioning level. However, the results did not show the learners' functioning level in expressive English. The purpose of the current study was to assess the learner's functioning level in expressive written English. Theory of Syntax by Noam Chomsky which holds that learners acquire language by mastering the vocabulary and the structure of the target language was adapted and used. The study employed evaluative and qualitative research designs. The population consisted of 337 Class Three prelingually deaf learners and 65 Class Three English teachers. Multi-Stage sampling technique was used to select 178 Class III prelingually deaf learners while purposive sampling technique was used to select 16 Class III English teachers of the deaf. Data was collected using a questionnaire and expressive written English test consisting of three sub-tests. The instruments were verified for face and content validity by Class I-III English teachers of the deaf. The reliability of the instruments was established through test-retest using 34 (10%) learners and was determined using Pearson Product-moment correlation (r) at 0.70 or above, $p < 0.05$. Data was analyzed using descriptive statistics and qualitative analysis. None (0.0%) of the 178 learners obtained the criterion pass mark of 50%. The learners' functioning level in expressive written English was found to be at Class I level at the beginning of the school year and were lagging behind the curriculum by three academic years. It was found that the learners' low functioning level in reading comprehension was due to lack of mastery of vocabulary, sentence structure, cohesive ties and prior knowledge of the world around us. It was recommended that the teaching of English to Class III prelingually deaf learners in Kenya should begin at Class I level at the beginning of the school year. The findings may be used by schools to start teaching Class Three prelingually deaf learners English at their functioning level and by the Ministry of Education to inform policy.

Key words: assessment, class, expressive written English, functioning level, prelingually deaf learner, Kenya.

Background of Study

Learners are, currently being taught language at their functioning levels with improved performance in several countries including USA, Britain, Cuba, Canada, India, Singapore and Zambia (Learning Metrics Taskforce, 2003; Migaard and Mingat, 2012; UNESCO, 2014).

Prelingually deaf (PRE-LD) learners in Kenya are 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 and examination as from Class IV (KIE, 2004). Although the learners are currently being taught the language at Class III level as per the expected curriculum outcomes, District Evaluation Tests indicate that they are not functioning at the level. During the period 2010-2012, the learners obtained mean scores of 19.1% to 29.9% in English with no learner obtaining the criterion pass mark of 50% compared to their hearing peers who had mean scores of 55.6% to 68.9% in the same tests (DEO Bungoma, 2013; DEO Kericho, 2013; DEO Kilifi, 2013; DEO Machakos, 2013; DEO Muranga, 2013; DEO Nakuru, 2013; DEO Nandi, 2013). However, the results did not show the learners' functioning level in expressive written English, a main component of language. Information that can be used to teach the learners expressive written English at their functioning level and to inform policy is, therefore, currently lacking.

Expressive written English functioning levels of PRE-LD learners have been established in several countries to facilitate teaching at suitable levels. Expressive written English functioning level of Elementary school PRE-LD learners in USA is at Grade I level or below (Traxler, 2000). The level is also at Grade I level or below in Britain (Powers, 2002). The findings showed that the learners lacked mastery of vocabulary and sentence structure to sustain expression at text level. The findings were supported by

similar studies that also showed that Elementary PRE-LD learners were deficient expressive written English (Lederberg, Schick and Spencer,2012; Marschark and Knoors,2012; Moeller, Tomblin, Yoshinaga-Itano, Conner and Jerger, 2007).

However, the findings related to PRE-LD learners who had been exposed to language during the Critical Language Acquisition Period (CLAP) of 0-3 years of age. Children acquire language best during CLAP AND those nt exposed to language during the period tend to lag behind peers in language development (Mayberry, 2002; Mayberry and Lock, 2003).PRE-LD learners in Kenya start acquiring language late upon joining school at the age of 3-6 years due to lack of early identification and intervention (KIE, 2004b; KSDC, 2006; Makumi, 1995). The findings cannot reliably be applicable to PRE-LD learners in Kenya due to language backgrounds.

Powers (2002) and Traxler (2000) used norm-referenced assessment to determine the learners functioning levels in expressive written English while criterion-referenced assessment was used in this study. The use of criterion-referenced assessment enabled the researcher to determine the learners functioning level in expressive written English in relation to the expected learning outcomes as specified in the curriculum.

