

**STRATEGIES FACILITATING KENYAN SIGN LANGUAGE PROGRESS IN
PRIMARY SCHOOLS FOR LEARNERS WITH HEARING IMPAIRMENTS,
IN WESTERN PROVINCE, KENYA.**

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Abstract

Until the adoption of Kenyan Sign Language (KSL) in 2004, Kenya had had several arguments about what mode of communication and/or instruction was suitable for learners with hearing impairments (HI). Before then different schools for learners with HI were using different modes, no formal mode of instruction was recognized. Despite learners with HI had been using Kenyan Sign Language unofficially since the 1960s. The purpose of this study was to find out strategies in terms of resources (material and human), teaching methods, teachers' use of KSL in handling lessons, teachers' preparedness and opinions towards the use of KSL in schools for learners with HI. The study employed a descriptive survey design utilizing Questionnaires and observation schedules to collect data. Purposeful and proportionate random samplings were employed to get a study sample of twenty eight teachers and two principals from two schools for learners with HI in Western Province, Kenya. Quantitative data collected was categorized, ordered and coded. The data were analyzed using descriptive statistics and tabulated in frequency tables and bar charts. Qualitative data was analyzed by following the objectives/ themes of the study and presented in narrative form. Study findings revealed that teachers preferred the use of discussion, demonstration, question and answer methods in teaching leaving out dramatization and field trips which were important in the learning process of learners with hearing impairments. Results of the study revealed that there were some strategies put in place to facilitate the progress of KSL such as the use of KSL dictionaries, charts, TVs, computers and resource rooms but they were inadequate. The KSL dictionaries and books were found to have some mistakes as far as KSL grammar is concerned and some pictures in the dictionaries were not clear. It was also found out that KSL was mainly used for clarification of

concepts and not for instruction apart from during KSL subject. It was also found that human resources who included teachers with HI, Teachers trained in KSL and support staffs with HI were insufficient. The study further revealed that teachers had positive opinion towards KSL use but they lacked knowledge and skills in it due to lack of training. Basing on the findings the study recommended that teachers should make use of field trips, project, storytelling and dramatization to enhance understanding for learners with HI. This calls on the Ministry of Education to allocate more funds to facilitate these activities. The study also recommended that the syllabi and books for all subjects be adapted by KIE to suit the use of Kenyan Sign Language. The researcher also suggests that Kenya Institute of Education should develop instructional materials including; charts, Video tapes and maps with KSL illustrations for aiding teachers in teaching using KSL, training of teachers in the use of KSL and employment of more staff with hearing impairments should be considered by the school Board of Governors and Teachers' Service Commission, in order for learners with HI to grow up in an environment rich in Kenyan Sign Language. Further research is suggested on KSL signs relevant for concepts in Science, Social Studies and Mathematic.

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The United Nations Universal Declaration of human rights of 1989 mandates removal of barriers such as communication mode that may hinder education progress of learners with hearing impairments(HI).The United Nations Standard rules on equalization of opportunities for persons with disabilities (1993) further suggests that learners with HI access education in their national language.

Bishop (1985) as cited in Makumi (1987) reveals that children in Zambia who begun their schooling in their first language fared well in their learning. In Kenya, Kenyan Sign Language (KSL) was adopted as a medium of instruction for learners with HI in 2004 after various modes were tried out and seemed not to fulfill the communication need of these learners.

A study by Lewis (2009) reveal that KSL is used in 32 out of 71 institutions for learners with HI in Kenya. This shows a positive move towards the use of Kenyan Sign Language. However Owiko(2009) reveals that there is need for further research on KSL. He recommends for investigations on measures to enhance the use of KSL in teaching to improve performance of learners with HI. These views are echoed by Bunyasi (2010) who reveals that teachers skills in KSL are inadequate and lack or inadequate resources in classes for learners with HI.

The above observations prompt the need to investigate on teachers' training levels in KSL, material/human resources and requirements as far as KSL is concerned. The question to answer is what measures have been put in place to facilitate the use of KSL in schools for learners with HI since its adoption in 2004?

