

Teachers Perception on Verbal Speech Development of Hard of Hearing Learners in Kakamega County, Kenya

Osiche Rosemary Nasimiyu^{1*}, Dr. Bunyasi Awori², Dr. Francisah Irangi Wamocho³

Department of Early Childhood and Special Needs Education, Kenyatta University, Kenya

*Corresponding Author

DOI: <https://dx.doi.org/10.47772/IJRISS.2026.100300044>

Received: 08 March 2026; Accepted: 13 March 2026; Published: 25 March 2026

ABSTRACT

The research was intended to find out to what extent Kenyan Sign Language can be moderated to enhance the use of residual hearing to promote verbal speech to learners who are hard-of-hearing. The study aimed to explore the effects of KSL on verbal speech development of hard of hearing learners in a School for improved academic performance in Kakamega County, Kenya. A case study research design was utilized for the research study. A standardized questionnaire and interview schedule were utilized to gather data. Pilot study was carried out at St. Antony School for the Deaf in Webuye, Bungoma County. Headteachers, deputy headteachers, and teachers of learners with HI were chosen based on random selection, as well as learners with HI were chosen from Kakamega County. The sample size consisted of one headteacher from the research school, one deputy headteacher, five class teachers from each of the five selected schools, and five learners with HI from each of the five classes, bringing to a total of 25 learners with HI. A total of 32 participants were sampled for the study. Both quantitative and qualitative methods were utilized in the research. Quantitative data collected was coded, analysed and presented through descriptive statistical techniques. The Statistical Package for Social Science (SPSS), version 26, was utilized in the research's quantitative methodology. Narrative approach and thematic approach were employed qualitatively. The results were displayed in form of percentages, frequency tables and charts. The outcomes revealed that teachers generally have a positive and fair perception regarding the verbal speech development of hard of hearing learners. The research concluded that teachers implement various instructional techniques utilized by teachers to improve the academic performance of learners with hard hearing. The research concluded that teachers encountered obstacles and difficulties that limit their efforts to enhance the academic performance of learners with hard of hearing. The Ministry of Education should develop and enforce policies that integrate KSL into the national curriculum, ensuring that all schools are equipped to teach and support hard-of-hearing learners. Teacher training programs should be revised to include comprehensive modules on KSL, instructional techniques, and the use of specialized resources. The Ministry of Education should also conduct regular assessments to identify gaps and provide targeted interventions.

Keywords: Teachers Perception, Verbal Speech Development, Academic Performance, Learners with Hard of Hearing

INTRODUCTION

Hearing loss has severe limitations on social interaction, academic excellence and economic independence of learners with hearing impairment; the deaf and hard of hearing (Gravenstede, 2009). Learners who are hard of hearing are those with residual hearing and can be enhanced using varied skills, modern assistive technology and speech training to improve on their hearing, speech and acquisition of new words to boost their social and academic performance in the school and at home. Hard of hearing learners needs an environment where they are exposed to verbal speech, practice listening, verbal speech using the newly learnt words, sounds, syllables and sentences. Additionally, the students exhibit grammatical mistakes in conversation and may exhibit a decline in verbal response while speaking with peers (Wafula, 2009).

Kenya sign language is mostly employed and is the preferred mode of communication in a school for the deaf. Kenya sign language has its language rules and practice which is completely different from English grammar and that negates the spirit of verbal language development to learners who are hard of hearing with residual hearing. According to a research by Howes (2002), linguistic barriers continue to cause poor performance academically to learners with HI compared to their hearing peers. Kenya sign language has its limitations on vocabularies hence limiting impartation of subject concepts during teaching/ learning session. Teaching learners with HI using Kenya Sign Language (KSL) in the special school for the deaf makes it rather difficult for verbal speech usage and development since they are used to signing instead of advancing use of residual hearing to better verbal language skills for daily use.

Learning to read and write English language is difficult to learners with HI because it copies the trend from spoken English grammar yet they are not privy to it (Mayer, 2008). The researcher is convinced that utilization of Kenyan sign language should be minimized to allow concentration on use of residual hearing by learners who are hard of hearing. The Signed Exact English (SEE) was once widely used to assist students in learning to read and write English language hence helped to improve learning of English grammar for improved academic performance in schools. This is not the case with KSL which is in use in most Schools for the deaf like Mumias School for the deaf. Signed Exact English requires that each word be translated into English language's grammatical structure.

