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University of Eldoret, Kenya, Mount Kenya University, Kenya, Chukwuemeka Odemegwu Ojukwu University, Nigeria, Kyambogo University, Uganda and University of Makeni, Sierra Leone

Contribution of Picture Communication Boards on expressive Language Skills of Learners with Hearing Impairment

*Oronge Evernate Adhiambo[1], Onditi Sharon[1] and Otara Alfred[2]
[1]Department of Educational Psychology and Science
Rongo University P.O Box 103-40404 Rongo.
[2]Department of Education Foundation and Management
Rongo University P.O Box 103-40404 Rongo.

***Corresponding Email:** evernateoronge@gmail.com

The most effective tool for human advancement is communication, encompassing the expressive aspect, which is crucial in various life aspects, demonstrating its importance in communication skills. Picture communication boards include sheets of symbolic presentation, letters, and real-life pictures that a learner may point to communicate with others. Guided by Albert Bandura's Social Learning Theory, the objective of the study was to determine the contribution of picture communication boards on the expressive language skills of learners with hearing impairment using a mixed-method approach within a descriptive survey design. The target population comprised 73 learners, 46 teachers, 7 headteachers, and 5 Educational Assessment and Resource Centre officers (EARCs), selected purposely. Quantitative data from the main respondents were collected through questionnaires and observation checklists. Simultaneously, interview guides were utilized to gather qualitative data from key informants. Quantitative data were analyzed descriptively based on means, frequencies, and standard deviation, and inferentially based on Pearson Correlation, presented in tables. Qualitative data were presented in narratives after thematic analysis. The study concludes that the utilization of communication boards enhances the expressive language skills of learners with hearing impairment through the use of pictures, charts, relevant books, and tables. The study recommends that the Ministry of Education, through the Directorate of Special Needs Education, should upscale the use of communication boards as a teaching aid for learners with hearing impairment.

Keywords: *Communication Boards, Hearing impairment, Special education, Expressive Language, Expressive Language Skills*

INTRODUCTION

Language ability, including the expressive aspect, is one of key determinants of communication (Efrina, Iswari, & Irwanto, 2018). Learners with Hearing Impairment have obstacles in conducting expressive language due to a lack of auditory experience. They experience academic struggles and social trouble while in school (Sammari & Naceur, 2022). Communication skills are crucial for social interaction, participation in activities, and refusal of undesirable items. Inadequate communication can lead to unhappiness and isolation, especially for learners with hearing impairments who struggle to understand the world and express personal needs (Seeto, Tomlin, & Dillon, 2021). Hearing impairment is a condition affecting one or both ears, resulting from improper function, formation, or damage to the outer, middle, inner, or brain-controlled ear (World Health Organization, 2021). A learner has hearing impairment if they cannot hear; ability that differs from normal hearing, requiring 20 decibels or better in both ears, which can be fluctuating or permanent (Chinaka & Osisana, 2020; World Health Organization, 2021).

Learners with hearing impairments face challenges in effective language development, which is crucial for success in all subjects and classroom comprehension (WHO, 2021). Hearing loss in children significantly impacts speech comprehension, language development, and social engagement, as hearing is crucial for communication and social engagement (WHO, 2020), such impacts may cause academic challenges such as reading difficulties, and poor spelling and writing abilities, reducing educational and vocational performance.

Communication Boards are picture symbol boards that support interactions between a learner and or an adult to make comments, requests, or give directions to each other. They may be included in Charts, Books, Tablets, and Smartphones (Caron, Light & McNaughton, 2022). Pictorial boards, featuring pictures and symbols, aid learners struggling with communication by linking them to language and encouraging requests, turns, and comments, thereby empowering them to communicate effectively (Atis, Dhillon, Maichel, Soto, & Vergara, 2022). Communication boards, including physical and digital devices, are used to communicate to people with disabilities (Hiryanto, Hersinta, Tony, Angelina, Jonathan, & Gavrilla, 2024).

To realize the goal of '*Education for All'* and the implementation of the provisions of the Constitution of Kenya (2010) and the Vision 2030; the Government of Kenya recognizes the importance of supporting Special Needs Education. The National Special Needs Education Policy Framework (2009) put forth a comprehensive strategy and policy geared towards creating advocacy and awareness, improving the curriculum, incorporating technology, and providing teacher training to enhance special education and facilitate better educational practice for learners with hearing impairment (Bhandari, 2022). Communication boards are useful for learners with hearing impairments (HI) to express their needs, make choices, and anticipate future events. However, these boards often present challenges, such as limited vocabulary, poor sentence structures, and difficulty in conversation. This study aims to investigate the contribution of communication boards on the expressive language skills of learners with hearing impairment.