In Africa, studies focusing on functioning levels of prelingually deaf learners in expressive written English are limited. However, available findings also show that prelingually deaf learners lack mastery of vocabulary and sentence structure to be able to express themselves in English. Inkonta & Mudduekwe (2005) and Ademokoya (2007) found that Primary and High school prelingually learners in Nigeria were express themlves in English due to deficiency in vocabulary and sentence structure. Makumi (1995) found that Primary school PRE-LD learners in Kenya graduated from school illiterate or semi-illiterate. In another study, Ogada (2012) found that Class VII learners with Hearing Impairment in Nyanza Province in Kenya lacked mastery of vocabulary and sentence structure to be able to write a composition.

METHODOLOGY

Research Design

Qualitative and evaluative research designs were used. Qualitative research design enabled the researcher to analyze Class III PRE-LD learners' mastery of expressive written English at word, sentence and guided composition levels as reflected in their responses in the sub-tests.

Model II Evaluation design was used to determine the learners' functioning level in expressive written English. The design relates to evaluation of performance of users or learners as per the expected curriculum outcomes (Mugenda and Mugenda, 2004; Kothari,20004).

Study Area

The study was conducted in thirteen Primary Schools for the Deaf in Kenya. Three other schools 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 latitude 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 with a school for the deaf in nearly every county (KNBS, 2010). 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.

Study Population

The population consisted of 337 Class Prelingually Deaf (PRE-LD) learners and 65 Class III English teachers from the 49 Primary Schools for the Deaf in Kenya.

Sample Size and Sampling Technique

Fischer' formula for determining size for populations of less than 10,000 (Mugenda and Mugenda, 2004) was used. The sample size was 179. However, one learner did not participate in the study due to sickness

reducing the actual sample to 178.

Multi-stage and saturated sampling techniques were used in the study. A three stage multi-stage sampling technique was used to group the 337 Class III learners in Kenya into three regions: Western Kenya, Central Kenya and Eastern Kenya. The distribution of the learners was as follows: Western Kenya; 218(64.7%) learners; Central Kenya; 79 (23.5%) learners and Eastern Kenya; 40(11.8%) learners.

The Schools for the Deaf in each region were randomly selected and all the Class III PRE-LD learners in each selected school were included in the sample depending on the sample size for the region. The sample for each region was calculated as follows: Western Kenya: $218/337 \times 179 \times 100 = 116$; Central Kenya: $79/337 \times 179 \times 100 = 42$; Eastern Kenya: $40/337 \times 179 \times 100 = 21$

Purposive sampling technique was used to select 16 teachers who were the Class III English teachers in thirteen schools.

Instruments for Data Collection

Data was collected using a researcher-made Expressive Written English Test for Class III PRE-LD learners and a Questionnaire for Class III English teachers.

The Researcher-made English Expressive Written English Test for Class III PRE-LD Learners.

The test which was based on the Primary School English Curriculum objectives (KIE, 2004a) consisted of the following three sub-tests; Class I Expressive Written English Sub-test, Class II Expressive Written English Sub-test and Class III Expressive Written English Sub-test. The criterion pass mark was 50% as determined by the curriculum developer, Kenya Institute of Curriculum (KIE,2006).

Class I Level Expressive Written English Test 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 and describing the position of an object in own full sentence.

Class II Level Expressive Written English Test 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

Class III Level Expressive Written English Test 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.

Questionnaire for Class III English Teachers

The questionnaire was used to collect Class III PRE-LD learners' biodata. The biodata 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), parents' knowledge of English and KSL.

Validity and Reliability of the Research Instruments

Validity of the Instruments

Face and content validity was verified by Class I-III English teachers of the deaf. The teachers were to verify whether or not each sub-test covered 80% of the curriculum content and whether the proportion of the test items devoted to each skill was proportionate to the coverage of the skill in the syllabus. They

were also to verify the suitability of language used and the duration of each sub-test. The teachers were provided with copies of Class I, II and III English syllabi and content verification guides for this purpose. Comments received were used to improve the instruments.