Language requires receiving and interpreting of information which influences various

dimensions of life such as social, moral and cognitive development. Inability to hear and speak is therefore a critical deficit to learners with HI. These learners use Sign Language based on their culture, however they are expected to learn a second language which is used for instruction in their schools. This is a difficult task for these learners. Learners with HI in the whole world have faced challenges regarding which sign system is suitable for instruction in their classes (Kyle and Woll, 1985). In Kenya various modes such as Signed English (SE), Signed Exact English (SEE), and Total Communication (TC) were used in the 1970s and 80s but the learners would fall back to KSL for clarification of concepts. As such KSL was adopted by the Ministry of Education (MOE) as a better medium of instruction.

Despite researchers have revealed gaps that need to be filled; that some schools are not using KSL (Ndurumo, 1988); that some schools lack teachers with HI as well as sign language interpreters and that learning/ teaching resources are inadequate (Mukangu, 2008; Bunyai, 2010). These findings have necessitated the need to carry out the current study whose aim is to find out strategies that have been put in place in schools for learners with HI to facilitate the progress of KSL as a medium of instruction. The concern is as good as we have the policy and good recommendations regarding the use of KSL in classes for learners with HI, do we have resources in these classes to foresee the implementation of the policy?

Purpose and objectives of the study

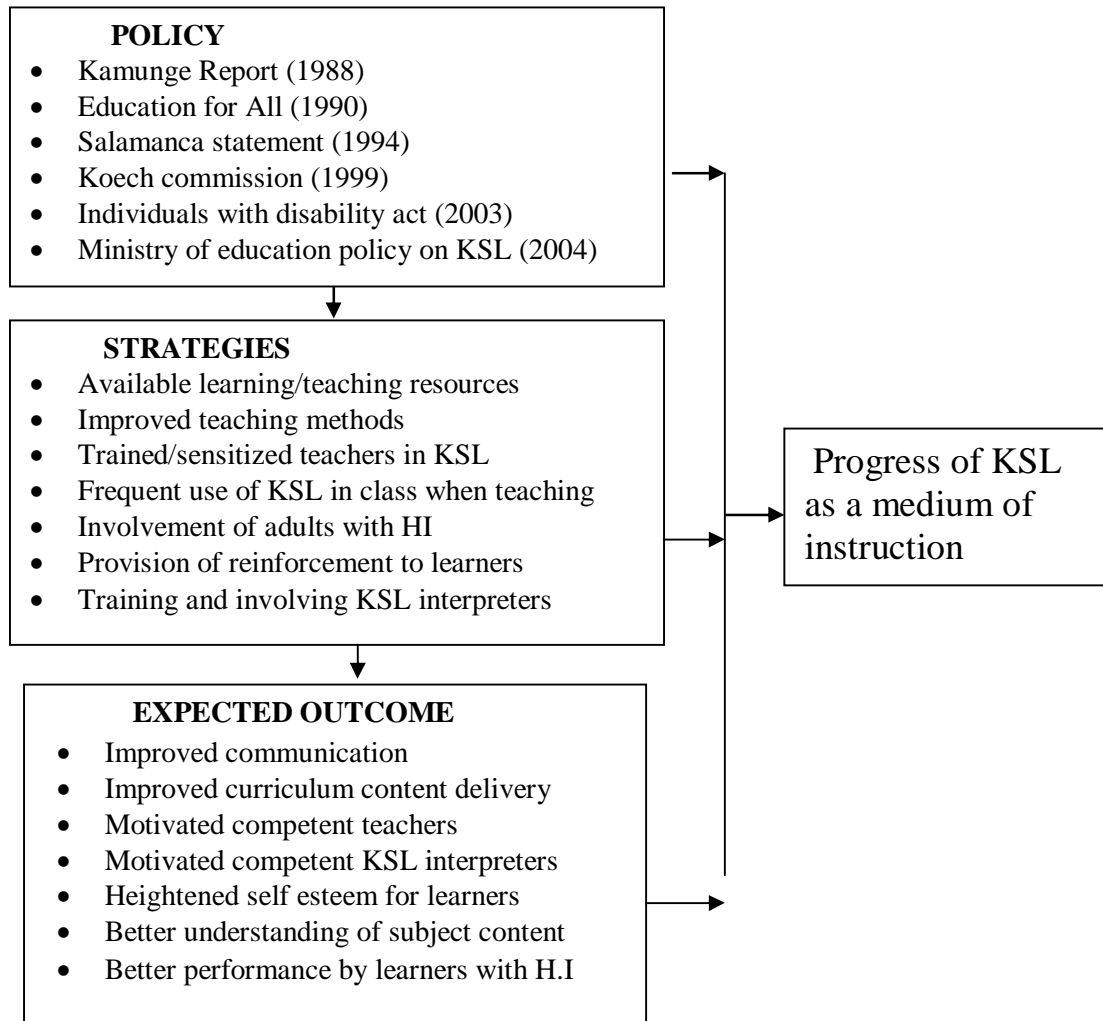
This study was to investigate strategies in terms of material and human resources in schools for learners with hearing impairments facilitating the progress of KSL. The major objectives were to:

- Identify methods employed by teachers in classes for learners with HI.
- Find out how KSL is applied in classes when teaching learners with HI.
- Identify strategies used to facilitate the use of KSL in schools for learners with HI.
- Establish teachers' opinion towards KSL as a medium of instruction for learners with HI.

Theoretical frame work

The study was guided by Noam Chomsky's theory on Language acquisition of 1977. This theory emphasizes; everyone has an inborn faculty for first language acquisition, at birth children already have brains whose neural circuits have linguistic information, if nurtured well first language acquisition and use is realized within the shortest time expected.

This theory also emphasizes that children think in their first language; therefore they should be exposed to rich environments that enhance their first language early in life. This theory advocates for the use of Kenyan Sign Language which is the first language for learners with hearing impairments in Kenya.

Conceptual framework: Progress of KSL as a medium of instruction.

Source: Self Adapted 2011

Recommendations that have emerged from reports set up by the government since 1988 to date reveal the commitment of the government to facilitate development of KSL for learners with HI. If strategies are put in place to implement such reports as shown in the figure above, then the outcome will be realized. No doubt learners with HI will celebrate for being empowered.

METHOD

DESIGN OF THE STUDY

Target population

The population for the study was 100 teachers who included 94 teachers and 6 principals in schools for learners with hearing impairments.

Sampling Technique

Purposive sampling was used to select two schools from the total six schools for learners with HI in Western Province. Selection of teachers to take part in the study was done by conducting a proportionate stratified sampling. One stratum consisted of 17 teachers from one school; the other had 37 from the second school. Simple random sampling was then conducted in the two strata in order to come up with 9 respondents from the first stratum and 19 from the second stratum totaling to 28 respondents. Both the principals of the two participating schools were included in the study by default; as a result the study sample had 30 participants.

Sample size

The sample size comprised a total of 30 respondents. This was an appropriate sample to represent the population under study. The 30 respondents included 28 teachers and 2 principals who represented 30% of the target population.

Research instruments

The researcher used questionnaires and observation schedule. The questionnaire allowed the researcher to give similar questions to the respondents hence allowed comparisons of the responses from different respondents. Observation schedule enabled the researcher to collect first hand information that questionnaires could not access.

Pilot study

Pilot study was conducted at Kakamega School for the deaf. The pilot study sample was 10

teachers, including the principal with similar characteristics like the actual study sample but who did not take part in the actual study.

Validity

The researcher sought opinions from experts who included supervisors from the department of Special Education and Educational Psychology competent in the area being investigated.

Reliability

Reliability of the instruments was determined by test-retest method on the pilot study sample. Comparison of answers obtained from both occasions was done by calculating the correlation coefficient using Pearson Product moment correlation coefficient formula of about 0.75. This established the extent to which the teachers' and principals' responses were consistent.