LITERATURE REVIEW

To improve communication and instruction for learners with hearing impairment, visually rich learning environments with instructional aids should be incorporated, including pictures, illustrations, artifacts, slides, computer graphics, films, overhead projects, bulletin boards, computers, and televisions. Limited auditory hearing impairment affects social communication and self-expression (Alsayedhassan, Lee, Banda, Kim, & Griffin-Shirley, 2021). Communication Boards are, therefore, an alternative form of communication for expressing thoughts, ideas, and needs that are not understood through speech. They are used as a means of communication to acquire skills that make it possible to interact with the environment (Cano, Sandra and Collazos, César, & Flórez-Aristizábal, Leandro & Moreira, Fernando, 2019). Learners with hearing impairment face major challenges in education, health, culture, and social. Such learners, especially those lacking hearing aid should learn to communicate through sign language. People surrounding learners with hearing impairment face challenges when learning Kenyan Sign Language; it is too difficult and too expensive to learn, and institutions, where parents can learn, are scarce (Luchivya, Omolo, & Onditi, 2022).

Even though Sign Language is complex in terms of its grammar and syntax, it allows access to information in a natural way and the expression of opinions, desires, and abstract thoughts (Andrews & Baker, 2019). The most common communication mode for learners with HI is the Sign Language, but very few people use it. They may lead to discrimination because of the status

of the language as a minor linguistic (Hoffmeister & Wilbur, 2017). Learners with hearing impairment often struggle with sign language, influenced by the natural language spoken by their parents. This is particularly concerning as effective communication is crucial for their academic and social progress. Visual tools, such as pictures and pictograms, aid in their understanding and response. In this context, picture communication boards prove to be highly effective for learners with communication deficits (Heslop & Mophosho, 2021) having a significant association between language gesturing skills and social competence in children (Wieczorek, DeGroot, Madigan, Pador, Ganshorn, & Graham, 2024).

Janice, David, Chris, Dana, and Godfrey (2019) suggested strategies at Pennsylvania State University to enhance communication capacity for individuals with complex needs, emphasizing the importance of Communication Boards in enhancing expressive language skills and aiding Hearing Impairment access. A study by Hakan and Pursun (2021) in Turkey found that learners with hearing impairments are enthusiastic about ICT use, and teachers with ICT knowledge can effectively utilize computers, projectors, and smartboards in education (Da Costa, Berkenbrock, De Freitas, & Sell, 2019). Peng and Daud (2015) also noted that, despite inclusion of ICT in the classroom for learners with HI being complicated, it is crucial because their nature of learning is visually oriented. ICT tool is a key element in knowledge acquisition, differentiating, personalizing, and co-teaching learners with hearing impairment, improving their language skills (Ouazza, & Bellamqaddam, 2020), and offering the opportunity to work on texts, sounds, images, and all merged.