Reliability of the Instruments

The reliability of each sub-test was established using test-retest reliability. The reliability coefficient of each sub-test 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 Expressive Written English Sub-test was 0.83 Class II Expressive Written English Sub-test, 0.76 and Class III Expressive Written English Sub-test, 0.89.

Methods of Data Analysis

Data relating to the learners functioning level in expressive written English was analyzed using a language rating scale with a criterion pass mark set at 50%, frequency counts and means. 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.

Error analysis was used to qualitatively analyze data relating to the learners' mastery expressive written English at word, sentence and guided composition levels. The learners were considered to have mastery of a given skill when at least 50% of the learners (89) had the skill.

4.4 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.

4.4.1 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. The results are presented below (Table 1).

Table 1: 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 abovef (%)
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 1, all the 178 (100%) learners were very weak at Class III and II levels scoring 0 – 24%. None (0.0%) of the learners obtained the criterion pass mark. From the results, the learners' functioning level in expressive written English was below Class II level. At Class I level, 140(78.6%) learners were very weak recording 0-24%. The remaining 38 (21.4) learners were weak recording 25-49%. None of the learners obtained the criterion pass mark. From the results, the learners functioning level in expressive written English was at Class I level. Which is the beginning grade level I Primary School in Kenya.

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. It is consistent other similar studies which also showed that PRE-LD learners were deficient in expressive written language to sustain expression at text level. However, the findings were related to PRE-LD learners who had been exposed to language during CLAP. The learners had also acquired English as the target language in an environment where it was both the home language and majority language. The current finding relates to prelingually deaf learners who were not exposed to language during CLAP and who acquired English in an environment where it was not a home or majority language. The finding may be used by schools to teach Class III PRE-LD learners in Kenya expressive written English at their functioning level with the aim of improving performance.

Mastery of Expressive Written English

Mastery of the following expressive written English skills were tested: expression at one-word level, expression at the sentence level and ability to write a short guided composition of about 56 words.

i). Expression at One–word Level

To test mastery of expression at one-word level, the learners were asked to observe pictures of given objects relating to everyday life and write their names. Excerpts showing the learners' mastery of expressive written English at one-word level are presented in Fig.1