Controversy arises when the subject matter could be misrepresented when KSL is in use because the textbooks are written in English grammar while the teacher lectures in a Kenyan sign language (Kimani, 2012). Although some SEE is used when teaching English to stress how to utilize the English structure correctly, there is a chance that students mix up the two separate structures, which may distort the information or the use of the same terminology. The teaching language and the testing language should ideally match for the learner to perform well in an exam.

Learners who have hearing loss and rely on spoken communication are considered hard of hearing (Chupina, 2011). WHO (2015) compares deaf people with severe hearing loss whose primary means of communication is sign language, and people with hearing loss and people with mild to profound hearing loss. To enhance social interaction, hearing-impaired learners need to stay in touch with their hearing peers. The more they interact with their peers with speech the more they learn new words, the more they get used to speaking verbally. Also, Kenya Sign Language, the primary form of communication in schools for deaf students, assimilates learners with profound hearing loss and causes them to lose previously learned language and spoken language skills. The researcher is consequently interested in finding out to what extent Kenya sign language affects the spoken language development of learners who are hard of hearing for improved academic achievement at Mumias School for the Deaf.

Nearly 90% of learners who are deaf in the USA are born to hearing families (Howes, 2002). Simultaneously, the American government has carried out various moderate approaches to address underachievement and lift financial efficiency by ensuring that all people completely partake in the country's monetary flourishing (Partelow, Brown, Shapiro & Johnson, 2018). Failure of learners with HI to achieve passing grades in examination is linked to lack of speech and has numerous additional educational implications in their future schooling for competitive job market ahead of them. According to DeSilver (2017), American students continue to perform academically worse than their classmates from other advanced industrialized countries.

The problems of learners who are hard of hearing are that it may take time for their individual difficulties to be identified, understood and solved for lack of communication. This subjects them to humiliations from parents, peers and teachers. In most cases their admission at school is always of lower grade compared to their chronological age of birth. This lowers their performances in class discussion for they appear bigger than their grade and achievement level. In USA currently, hearing impairment is detected at birth necessitating early intervention and placement immediately (Gargiulo, 2012).

Learners with HI are exposed to various dialects including yet not restricted to: Manually Coded English (MCE), American Sign Language (ASL), Kenya Sign Language (KSL) and verbal oral language (Chonjo, 2006). Hard of hearing learners can utilize their residual hearing to acquire adequate language skills; letter sounds, syllables,

word production, making of sentences, addition of word vocabularies and many others. These learners may not be able to access and use these language skills to a maximum in Mumias School for the deaf. They are fully occupied by many modes of communication of which, sign languages takes the lead until they forget even the little verbal oral language they knew before.

The research aimed to determine the degree to which hard-of-hearing students at schools for the deaf can be motivated to utilize their residual hearing to improve their speech and achieve better academic results. Besides the utilization of Kenyan sign language, the consistent practice of verbal speech is considered helpful for the sake of improved learning for a better academic performance of hard of hearing learners in schools.

Statement Of the Problem

Any language development is determined by exposure and consistent use of that language. To a larger extent, constant, persistent, consistent access, addition of new words and to practice the usage of those words makes one become knowledgeable, fluent and articulate of the same in that language. A learner who is hard of hearing in special schools for the deaf where Kenyan sign language is predominantly used makes them forget completely the little verbal language which was there. The utilization of Kenyan sign language makes residual hearing and use of verbal language disappear / forgotten. Reagan (2007); Raga, (2009) in earlier studies found that Kenyan sign language has limited vocabularies thus could be a possible limitation in offering sufficient instructional inputs and utilization of instructional materials by instructors.

Academic success is characterized by reasoning abilities that are developed from ideas, abstractions, mental images and comprehension. The utilization of Kenyan sign language as a mode of communication has some drawbacks, including inadequate vocabulary when compared to other forms of communication, especially English grammar. Any learner's educational level in Kenya is determined through standardized tests that are created and administered in the English language. Many people in schools, homes, and the greater society rarely use Kenyan sign language since they don't understand and can't sign back to communicate. Teachers of learners who are deaf and hard of hearing are not as proficient in KSL hence they are not able to impart adequate concepts to promote deeper understanding of the subject content (Kimani, 2012). This necessitates the need to enhance use of residual hearing to better vocabulary mastery and utilization of the same.