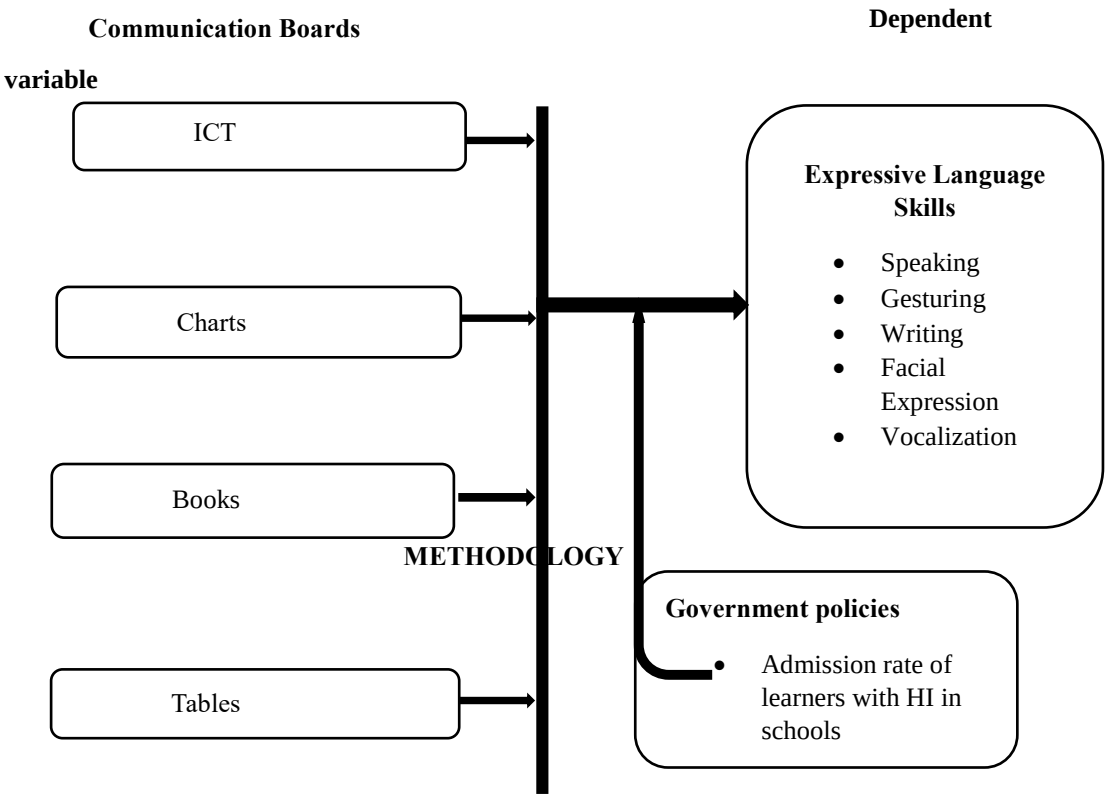
A study done by David, Kiose, and Tzelepi (2023) found that Charts, as visual aids; assist learners with hearing impairment in understanding strategies, concepts, and memory, serving as visual reinforcers, memory aids, and independent learning tools, enabling them to grasp and apply colourful details. Visual materials like tables are more effective than using only the sign language not containing any visual item in teaching vocabulary to learners with hearing impairment (Birinci & Saricoban, 2021). In enhancing classroom-based communication instruction for learners with hearing impairment, Geist, Erickson, Greer, and Hatch (2020) found that many learners with hearing impairment have communication needs and are unable to express themselves using speech, sign language, or other symbolic forms. Therefore, teaching and non teaching staff can use communication boards (Antunes & Rodrigues, 2021; Heslop & Mophosho, 2021) as beneficial tools for learners with hearing impairment; they serve as visual reinforcers, aids in concept clarity, memory aids, and aid in independent learning (Saravanan, Subramani, Rajaramon, David, Sajeevan, Sujith, & Solomon, 2023). Utilizing book-reading strategies also enhances language and communication skills in young children (Jeremic, Stojanovik, Burgoyne, & Pagnamenta, 2023).

Theoretical Framework

The study employed the Social Learning Theory by Albert Bandura (1977). Social learning theory is a personal learning approach that emphasizes the importance of context and active information processing in education. It focuses on the role of humans as active information processors, allowing individuals to learn through observation, imitation, and modelling from their social environment. The theory consists of four components: attention, retention, symbolic representation, and conversion. Picture communication boards, or Physically Exchanged Pictures, are practical applications of this theory, requiring attention, retention, and conversion. These boards allow teachers and learners with hearing impairments to engage in natural social behaviour, contributing to expressive language skills. The theory supports the use of simulations, gamification, and role-play to facilitate learning through observable scenarios and rewards.

Conceptual framework

The study was based on the understanding that communication boards contribute to the expressive language skills of learners with hearing impairment. This impact can be either positive or negative. The conceptual framework is structured around the relationship between various variables: dependent variable- expressive language skills, which are manifested through speaking, gesturing, writing, and facial expression; independent variables- ICT, charts, relevant books, relevant tables; intervening variables- government policies, including learners' admission rates and teacher-pupil ratios. This framework outlines how communication boards, moderated by government policies, contribute to the development of expressive language skills in learners with hearing impairment.



The study used a descriptive survey design. The target population was 73 grade 6 learners with Hearing Impairment in 7 special needs' primary schools within Migori County, 5 Educational Assessment Resource Centre Officers (EARC) from the 5 sub-counties with schools for the HI learners, 46 teachers and 7 heads of institutions in the special needs' primary schools in the County, a total study population of 131 (MOE Migori County, 2023) representing the broader population, pertinent to the research and in line with the goals of the study (Newman & Gough, 2020; Tashakkori, Johnson, & Teddlie, 2020).