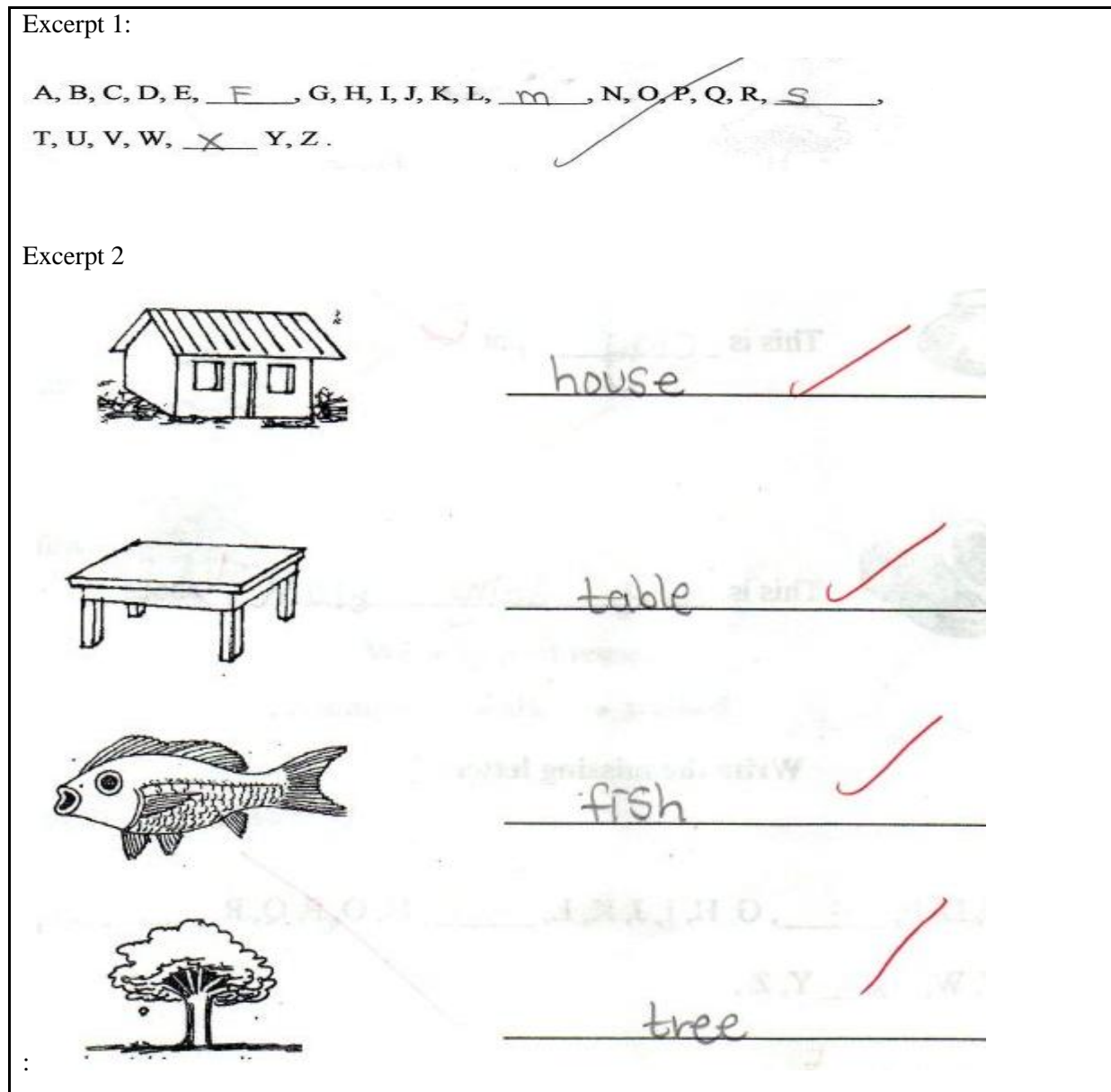


Fig.1: Excerpt Showing Mastery of Expressive Written English at One-word Level

In Fig.1 (Excerpt 1), the learner filled the blanks in the sequence of the alphabet using the correct missing letters. A total of 173 (97.2%) learners used the correct missing letters to complete the alphabet. From the results, the learners had mastered writing letters of the alphabet from A-Z. The finding concurred with Musselman (2000); Morgan, Fuch, Compton, Cordray and Fuchs (2008) who also found that prelingually deaf learners mastered letters of the alphabet during the foundation years in school. However, the findings related to PRE-LD learners who had been exposed to language during CLAP. The current finding showed mastery of letters of the alphabet by Class III by PRE-LD learners who had not been exposed to language during CLAP. The finding can be used as a strength in teaching PRE-LD learners expressive written English.

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 writing names of objects relating to everyday life. The finding concurred with Easterbrooks, Lederberg, Miller, Bergerson and Conner (2008), Harris and Moreno (2006), William (2012) who found that PRE-LD learners had mastery of vocabulary relating to everyday life in their foundation years in school. The findings can be used as strengths in the teaching of expressive written language beyond the word level.

. Expression at Sentence Level

To test mastery of expression in written English at the 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. 2