As of right now, the majority of schools for deaf learners with HI socialize, educate, and test their students using Kenya sign language, which is set and responded to using English grammar. This has a detrimental effect on how their academic performance turns out (Raga, 2009). The existing empirical literature has evidenced that study has been done on competency, grammar and adequacy of KSL but not on effects of KSL on verbal language development of hard of hearing learners for their improved academic performance in special primary schools for the deaf. Given this context, the researcher was motivated to conduct this research to ascertain the impact of KSL on the verbal language development of hard-of-hearing learners' academic accomplishment at specialized primary schools for the deaf in Kakamega County, Kenya.

LITERATURE REVIEW

Verbal Speech Development of Hard of Hearing Learners

Auditory feedback is important to all learners to necessitate purposeful speaking and understanding of any language and lack of it, is a disaster for meaningful academic performance. The speech and language development of hard-of-hearing youngsters has received attention recently. This is largely due to the misconception that KSL, which neglects children with hearing impairment, has solved the communication and educational issues of the severely deaf (the deaf). Children who are deaf appear to need treatment the most, and the majority of study effort has been focused on them (Wirz, 2001). It is now understood that even a moderate hearing impairment can have an effect on an individual's capacity for language comprehension, speech, and academic success. Children who are deaf are largely ignored in the public school system (ASHA, 2004). They frequently disregard the advice of qualified specialists because they think they can succeed in a regular classroom (Ertmer, 2010). For pupils who require hearing aids, the purpose of the elocution exercises is relative. As per the

Trezek and Malmgren (2005), students who are almost deaf should be taught to articulate words and sounds that are realistic versions of "normal" phonetic output.

Reagan (2007) asserts that the South Africa Sign Language (SASL) has contributed to the country's hearing-impaired learners receiving subpar education. In numerous ways, the condition of several languages of other ethnic groups in South Africa is similar to that of sign language, which is a minority language of the deaf in that country.

In Ghana and throughout African countries, learners with hearing loss perform poorly academically in schools (Dogoe-Torsu, 2011). In Nigeria, Ikonta and Maduekwe (2005) discovered that students with hearing impairments perform academically worse in special schools than their classmates in conventional inclusive schools. This is attributed to poor strategies and methods to provide a better ground for the learners with hearing loss to improve on their verbal language development. The learners with hearing loss can succeed in a school if effective mode of teaching of speech is adopted because learners have varied interests, abilities and learning needs (Dogoe-Torsu, 2011). Okebi (2013) suggests that for sub-Saharan Africa and other developing countries to enhance academic attainment of learners with HI, they ought to embrace supportive intervention by providing the learning inputs and necessary instruction strategies early.

The under-performance of learners with HI has been found to be largely caused by inadequate content delivery in Special schools for the deaf. In a research by Mulonda (2013) titled Situational Examination on the utilization of Sign Language in the education of the Deaf in Zambia: A Case of St. Joseph and Magwero Schools for the Deaf. The case study design was used in the investigation. Two schools made up the population, and 40 teachers and 40 students were selected as a sample from each of those schools. The survey uncovered that the numerous of the instructors working in the two Deaf institutions under investigation had never received thorough instruction in Sign language. Furthermore, it was discovered that from Grade 0 to Grade 4 in elementary school, sign language (mostly sign vocabulary) is taught, after which it is primarily utilized as a means of teaching.

It was uncovered that utilization of both signed English and sign language, and that they naturally code switch. The research also uncovered that one of the most significant issues was the need for more advanced instructional and learning resources, followed by the need for an increased number of specially educated teachers. Due to a lack of sufficient incentives for custom curriculum educators to continue working in the sector, teacher motivation was a problem. The educators were made weaker by having access to such extravagant goods, notwithstanding their importance to student learning. In an ongoing study, the researcher wants to know how teachers' use of teaching and learning resources affects learner's scholastic performance.

As per the National Council for Special Education assessment from 2009, some kids with mild to moderate hearing loss get advantage from oral interventions and make developmentally acceptable progress. When participating in oral programs and using their hearing, learners with significant hearing loss gain spoken language at just 50% the rate of hearing youngsters.