The study utilized total population sampling, a purposive sampling technique, to examine the entire population based on its unique characteristics and size (Lakens, 2022). The study involved all grade 6 learners with hearing impairments in special schools in Migori County, their teachers, heads of institutions, and officers of the Educational Assessment Resource Centre in the sub-counties where these schools were sampled.

Instruments

The study utilized a questionnaire for primary respondents (teachers) and interview guides for qualitative data from key informants, including heads of institutions, and EARCs, to gather views, attitudes, and opinions (Barrett & Twycross, 2018). Observation checklists were used to assess learner's expressive language skills, using picture communication boards. Experts in Educational Psychology reviewed and assessed research instruments for face and content validity, relevance, clarity, appropriateness, adequacy, and applicability to research questions. They adjusted instruments based on pilot study feedback, amended unclear items, and discarded non-functioning ones. (Svoboda & Guetterman, 2023). In ensuring that the instruments were reliable, the researchers employed internal consistency reliability (Smith & Johnson, 2021). The Spearman Rank Order Correlation coefficient (Rho) formula was used to establish reliability in both tests.

Table 1: Reliability Test results

n=	10	Sum Var =	7.8641							Alpha= 0.8493
Var	R1	R2	R3	R4	R5	R6	R7	R8	R9	R10
1	4	3	5	1	5	3	4	2	5	1
2	0	5	3	2	4	2	3	5	2	1
3	1	4	2	1	2	5	3	3	5	3
4	5	3	2	1	3	2	4	3	1	2
5	4	3	2	2	1	4	3	1	2	4
6	1	5	3	2	3	4	1	4	5	4
7	3	2	1	2	1	3	3	3	3	1
8	1	2	3	4	3	5	3	4	4	5
9	3	2	1	3	1	4	2	1	2	3
10	2	2	2	1	3	1	2	1	2	2
Reliability coefficient= 0.8493										

Sum of variance= 7.8641

n=10

n= number of items
r-bar= average inter-item correlation among the items

As the average inter-item correlation increases, so does Cronbach's alpha. This makes sense intuitively: if the inter-item correlations are high, then there is evidence that the items are measuring the same underlying construct. The data yielded a reliability coefficient of .849. A reliability coefficient of .7 or higher is considered acceptable in most Social Science applications (Bujang, Omar, Foo & Hon, 2024).

Data Collection and Analysis

The researchers sought approval from National Commission for Science, Technology and Innovation (NACOSTI) to conduct the data collection. Once authorized, the researchers explained the study's objective to the participants and ensured their privacy. They provided a time frame of one, two, or three days for distributing and retrieving the questionnaires. To maintain high response rates, the researchers utilized the drop-and-pick method to collect the completed questionnaires.
To simplify the scoring process, the researchers divided the characteristics of interest into categories on the classroom observation checklists (Hughes-Lika & Chiesa, 2022). Participants were given informed consent letters and had the option to withdraw at any time. Interviews were conducted with key informants to gather qualitative data. Participants had 20-30 minutes to answer interview questions. Quantitative data was analyzed using descriptive and inferential statistics while qualitative data from the interview guide with the EARCs and heads of institutions was analysed thematically using the *Six Steps* by Braun and Clarke (2006). Factors measured included ICT, charts, relevant books, tables, and the expressive aspect of communication.

Findings

The study sought to establish the contribution of communication boards to the expressive language skills of learners with hearing impairment. The respondents were probed on aspects of the communication board on expressive language skills of learners with hearing impairment and requested to express their level of agreement or disagreement with the following statements. The responses are presented in Table 2.

Table 2: *Communication Boards on Expressive Language Skills of Learners with HI*

Aspect of Communication Board on Expressive Language Skills of Learners with HI	**Ratings**					
SD1	**D2**	**N3**	**A4**	**SA5**	**M**	
	SD					
The use of ICT in the Classroom enables HI learners to Develop expressive Language skills	0(0%)	1(2.7%)	1(2.7%)	12(32.4%)	23(62.2%)	4.54	.691