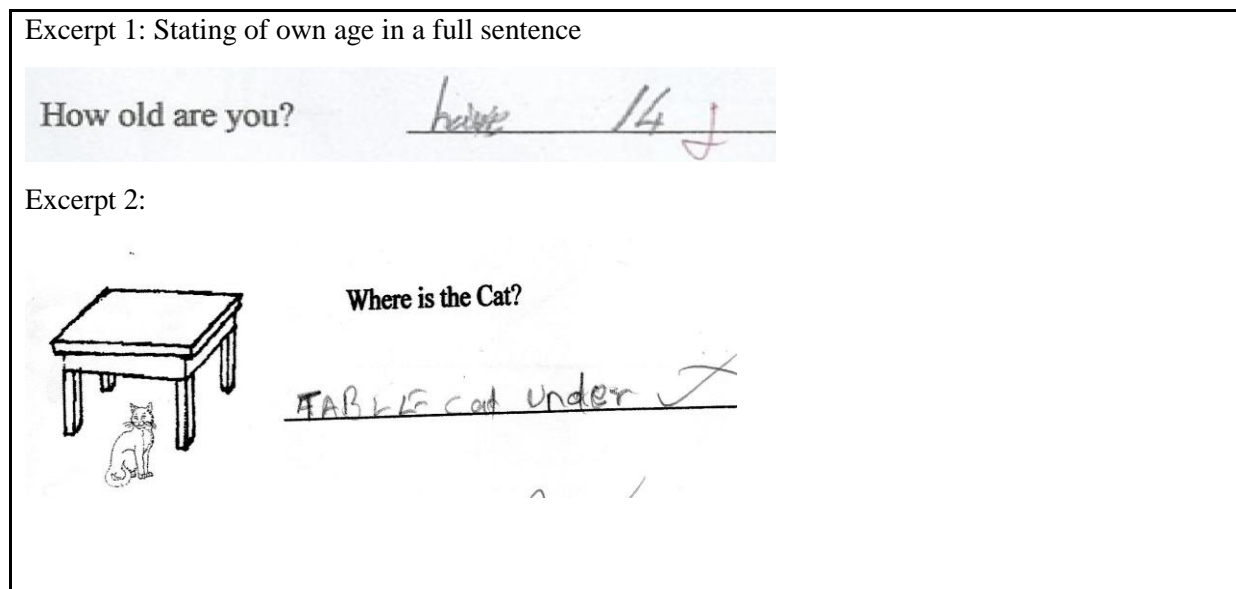


Fig. 2: Excerpts Showing Self Expression at Sentence Level

In Excerpt 1(Fig.2), the learner wrote ‘**have 14**’ instead of ‘**I am 14/fourteen years old**’. The learner omitted the **Subject (I), the verb-to-be (am) and the Noun Phrase (years old)** in the sentence. None (0.0%) of the learners answered the question using a grammatically correct English sentence. From the response, the learners lacked mastery of the structure and elements of a simple English sentence taking the form: **Subject + Verb + Noun Phrase**.

In Excerpt 2, the learner wrote ‘**TABLE cat under**’ instead of ‘**The cat is under the table**’. The learners learner used word-order that took the sentence structure of Kenyan Sign Language (KSL)’ (**Topic+ Comment**) omitting the **Article(the) and the Verb-to-be(is)** in the sentence. None (0.0%) of the learners used grammatically correct sentence to describe the position of the cat. From the results the learners lacked mastery of English sentence structure **Subject + Verb+ Noun Phrase**.

From the results (Fig.2), the learners lacked mastery of English sentence structure to be able to express themselves in written English at sentence level. The results show that lack of mastery of sentence structure is a contributing factor to the learners’ low functioning level in expressive written English.

Ability to Write a Guided Composition.

To test ability to write a guided composition, the learners were asked to fill blanks in a text about two friends in Primary School using own words. An excerpt showing a response by one the learners is presented in Fig.3