The goal of the oral education method is to develop discourse analysis, creative expression, and general language communication skills. Additionally, linguistic communication provides the best foundation for developing competency skills (Mayer & Wells, 1996, Perfetti & Sandak, 2000). If they can transition easily from addressed written forms of a similar language, learners with HI are expected to advance in discourse/language to reading and writing more effectively. It has been postulated that learners with HI may also develop spoken phonology to improve their learning capacity because the majority of young hearing children use phonological knowledge as a key method for reading texts (NCSE, 2009).

Deaf children who took part in oral programming continued to utilize present-tense vocalizations and gestures after the age of three, but they were unable to effectively communicate through language, according to a research by Nicholas and Geers (2007). Their hearing affliction had been examined on average at a year, and only a small portion of their expressive correspondence (about 33% of the time) was stated to be affected by conversation. The majority of discourse creations were impersonations rather than free-flowing conversations (Nicholas & Geers, 2007). This demonstrates unequivocally that without additional therapy, deaf adolescents would remain to lag behind in the development of their speech and language.

Graduate-tailored replies to various auditory oral instructions from American, Canadian, and Swiss parents offered subjective proof of successful educational results, as per the National Council for Special Education (2009). The majority of participants collaborate fundamentally in a common or hearing setting and to have normal to high proficiency levels. All of these tests were self-selected, despite the fact that they offer indicators of participant satisfaction with auditory language processing and have shown strong evidence of mainstreaming and age-appropriate reading comprehension. The offered summary information had a sentimental undertone. In these studies, the group also believed that participants would typically achieve substantial level competence abilities beyond those often shown in deaf students. No study offered standardized data to take into account while using audible language technologies for data collecting.

According to Marschark (2003), classroom accommodations are among the most crucial factors to take into account when evaluating the teaching and learning achievement of deaf children. Another study conducted in New York by Ainscow (2007) found that there would be no worthwhile learning without compelling correspondence. Since hard-of-hearing students begin using Kenyan sign language as soon as they enroll in a boarding school for the deaf, they frequently stop using verbal discourse and become solely sign language users. The goal of the current survey is to explore the extent to which KSL has an effect on the speech development of hard-of-hearing learners at Mumias School for the Deaf.

RESEARCH DESIGN AND METHODOLOGY

Research Design

The case study approach was utilized. According to Kothari (2013), truth-seeking calls for a focus on the current state of the problem, which justifies laying it out. Both qualitative and quantitative techniques were utilized to gather data in order to respond to enquiries on the evaluation's present state. It allowed the researcher to gather data, condense, display, and analyze what was happening in relation to the effect of Kenyan sign language on verbal speaking of hard-of-hearing learners in Mumias, Kakamega County in order to improve their academic performance.

Location of the Study

The Mumias School for the Deaf in Kakamega County form the study locale. This is one of the biggest deaf schools in Kakamega County selected for a case study because of the availability of both hard of hearing learners and the deaf. Due to the ease of contacting the respondents for the survey, the school's proximity to the researcher also makes it an excellent choice for the research.

Target Population

The research targeted 438 people, including learners with hearing loss and teachers (School Records, 2020). The target group consists of 409 learners with HL, 28 teachers, and the head teacher. According to the researcher, this sample is suited for the current study to determine how KSL affects hard-of-hearing learners who are new to the school for the deaf from home in their acquisition of written and spoken English grammar.

Sampling Techniques and Sample Size

Sampling Techniques

The teachers and learners from the school under study were selected using purposive sampling technique. The school was chosen because the researcher believed it could produce responses to the study's research questions. Teachers are familiar with the situation of hearing in capabilities and therefore, the researcher assumed that they are able to provide rich information on difficulties that students with hearing impairments face while attending the school. Teachers and learners with hearing impairment would be chosen at random from the chosen school. The willingness and cooperation of the respondents served as the basis for the selection of the respondents. A total of five learners from each of the four to eight classes, 5 teachers, the deputy were used by the researcher. The study used 32 respondents in total (Table 1).

Sample Size

This is a case study involving a school head teacher, a deputy head teacher, five class teachers from each of the five chosen classes, and a total of 25 learners with HI from each of the five classes (Table 1). A total of 32 people were nominated for this research. According to Gay (2009), a sample size of 20–30% is sufficient for a study of this kind. Above 20% of the teachers and students of Mumias School for the Deaf are represented in table 1

Table 1: Sample Size

Category	Sample
Headteachers	1
Deputy headteacher	1
Teachers	5
Learners	25
Total	32

Research Instruments

The study gathered information from both primary and secondary sources. Questionnaires, interview guides, and an observation schedule make up primary data. Secondary data can be found online, in books, and in journals. Each question on the questionnaire will be created to address a particular problem with the goal or research questions (Mugenda & Mugenda, 2003).