The use of Charts in the classroom enables HI learners to develop expressive language skills	0(0%)	0(0%)	1(2.7%)	15(40.5%)	21(56.8%)	4.54	.558
The use of Relevant books in the classroom enables HI learners to improve their expressive language skills	0(0%)	2(5.4%)	2(5.4%)	16(43.2%)	17(45.9%)	4.30	.812
The use of relevant tables in the classroom enables HI learners to improve their expressive language skills	0(0%)	1(2.7%)	11(29.7%)	12(32.4%)	13(35.1%)	4.00	.882
Gesturing is well articulated by HI learners as a sign of competence in expressive language skills	0(0%)	2(5.4%)	1(2.7%)	20(54.1%)	14(37.8%)	4.20	.760

Table 2 shows that 23(62.2%) respondents strongly agreed that 'the use of ICT in classrooms enabled learners with hearing impairment to develop expressive language skills. It was supported by a mean rating of 4.54 and a standard deviation of .69. The findings were in line with sentiments made by the key informants, of whom one said,

ICT is a valuable tool for learners with hearing impairment, providing a comprehensive knowledge framework, including communication, illustration, and animation. 21st-century teachers should incorporate ICT in their teaching to help learners understand concepts, develop expressive language skills, and ease communication. This allows learners with hearing impairment to develop cognitive, psychomotor, emotional, and interaction potential, promoting their overall well-being and enjoyment. [HT, 5]

The sentiments of HT 5 imply that the use of ICT in class facilitates the learning of expressive language skills among learners with hearing impairment. Similar sentiments were echoed in an interview with EARC 1, who said that,

ICT aids learners with hearing impairment in overcoming educational barriers like speech deficiencies, promoting active participation, equal rights, and language skill development. However, in Migori County, more digital tools and computers are needed for these learners. Teachers need more knowledge and education to integrate ICT into their curriculum, as this makes it impractical for these learners. [EARC, 1]

The study found that incorporating ICT into the classroom for learners with hearing impairment significantly improved their expressive language skills. Researchers found that charts were particularly helpful in helping learners with hearing impairment understand and apply colourful details in reading, writing, and conversations. HT 6 supported this use of charts.

Charts, also known as talking walls, offer visual evidence of learning over time. Teachers are ready to assist in creating these charts, fostering a strong connection between learners with HI and teachers, thereby enhancing interactive learning and expressive language skills. [HT, 6]

In the views of HT 6, charts are visual learning tools that support the understanding of content, allowing collaborative thinking among teachers and learners. In support of this, a correspondence had this to say:

Charts aid learning by providing visual memory aids, empowering learners with hearing impairment to become independent, and allowing quick refreshers. They encourage collaboration, build confidence, and foster ownership and contribution in the learning process, promoting expression and socialization in return. [EARC, 3]

The EARC 3 confirmed that charts help learners with hearing impairment improve their expressive language skills and boost confidence during lessons. A majority of respondents, 45.9 percent, 43.2 percent, and 89.1 percent agreed that using relevant books in the classroom helps learners with HI improve their expressive language skills. The use of relevant books in the classroom was endorsed by a high mean rating of 4.30 and a standard deviation of .812.

According to the study, the use of relevant books in the classroom aids learners with hearing impairment to improve their expressive language skills, with respondents giving it a high rating of 4.30 with a standard deviation of .812. HT 4 expressed:

Language and communication skills in children develop through learning symbols and rules, increasing vocabularies through relevant books. However, stakeholders need to provide books for learners with hearing impairment at schools, as they are unavailable for purchase, making it difficult to help them develop Expressive Language skills. [HT, 4]

HT 4 emphasizes the importance of educational resources like animated movies, interactive stories, and digital games for learners with hearing impairment, while the study also suggests that relevant books can enhance their expressive language skills. In a contrary opinion, EARC 5 had the following to say:

Strategies for book reading with learners include facial expressions, body posture, and physical prompts to illustrate characters and maintain attention. The reader must ensure sufficient signing space and good eye contact. [EARC, 5]

EARC 5 emphasizes the importance of book reading strategies for the expressive language skills development of learners with hearing impairment, emphasizing the need for adequate availability of books and considering learners' experiences with books across all learning areas.

The majority of respondents (35.1%) in Table 4.2 strongly agreed that using relevant tables in the classroom helps learners with hearing impairment improve their expressive language skills. Additionally, 32.4 percent agreed, and a total of 67.5 percent were positive that relevant tables in classroom improve expressive language skills. The respondents supported this practice with a high mean rating of 4.00 and a standard deviation of .882, and an EARC 4 provided a general comment on the use of tables.