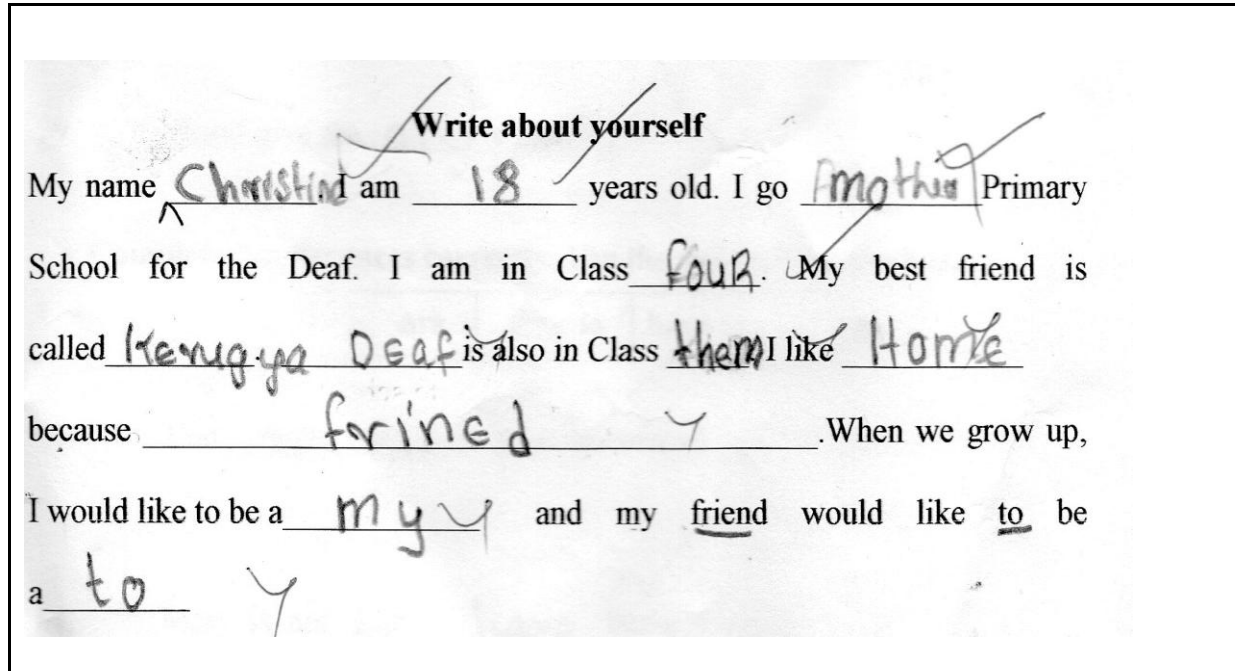


Fig.3: An Excerpt of Showing a Guided Composition by a Prelingually Deaf Learner

In the first sentence(Fig.3), 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 Thirteen Primary School for the Deaf' instead of 'I go to Primary School for the Deaf. The learner used a **Verb** (go) instead of a **Verb Phrase**(go to) and an **Adjective** (thirteen) instead of a **Proper Noun** (name of a school). 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 two 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 lacked by the end of Class III.

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 be able to write a comprehensive text. 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 Class IV/Four**'. The learner omitted a **Pronoun** at the beginning of the sentence and used a wrong one at the end of the sentence. From the response, the learner lacked mastery of pronouns as cohesive ties to be able to write a cohesive text. All the 178 (100%) learners completed the sentence using wrong vocabulary instead of the expected pronouns. The learners lacked mastery of the use of pronouns as cohesive ties to be able to use them in a simple sentence. From the results, lack of mastery of pronouns as cohesive ties is a contributor to the learners' low functioning level in expressive written English. The finding concurred with Ogada (2012) who also 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. The current study, however, specifically shows that lack of mastery of use of pronouns as cohesive ties is a contributing factor to the learners' inability to write a composition by the end of Class III.

In the sixth sentence, the learner wrote '**I like home because friend**' instead of '**I like (Mary) because (Adverbial of reason)**'. The response 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 reasons 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 knowledge of ambitions in life. The learner was also unable to state what they would like to be when they grow up using compound sentence containing adverbial of time of time. All the 178 (100%) learners were unable to state what they 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 construction of a compound sentence containing an adverbial of time is a contributor to the learners' low functioning level in expressive written English,

The current finding is consistent with Ogada (2012) who found that Class VII Learners with Hearing Impairment in Nyanza Province in Kenya lacked mastery of English vocabulary and sentence structure to be able to write a composition. However, the current study showed the expressive written English skills that PRE-LD learners lack by the end of Class III.

Conclusions

The functioning level of Class III PRE-LD learners in Kenya in expressive written English is at Class I level at the beginning of the school year. The learners were lagging behind the curriculum by three academic years and were not being taught at their functioning level.. The learners' low functioning level in expressive written language was due to lack of mastery of pronouns as cohesive ties, prior knowledge of

the world and sentence structure.

Recommendations

The teaching of expressive written English to PRE-LD learners in Kenya should begin at Class I level at the beginning of the school year with focus on mastery of pronouns as cohesive ties, prior knowledge of the world and sentence structure.

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