The researcher utilized questionnaires that included both closed and open-ended questions in order to compile the viewpoints on the participants in accordance with the review aims. The questionnaires involved two sections; the first of which contained segment data and the second section contained questions related to the review targets. Surveys ensure anonymity and clearly state what information is needed (Kombo & Tromp, 2009). The respondents' data were collected via surveys with a five-point Likert scale. Bias of any kind was removed from the questionnaires, and respondents' own words were used to answer. All study teachers and students with hearing impairment received questionnaires.

To assemble data from the deputy head teacher and head teacher; the interview schedule was used. The interview schedule was chosen with the intention of fostering relationships with the participants and allowing the researcher to attain complete and comprehensive data from them. The open-ended interview highlighted and unearthed information that surveys were unable to express. The data gathered during the interview complemented that from the surveys.

The researcher employed a structured observation schedule to collect more details about the physical facilities and students in the learning environment. It is suggested to use an observation plan rather than a questionnaire or interview schedule since it provides a more accurate picture of the situation being researched. Additionally, the data gathered using this manner paints a true picture of the situation on the ground (Creswell, 2003).

Pilot Study

A pilot study is a pre-testing strategy intended to gather first data on the operation of new study tools. Before beginning the main investigation, a pilot study was done at St. Antony School for the Deaf in Bungoma County. Three teachers and five students made up the piloting population and participate in the project. Due to its student population being comparable to that of the study school, the piloting school was chosen.

Validity

Before actually administering the study tools in the main research, reliability and validity of the study tools were tested to explore whether they address the research questions. The researcher then proceeds to gather data from participants in the research school. The suitability of the content utilized in the instruments were evaluated by

two special needs education professors who are knowledgeable in the field. Their suggestions and ideas were highly valued and included in the tools.

Reliability

Pretesting research instruments were done using a test-retest methodology, which comprised of administering the identical questionnaires to the similar group of participants twice, two weeks apart, and comparing the results. The two tests' respondents were disqualified from the final instrumentation. Cohen, Mahion and Marison, (2000) demonstrates how triangulating diverse data can make qualitative data robust and substantial by scrutinizing proof from the sources and incorporating it to create validation for themes.

Data Collection Procedures

The researcher interviewed the head teacher and his deputy at their convenient locations. The study used combination of the three languages; Kenya sign language, English and Kiswahili. Both open and closed-ended questions were included in surveys that teachers and learners with hearing loss filled.

The usage of any one of the three languages made it easier to communicate with any of the respondents since teachers and students who were unable to explain themselves clearly in one of the languages utilized another language for clarity. The researcher personally administered the questionnaires to teachers and learners with hearing impairments. The respondents were given room to ask any question related to the study before filling the questionnaires. The researcher watched as the questionnaires were being filled out and handed out as they are being collected in a setting that is similar to a classroom.

Data Analysis

Using descriptive statistical techniques, the quantitative data gathered through the surveys was coded, examined, and presented. To tabulate the data, tables, frequencies, and percentages were used. The SPSS software was used to carry out this. The information gathered from focus group discussion, open-ended questionnaire responses, and interviews was organized into different themes, with each theme receiving its own set of materials. For qualitative data, thematic analysis was used to examine the information acquired through the responses gathered.

Logistical and Ethical Considerations

Logistics in study refers to all of the tasks and activities that the researcher needs to perform in order to guarantee the study's successful conclusion. After receiving a letter of research authorization from Kenyatta University's graduate school, the researcher applied for research permission from NACOSTI. Then, in order to carry out the intended research at his or her school, obtain a research licence from the head teacher and the Ministry of Education, Kakamega County.

Research participants were given guarantees that the data they submitted would be kept confidential and used exclusively to further the investigation's goals. The participants were instructed not to reveal their names on the exploration tools in order to worsen the issue of obscurity.

The objectives of the focus and how its conclusions would benefit students with hearing impairments, particularly those who are hard of hearing at special schools for the deaf, were explained to all participants.