Most teachers handling learners withhearing impairment do not do it right. They tend to fill an entire day with contact teaching, which is tiring. Time table rearrangements and adherance to the schedule slightly make a big difference to the learners with hearing impairment. [EARC, 4]

In the view of EARC 4, the use of tables enhances expressive language skills.

The majority of respondents (37.8%) of respondents agreed that expressive language such as gesturing is well articulated by learners as a sign of competence in expressive language skills, suggesting the need for more advocacies. The mean rating for awareness on these constructs is 4.20, with a standard deviation of .760. In support of the use of gesturing by learners with Hearing impairmentas a sign of competence in expressive language skills, HT 3 echoed gesturing by learners with hearing impairment as a sign that they can express themselves. They tend to gesture as they show the respective signs of gestures. Teachers should accompany sign skills with gestures.

Table 3: Analysis of Observation Checklist Results on Communication Boards

Aspect of communication boards on expressive language skills from observation checklist	**Ratings**					**M**	**SD**
	Never	***Seldom***	***Often***	***Sometimes***	***Always***		
Any ICT usage	0(0%)	0(0%)	0(0%)	5(100%)	0(0%)	4.0	.000
Charts usage	0(0%)	0(0%)	0(0%)	1(20%)	4(80%)	4.80	.947
Relevant books usage	0(0%)	0(0%)	1(20%)	1(20%)	3(60%)	4.40	.894
Relevant tables usage	0(0%)	0(0%)	0(0%)	2(40%)	3(60%)	4.60	.548
HI learners well articulate appropriate gesture	0(0%)	0(0%)	1(20%)	2(40%)	2(40%)	4.20	.837

Key: N – Never, S – Seldom, O – Often, ST – Sometimes, A – Always

Table 3 shows that ICT usage was put into practice sometimes (100%). The researchers also observed that in most cases, there was always usage of charts (80%), relevant books (60%), and relevant tables (60%) (Kathari & Garg, 2020). With the high mean rating of 4.0, 4.40, 4.60, and 4.20, respectively, there is enough statistical evidence that if the various aspects of communication boards are used, then it will lead to a corresponding enhancement of expressive language skills in learners with hearing impairment.

Overall correlations of the aspects of communication boards were determined on expressive language skills of learners with hearing impairment. The findings are presented in Table 4.

Table 4: ***Overall Contribution of Communication Boards on Expressive Language Skills***

Independent Variable	Inferential Statistical Test	Correlation with Gesturing is well articulated by Learners is a Desired Expressive Learning Skills
Contributions of Communication Boards	Pearson Correlation	.408
	Set Sig. (2-tailed)(α)	.05
	Observed P value	.200

Quantitative findings established in Table 4 show the overall contribution of communication boards on the expressive language skills of learners with hearing impairment. The findings show that when alpha (α) was set at .05, there was a positive and moderate contribution of communication boards on expressive language skills of learners with hearing impairment. Applying the Pearson correlation to establish this correlation, the results indicated a moderate and positive contribution (r = .408) of the use of communication boards on expressive language skills of learners with hearing impairment if the teachers can put this into practice. There was, however, not enough statistical evidence (P = .200, >0.05) to claim a significant contribution in the larger population based on the sample that was used, implying that, though there was a positive contribution of communication boards on expressive language skills of learners with hearing impairment, the contribution was moderate and mild.

DISCUSSION

In this study, communication boards featured Information and Communication Technology (ICT) usage, charts, relevant books, tables, and use of gestures about expressive Language skills of learners with hearing impairment. Through ICT, learners with hearing impairment can learn words that are not necessarily discussed in class. The sentiments concur with the findings of Hakan and Pursun (2021) in Turkey, who found that learners with hearing impairment are positive about ICT use during their learning. ICT in class not only serves as a learning resource but also motivates learners with hearing impairments to stay active and focused on classroom activities. This active participation in the learning process helps develop language skills, as learners with hearing impairments actively participate in the learning process. The use of ICT is a real opportunity to facilitate the success of the learners with hearing impairment in their learning and communication (Kombo & Tromp, 2008). The United Nations states that ICT should be integrated into the education system for learners with hearing impairment, allowing them to learn at the same pace as their peers, thereby fostering creativity, understanding, and expression through collaborative work and interaction. While findings show that the use of ICT is important, its inclusion in the classroom is complicated because the nature of learning to access information is visually oriented (Ouazza, & Bellamqaddam, 2020).