Data Collection Techniques

The researcher first delivered copies of research permit and letters of introduction to inform the respondents about the purpose of the study. The researcher then visited the schools for two weeks to familiarize and interact with the learners and teachers. This period was important in that it helped conceal the researcher's presence in the classroom during observation phase.

After the familiarization period the researcher began the study by observing teachers in their respective classes and the learning environment. The researcher then gave the questionnaires to the teachers and requested them to fill appropriately. Information gathered from questionnaires and observation schedule was recorded and put together for analysis.

Data analysis

Quantitative data was coded and tabulated according to objectives/ themes. Responses from the likert scale were tabulated on the basis of Strongly Agree (SA), Agree (A), I don't know,

Disagree (D) and Strongly Disagree (SD) respectively. Each response was scored on a scale 1 to 5 points for all positive statements. Thus scoring was done starting from the highest (SA) five points to the lowest (SD) one point. All the data was then analyzed using descriptive statistics. Results were presented in frequency distribution tables and pie charts, which yielded descriptive data.

Qualitative data was organized using the objectives, and presented in narrative form which gave the researcher easy way to discuss the findings.

Results

Preferred methods of teaching

The researcher's findings revealed that the preferred methods of teaching by teachers from the selected schools were discussion 9(30%) and demonstration 7(23.3%). Observation by the researcher revealed that discussion, question and answer and demonstration were the preferred methods. The study also found out that dramatization, field trips and storytelling were the least preferred due to lack of resources, funds and time due to the wide syllabus to be covered.

Medium of instruction used in class

The respondents' 12(40%) responses revealed that Kenyan Sign Language was the mostly used medium of instruction. Total communication was cited to be used by 11(36.7%) respondents. Two (6.7%) said Signed English while 5(16.7%) said Signed Exact English. Findings on frequency of using KSL in classes for learners with hearing impairments indicated that 20(66.7%) respondents were using Kenyan Sign Language very often, six (20%) used KSL often adding up to 86.7%. However the researcher's observation revealed that Total Communication was mostly used for instruction while Kenyan Sign language was mainly used to clarify concepts in all subjects; she observed that whenever learners hadn't understood what was being explained, they could turn to each other and in KSL explain what was not understood then finally nod their heads to show having understood. Further observation revealed that KSL was fully used for instruction during Kenyan Sign Language subject lessons. A 53.3% of the

respondents said KSL was used often because it enhanced understanding, other 30% said it was learner centered.

Strategies facilitating KSL use in schools for learners with hearing impairments.

The researcher classified the strategies in three broad categories; materials, facilities and human resources. Results are described in the subsections that follow:

a. Materials

The findings on materials facilitating KSL use indicated that 14(46.7%) of the respondents said they used KSL charts, eleven respondents (36.7%) said they used KSL books and dictionaries while 2(6.7%) said real objects promoted the use of KSL. Observation by the researcher during lesson presentation revealed that there were some materials facilitating KSL use but were inadequate. The researcher's further observation revealed only four teachers used charts when presenting their lessons but after the lesson these teachers did not hang the charts in class. It was also revealed that the KSL books used had some mistakes, for example some signs in the KSL Dictionary for Schools (4th edition) by K.I.E were not clear. Kenyan Sign

Language Dictionary by Kenya National Association of the Deaf (KNAD) had its index written in Kiswahili which made it hard for learners with HI to access the signs easily.

b. Facilities promoting learning of Kenyan Sign Language.

Findings indicates that 16(53.3%) of the respondents said they didn't make use of any facilities in the school in enhancing the use of KSL. Five respondents who were equivalent to (16.7%) said they used computers, while 4 (13.3%) said they used the Television. The researcher's physical check of available facilities to verify the responses revealed that the libraries in both schools under study lacked materials on Kenyan Sign Language. At St Martins School for the deaf there were four Computers while at St Antony only one computer was observed which were used for secretarial and computer skills other than enhancing KSL use.