PRESENTATION OF RESEARCH FINDINGS AND DISCUSSIONS

Perception of Teachers on Verbal Speech Development of Hard of Hearing Learners

To determine the perception of teachers on verbal speech development of hard of hearing learners, teachers

were required to indicate the agreement level with various claims regarding verbal speech development on 5-likert scale from 1-strongly disagree to 5- strongly agree. The outcomes were exhibited in Table 2.

Table 2: Perception of Teachers on Verbal Speech Development of Learners with Hard of Hearing

Statements	SA		A		U		D		SD		Mean
	F	%	F	%	F	%	F	%	F	%	
Learners who are hard of hearing have challenges communicating with family members during early years of development before they are taken to school.	5	100									5.00
The introduction of Kenyan sign language at school gradually affects further development of speech and language of hard of hearing learners.			3	60.0	1	20.0	1	20.0			3.75
Learners who have profound level of hearing loss discourage the hard of hearing learners to continue speech and language within the school setting for communication.	1	20.0	1	20.0	1	20.0	1	20.0	1	20.0	3.25
The family has positive attitudinal influence on educational performance of learners with HI.	2	40.0	2	40.0			1	20.0			3.50
Co-operation between the hard of hearing and learners with profound hearing loss leads to active participation in the learning environment both group and class discussions.			5	100.							4.00
The use of Kenyan sign language provides communication and enjoyment among learners with HI in the learning environment.	5	100									5.00

Source: Field Data (2024)

The results in Table 2 established that teachers strongly agreed that learners who are hard of hearing have challenges communicating with family members during early years of development before they are taken to school," received unanimous strong agreement (100% SA) and a mean score of 5.00. This designates a widespread recognition among teachers that hard-of-hearing learners experience significant communication barriers at home before they receive formal education. Lack of efficient communication with family members might hinder the development of spoken and sign language abilities at this critical time for language development (Meadow-Orlans, Mertens, & Sass-Lehrer, 2023). These early communication difficulties emphasize how crucial early intervention and assistance are for helping hard-of-hearing youngsters acquire language and grow cognitively.

The introduction of Kenyan sign language at school gradually affects further development of speech and language of hard of hearing learners, as designated by a mean score of 3.75, with 60% agreeing (A), 20% undecided (U), and 20% disagreeing (D). This mixed response suggests that while many teachers see the introduction of KSL as beneficial for communication and learning, there is some concern or uncertainty about its impact on the further development of verbal speech. The introduction of KSL in schools provides hard-of-hearing learners with a vital mode of communication that can significantly enhance their capability to take part in classroom activities and socialize with peers (Wapling, 2023). However, some educators may worry that an emphasis on sign language might limit the opportunities and motivation for learners to develop verbal speech skills, especially if not complemented by speech and language training.

The outcomes displayed established that teachers have mixed response on learners who have a profound level of hearing loss discourage the hard-of-hearing learners from continuing speech and language within the school setting for communication.

This indicates an equal percentages of teachers (20% each) strongly agreeing (SA), agreeing (A), being undecided (U), disagreeing (D), and strongly disagreeing (SD). This variability suggests that there is no consensus among teachers on this issue. Some educators may observe that the presence of profoundly deaf learners, who primarily use sign language, might create an environment where hard-of-hearing learners feel less inclined to develop or use verbal speech. This can be attributed to the dominant mode of communication in the classroom being sign language, which may inadvertently lead to a lesser focus on verbal speech (Spencer & Marschark, 2019).

With a mean score of 3.50, the family has a positive attitude effect on the academic achievement of learners with HI. A majority of teachers (40% SA and 40% A) agree that family attitudes significantly impact the educational outcomes of hard-of-hearing learners.

This underscores the crucial role that familial support and positive attitudes play in encouraging speech development and overall academic performance. Family involvement provides emotional support, encouragement, and additional practice opportunities outside of school, which are vital for the speech development of hard-of-hearing learners (Calderon & Greenberg, 2021).

Further, co-operation between the hard-of-hearing and learners with profound hearing loss leads to active participation in the learning environment both group and class discussions," with a mean score of 4.00, indicates strong agreement (100% A) among teachers.

This unanimity highlights the perceived benefits of collaborative learning environments where hard-of-hearing learners can engage actively. Such interactions not only facilitate better social integration but also provide diverse communication experiences that can enhance both sign and verbal language skills. Cooperative learning encourages all students to participate and learn from each other, fostering a more inclusive and supportive classroom environment (Johnson & Johnson, 2019).