Charts are beneficial tools for learners with hearing impairment as they serve as visual reinforcers, aids in concept clarity, memory aids, and aid in independent learning. These tools help learners grasp and apply colourful details in reading, writing, and conversations, making them valuable tools for their education (Saravanan et al., 2023). It emerged that the usage of charts enhances independent learning. The sentiments concur with Geist, Erickson et al. (2020) USA that Many learners with hearing impairment have communication needs, unable to express themselves using speech, sign language, or symbolic forms. Teachers and non-teaching staff may use communication boards like charts to facilitate learning.

Findings also demonstrated that books play an important role in enhancing the expressive language of learners with hearing impairment (World Health Organization, 2021). This is true because utilizing book-reading strategies enhances language and communication skills in young children (Jeremic et al., 2023). The study indicates that expressive language skills can be developed through reading, highlighting the importance of teachers using books during lessons.

The use of relevant tables was found to have an impact because they enable learners with hearing impairment to improve their expressive language skills (Atis et al. (2022). It is imperative that when tables are used in classrooms of learners with hearing impairment, their expressive language skills are developed. Tables support the use of other resources, such as pictures, to help learners acquire expressive language skills. The findings supported that of Birinci and Saricoban (2021) who stated that visual materials like tables were found to be more effective than using only the sign language not containing any visual item in teaching vocabulary to learners with hearing impairment. Atis et al. (2022), on the other hand, confirmed that, when utilized with other technologies, expressive language skills are developed.

Lastly, the use of gestures has a significant contribution. In essence, there is a significant association between language gesturing skills and social competence in children (Wieczorek et al., 2024). Gesturing is a valuable tool for teaching learners with hearing impairment sign language and other resources in class. It is crucial for teachers to use sign language and note that gesturing is well-articulated by learners, indicating their competence in expressive language skills.

Though teaching-learning resources are expensive to acquire, stakeholders in schools of learners with hearing impairment should strive to avail the resources as it is clear that the use of resources like books influences the development of expressive language skills. However, Antunes and Rodrigues (2021), in contrast, deduced that learners with hearing impairment and others with diverse communication functions, linguistic complexity, and learning contexts might equally adapt well to Picture Communication boards in structured contexts. However, the contrary opinions could have been due to differences in respondent's characteristics because the studies were carried out in developed countries.

The study suggests that effective use of communication boards can significantly improve the expressive language skills of learners with hearing impairment, as they enhance their access to various components of oral language and provide a more comprehensive learning experience (Janice et al., 2019). This enables learners with hearing impairment to develop and improve their Expressive language skills. Similarly, Caron, Light, and McNaughton (2022) established that communication boards support interactions between a learner and or an adult to make comments, requests, or give directions to each other. Communication boards may be included in charts, books, and tablets in smartphones (Caron, Light, & McNaughton, 2022).

CONCLUSION

The study concludes that using communications boards in the classroom can improve expressive language skills for learners with hearing impairments. Displaying complex ideas using pictures and writing directly on the charts act as a collaborative effort for both learners with hearing impairment and their teachers;

The use of ICT in the classroom enables learners with hearing impairment to develop expressive language skills. Integrating ICT in the classroom provides significant benefits for the

development of expressive language skills in learners with hearing impairments, addressing their unique needs and facilitating more effective communication.

Use of charts in the classroom enables learners with hearing impairment to develop expressive language skills. Charts provide clear and accessible visual representations of information, which can significantly enhance the learning experience and aid in the development of expressive language skills.

Use of relevant books in classroom enables learners with hearing impairment to improve their expressive language skills. Using appropriate and engaging books tailored to their needs can significantly enhance their expressive language skills. These books provide a structured and rich source of language input that can be adapted to support the unique challenges faced by hearing-impaired learners.

Use of relevant tables in the classroom enables learners with hearing impairment to improve their expressive language skills. Tables are valuable educational tools that significantly aid in the learning. They provide clear, organized visual representations of information, which can enhance comprehension and support the development of expressive language skills. Using relevant tables in the classroom can help learners with hearing impairment structure their thoughts, improve their understanding of complex information, and communicate more effectively.

The study recommends that the Ministry of Education, through the Directorate of Special Needs Education, should upscale the use of communication Boards as a teaching aid for learners with hearing impairment. This is based on evidence demonstrating that communication boards can effectively support the development of expressive language skills and overall communication abilities in learners with hearing impairment.

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