C. Human resource promoting Kenyan Sign Language use

A big number of respondents 16 (53.3%) said teachers with hearing impairments contributed a lot in promoting the use of KSL. Another 7(23.3%) said teachers trained in KSL did promote Kenyan Sign Language use in classrooms. Observation made by the researcher in eight classes to verify the availability and use of human resources during lesson presentation, revealed that there were some human resources in the schools under study but were not sufficient for facilitation of Kenyan Sign Language. In both schools, Kenyan sign language interpreters who are important in the progress of KSL use were not available.

Results from principals' responses indicated that 25(83.3%) of teachers had Bachelor of education (SNE) degree, those with Diploma in SNE were 17(56.6%), teachers had attained a certificate in SNE were 9 (30%). These results show that some teachers had trained in more than one category hence were highly qualified in SNE. However those trained in KSL were too few (30%) to effectively enhance the use of Kenyan Sign Language. This shows that most teachers had not trained on how to apply KSL in classes for learners with hearing impairments.

Teachers' opinions towards the use of Kenyan Sign Language.

The study findings indicated that majority (50%) of the respondents felt KSL was a better mode of interaction and could serve as a good medium of instruction because it enhanced the learners' understanding and was child centered. However the respondents felt the government should consider training more teachers in the use of Kenyan Sign Language and plan for provision of learning and teaching resources required. Further findings revealed that the use of Kenyan Sign Language allowed learners with HI to bring out their deeper views, information and secrets which could otherwise not be explained using any other language imposed on them. It was also established from the results that many respondents 21(70%) supported the use of KSL in schools for learners with hearing impairments.

Discussion

Earlier researches on Kenyan Sign Language had focused on effects of sign language mode of instruction on acquisition of English affixes and prefixes by hearing impaired form two learners (Wamae, 2003) Development of signs for scientific terms for schools for the hearing impaired (Wanjau , 2005)) and factors hindering effective teaching and learning activities for learners with hearing impairments (Kamonya, 2008). None of these studies looked at strategies facilitating Kenyan Sign Language in schools for learners with hearing impairments hence the need for the current study. The study was conducted in two selected schools in Western Province which were practicing the use of Kenyan Sign Language.

Research findings on methods of teaching revealed that the preferred methods of teaching by teachers from the selected schools were discussion 9(30%) and demonstration 7(23.3%).

Dramatization, field trips and storytelling were the least preferred due to lack of resources, funds and time. This disadvantaged slow learners who gained more from such approaches. These findings support Wangechi (2007) who revealed that schools for learners with special needs lacked adequate resources and funds which were very essential in the learning progress.

Research findings on medium of instruction in the filled questionnaires were contrary to the researcher's observation indicating that, the teachers submitted to be using Kenyan Sign Language for instruction while in real sense they used Total Communication. This could be because they feared victimization due to the policy in place on KSL use (MOE 2004, 2009). However some teachers commented that some concepts lacked KSL signs which became a problem during instruction. Further findings revealed that Kenyan Sign language was used very often by most teachers to clarify concepts in all subjects since KSL was learner centered and enhanced

understanding. These findings are in agreement with Kamonya (2008) who found out that teachers preferred Total Communication for teaching learners with hearing impairments.

The findings also conform with Muiti (2010) who showed that learners with HI learn and understand better through KSL hence suggested that teachers need to be proficient in using Kenyan Sign Language, in order to pass the expected knowledge and skills to the learners with hearing impairments.

Further findings showed that schools under study lacked sufficient learning and teaching materials which support Wangechi's (2007) findings, which revealed that schools lacked teaching materials and teachers did not make appropriate use of materials in classrooms such as charts, maps, models and real objects to enhance important aspects in teaching learners with special needs. The researchers results are also in agreement with Okombo (2008), who observed

that instructional materials were lacking in schools for learners with hearing impairments and suggested that a wide range of materials needed to be developed including; materials for teaching other subjects using KSL and materials for teaching Kenyan Sign Language including materials that would provide the learners with an opportunity to enjoy stories told in KSL. The results also support Lumumba (2009) who observed that lack of adequate instructional materials such as reading materials and lack of accompanying signs on these materials for easy interpretation and quick mastery of concepts, impeded communication between the learners and the teachers.