The utilization of Kenyan Sign Language provides communication and enjoyment among learners with HI in the learning environment, received the highest mean score of 5.00, indicating unanimous strong agreement (100% SA). This reflects a clear consensus among teachers that KSL is an effective tool for enhancing communication and enjoyment among hard-of-hearing learners.

The utilization of KSL in the classroom creates an inclusive atmosphere where all students can communicate effectively, thus promoting engagement and enjoyment in learning. This positive environment is crucial for the overall development of hard-of-hearing learners, including their speech development, as it encourages active participation and reduces feelings of isolation (Ndurumo, 2015).

In an interview with head teacher, it was noted that:

“Utilizing a multi-modal approach that incorporates both visual aids such as Kenya sign language and total communication, as well as auditory tools like hearing aids help cater to the diverse communication needs of learners with HI. By employing a variety of communication methods, teachers create an inclusive learning environment where every student's understanding is taken into consideration and addressed appropriately”.

Deputy head teacher noted that:

“Direct and meaningful communication is ensured by using KSL, a visual language designed specially to meet the requirements of those who are deaf or hard of hearing. Additionally, a more thorough approach to meeting the many communication requirements of learners with hearing loss is made possible by incorporating Total Communication, which blends multiple communication modalities like voice, gestures, facial expressions, and visual aids”.

Based on the observation schedule, most of the teachers have positive perception. Teachers acknowledge the unique needs and strengths of students with HI, valuing their individuality and diversity within the classroom. They demonstrate patience, empathy, and understanding when communicating with students with HI, fostering a supportive and inclusive learning environment. They encourage peer interactions and collaboration, promoting social inclusion and building positive relationships among all students in the classroom.

CONCLUSIONS

The research concluded that there is a positive perception among teachers regarding the verbal speech development of hard of hearing learners. Teachers acknowledge the importance of providing fair opportunities for these students to enhance their communication skills and verbal expression. Through implementation of inclusive practices and encouraging active participation, teachers aim to create a supportive learning environment that fosters the development of verbal speech among hard of hearing learners.

RECOMMENDATIONS

The research recommends that;

- i. The government and county governments should prioritize the integration of Kenyan Sign Language (KSL) in the education system to support the speech development of hard-of-hearing learners. This may be achieved by developing comprehensive policies that mandate the inclusion of KSL in teacher training programs and curriculum development. These policies should also ensure the allocation of sufficient funds for the provision of specialized instructional resources and technology, such as hearing aids, captioned media, and visual aids, essential for effective teaching and learning. In order to address the special requirements of hard-of-hearing kids and provide an inclusive learning environment, policy should also encourage small class sizes and individualized attention.
- ii. The Ministry of Education should develop and enforce policies that integrate KSL into the national curriculum, ensuring that all schools are equipped to teach and support hard-of-hearing learners. Teacher training programs should be revised to include comprehensive modules on KSL, instructional techniques, and the use of specialized resources. The Ministry should also conduct regular assessments to identify gaps and provide targeted interventions.
- iii. The Teachers Service Commission should guarantee that all teachers receive adequate training in KSL and other effective instructional techniques to support hard-of-hearing learners. This can be attained through continuous professional development programs and incentives for teachers who specialize in special needs education. In order to give hard-of-hearing learners more individualized attention and more assistance, the TSC should also try to lower class sizes. Additionally, the TSC must to support the supply of sufficient educational materials in schools and guarantee that educators have access to the equipment and technology required to support efficient instruction.
- iv. Stakeholders should work together to support the implementation of initiatives that improve the academic performance of learners with HI, including community organizations, private sector partners, and non-governmental organizations. These programs should focus on providing training for teachers in the use of KSL and other instructional techniques like demonstration and role play. Stakeholders can also contribute by donating or funding instructional resources such as TV programs with captions, interactive dramas, and specialized lighting systems that aid communication and learning. Engaging in advocacy efforts to raise awareness about the importance of KSL in speech development and encouraging community support for inclusive education initiatives is crucial.