In considerations of human resources facilitating the use of Kenyan Sign Language, the study found out that they were not adequately found in the schools under study. These findings are in agreement with Mukangu (2008) and Bunyasi (2010) who observed that teachers with hearing impairments who would serve as role models for learners with HI were not sufficiently available in schools for learners with hearing impairments. The researcher's findings on human resources also conform with MOE (2009) results on the National Special Needs Policy Framework. It's finding on Capacity Building and Human Resource Development affirmed that:

"There is need for other personnel like teacher aids, house mothers/fathers, Sign Language interpreters, readers among others in institutions. Services of these professionals are lacking in education system either due to lack of training or funds for their remuneration" pg 2

The study results on teachers training levels showed that some teachers had trained in more than one category hence were highly qualified in SNE. However those trained in KSL were too few (30%) to effectively enhance the use of KSL. This shows that most teachers had not trained on how to apply KSL in classes for learners with hearing impairments. The results are in support of Bunyasi (2010) who among other findings, revealed that teachers' proficiency in KSL was inadequate.

Concerning teachers' opinion towards the use of Kenyan Sign Language, results revealed that teachers had positive opinion over the use of Kenyan Sign Language; the teachers said that KSL made clarification of concepts easier. The results are in support Okombo (2004) who revealed that learners with HI found it easy to interact and understand information when KSL was used

because it served as a mother tongue. The results show that most respondents (70%) considered KSL as a better mode of instruction for learners with hearing impairments although they required to be trained since they lacked the skills and knowledge in it. The study findings support Muti (2010) who reported that the government should initiate training for teachers in Sign Language and provide specialized learning materials for effective learning.

Recommendations

Following the findings of the study, the researcher made the following recommendations;

Recommendations on teaching methods

Teachers should embrace teaching methodologies such as field trips, project and the use of motivational guest speakers from various educational fields. This calls on the Ministry of education to allocate more funds to schools for learners with hearing impairments. This will enable the head teachers and teachers to plan and implement such activities. Teachers should also consider using visual aids while utilizing dramatization, pantomiming, mimicry and storytelling to aid the learners memorize and conceptualize what they learn with ease.

Recommendations on the implementation of KSL

The syllabi and books for all subjects for learners with HI need to be revised and adapted to the

Kenyan Sign Language style of sentence structure by Kenya Institute of Education. The current syllabi are English oriented which makes it hard for teachers to scheme, plan and teach using Kenya Sign Language. The researcher also observes that the current curriculum is wide and rigid hence suggests that it should be adapted to suit the needs of learners with HI; these learners take more time to learn and conceptualize information compared to their hearing counterparts.

Recommendations on resources used to facilitate the use of KSL

Teachers in schools for learners with HI should form Kenyan Sign Language Panels and develop improvised teaching/ learning materials to aid and enhance the use of KSL in classrooms. There is also need for KIE to engage in development of instructional materials with KSL illustrations, come up with more Kenyan Sign Language signs for terminologies especially on emerging issues in the modern world. The current KSL dictionaries and books need to have signs accompanied by short explanations on hand movement, orientation and the place of articulation. Facilities in schools for learners with HI should be improved to promote Kenyan Sign Language use; such include building of modern libraries and resource rooms equipped with KSL materials. The head teachers should come up with organized KSL sessions in their schools in which the teachers who are trained in Kenyan Sign Language and guest speakers vast in KSL should be utilized to pass the knowledge and skills to the rest of the teachers and learners with HI.

Recommendation on teachers' opinion towards KSL as a medium of instruction

Teachers who still hold negative opinion towards KSL as a medium of instruction should be made to understand that children listen and learn better in their mother tongue and since other countries are using their sign language such as American Sign Language, Japanese Sign Language and Ugandan Sign Language, there is need for the Kenyan Learners with HI to enjoy learning through their National Sign Language which they understand with ease.

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Personal Statement for journal work

18th

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