REFERENCES

1. Ainscow, M. (2007). Taking an inclusive turn. *Journal of research in special educational needs*, 7(1), 3-7.

2. Calderon, R., & Greenberg, M. T. (2021). Social and emotional development of deaf children: Family, school, and program effects. *Oxford Handbook of Deaf Studies, Language, and Education*, 2, 188-199.
3. Chonjo, P. N. (2006). Language and learning: What role does the language of instruction play in learning? *Papers in education and development*, (26), 20-31.
4. Chupina, K. (2011). Constraints in access to assistive technologies--and communication-- for hard-of-hearing people in the Russian Federation and in Germany. *Disability Studies Quarterly*, 31(4).
5. Cohen, L.; Mahion, L. & Marrison, K. (2000). *Research methods in education* (5th Ed.).
6. Creswell, J. W. (2003). *Research design: Qualitative, quantitative and mixed methods approaches*, (2nd Ed). London: Sage Publishers.
7. DeSilver, D. (2017). US students' academic achievement still lags that of their peers in many other countries. *Pew Research Center*, 15.
8. Ertmer, D. J. (2010). Relationships between speech intelligibility and word articulation scores in children with hearing loss.
9. Gargiulo, R. M. (2008). *Special education in contemporary Society. An Introduction to Exceptionality*. New York: Thomson Wadsworth.
10. Gay, L.R., (2009). *Educational research: Competencies for analysis and application* (2nd ed.), Columbus: Charles E. Merrill, Publishing company.
11. Gravenstede, L. (2009). Phonological awareness and decoding skills in deaf adolescents. *Deafness & Education International*, 11(4), 171-190.
12. Howes, E. V. (2002). Learning to teach science for all in the elementary grades: What do pre-service teachers bring? *Journal of Research in Science teaching*, 39(9), 845-869.
13. Ikonta, N. R., & Maduekwe, A. N. (2005). A study of hearing-impaired students (in English language) in a conventional secondary school in Lagos state, Nigeria. *African Journal of Special Educational Needs*, 4(1), 28-39.
14. Johnson, D. W., & Johnson, R. T. (2019). Making cooperative learning work. *Theory into Practice*, 38(2), 67-73.
15. Kimani, C. W. (2012). *Teaching deaf learners in Kenyan classrooms* (Doctoral dissertation, University of Sussex).
16. Kombo, O. K. & Tromp, D. L. (2009). *Proposal and Thesis writing: An introduction*. Nairobi: Pauline Publishers.
17. Marschark, M., (2003). Interaction of language and cognition in deaf learners. From research to practice. *International Journal of Audiology*, 42:541-548.
18. Mayer, C., & Wells, G. (1996). Can the linguistic interdependence theory support a bilingual-bicultural model of literacy education for deaf students? *The Journal of Deaf Studies and Deaf Education*, 1(2), 93-107.
19. Meadow-Orlans, K. P., Mertens, D. M., & Sass-Lehrer, M. (2023). *Parents and Their Deaf Children: The Early Years*. Gallaudet University Press.
20. Mugenda, O. M. & Mugenda, A. G. (2003). *Research methods: Qualitative and quantitative approach*. Nairobi: University Press.
21. Ndurumo, M. M. (2015). *Exceptional Children: Developmental Consequences and Intervention*. Longman Kenya.
22. Nicholas, J. G., & Geers, A. E. (2007). Will they catch up? The role of age at cochlear implantation in the spoken language development of children with severe to profound hearing loss.
23. Partelow, L., Brown, C., Shapiro, S., & Johnson, S. (2018). Great education policy ideas for progressives in 2018. Center for American Progress. Retrieved from https://cdn.americanprogress.org/content/uploads/2018/03/27134210/7eduPolicy_Ideas-brief-2.pdf. (in English).
24. Raga, J. A. (2014). *Sign language and English language use: examination performance implications for deaf students at Kuja Secondary School, Migori County, Kenya*. Unpublished ME.d Thesis. Nairobi: Kenyatta University.
25. Reagan, T. G. (2007). Language-in-education policy in South Africa: The challenge of sign language. *Africa Education Review*, 4(2), 26-41.
26. Spencer, P. E., & Marschark, M. (2019). *Evidence-Based Practice in Educating Deaf and Hard-of-Hearing Students*. Oxford University Press.

27. Trezek, 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(3), 256-271.
28. Wapling, L. M. (2023). Deaf children as language learners: The strategies teachers use to support early language development in deaf children in Kenya (Doctoral dissertation, UCL (University College London)).
29. World Health Organization. (2015). *World health statistics 2015*. World Health Organization.