

Exposing Lower Primary Pupils with Hearing Impairment to Sign Language: The Disconnect between Home and School

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How to cite: Olatunji, S. O., & Salami, I. A. (2026). Exposing lower primary pupils with hearing impairment to sign language: The disconnect between home and school. *Porta Universorum*, 2(7). <https://doi.org/10.69760/portuni.26070002>

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ABSTRACT

Pupils with hearing impairment, especially those with post-lingual hearing loss, arguably possess the same capacity to learn language as their hearing peers, and share the same desire to communicate with them. However, an infant with congenital or early-onset hearing loss whose parents find it difficult to learn conventional sign language, and who therefore resort to local sign language as a mode of communication, may become alienated from the sign language used by teachers in school. Any discrepancy between the communication modes of parents and teachers can hamper the smooth education of the child. This study examined the extent of the differences between the sign language used at home and in school, and the challenges these differences pose to the holistic development of lower primary pupils with hearing impairment. The study adopted a descriptive research design. Seventy-five respondents — fifteen special teachers, thirty lower primary pupils with hearing impairment, and thirty parents of the pupils — were selected. Two self-designed questionnaires, the Sign Language Use by Parents Questionnaire (reliability 0.97) and the Sign Language Use by Special Teachers Questionnaire (reliability 0.82), were used to collect data. It was found that the sign language commonly used at home is non-conventional, whereas schools use conventional sign language to communicate with lower primary pupils with hearing impairment. Recommendations were proffered based on the findings.

Keywords: Pupils with hearing impairment; home and school sign language; special teacher; conventional sign language; non-conventional sign language

1. INTRODUCTION

Language is one of the most important instruments of human interaction and communication. It allows people to share emotions, thoughts, and dreams, and to transfer culture and knowledge between generations. Randy (2017) notes that language is rich and dynamic, designed to fulfil the requirements of human imagination, and that it can be used in multiple ways — teaching, describing events or people, reminding people of what has already happened, or warning them of danger. Communication, by contrast, is the exchange of messages among people, whether orally or non-orally. Although language is the means of conveying meaning, communication is the action or result of applying that means. It is

therefore possible to use both verbal (spoken) and non-verbal (gesture-based) forms of language. The non-verbal type — the use of body language, hand gestures, and facial expression — is especially important for those with hearing impairment and is commonly known as sign language (Randy, 2017).

The predominant mode of communication used by deaf people is sign language. Conventional sign language is an organized system of signs that acquires its role through linguistic convention; like spoken languages, conventional sign languages possess the same linguistic characteristics and serve the same cognitive and communicative functions. Baker (2000) pointed out that acquisition processes among children that are not based on a standard language are harmful to appropriate linguistic growth. Differences between the home-based and school-based use of sign language can consequently cause inconsistencies that adversely influence the educational and social growth of children with hearing impairment. Berke (2019) noted that many children with hearing impairment have trouble naming family members or communicating in the simplest ways using standard sign language, which can easily lead to educational backwardness and social isolation. Her argument is that parents and family members should treat the learning of conventional sign language as a second language of importance within the home setting.

The home environment is a crucial factor in the initial linguistic exposure of children with hearing impairment. However, most children with hearing impairment are born into hearing families that are not proficient in conventional sign language. According to Bloese and Joseph (2017) and Madden (2019), communication gaps are caused by the lack of sign-language proficiency among many parents, which prevents them from communicating with their children. Similarly, the National Institute on Deafness and Other Communication Disorders (NIDCD, 2016) reported that more than 90 percent of children born with hearing impairment are born to hearing parents. This calls on parents — and mothers in particular — to learn and apply sign language to ensure that proper communication and integration take place in both the home and school environments. As proposed by Siegel (2000), children with hearing impairment should be provided with language-rich environments and communicatively competent partners able to interact meaningfully at an adult linguistic level. The importance of the family, and especially of mothers, in modelling and reinforcing conventional sign language at home therefore cannot be overestimated (Berke, 2019).

Intellectual and cognitive abilities are advanced in children with hearing impairment when they are exposed to conventional sign language at an early age. According to Odusanya (2006), early learning of sign language plays an important role in the rapid development of intellectual skills and mental abilities. Children who do not experience sign language at an early age are likely to have deficits in language development, academic performance, and social ability. Early home intervention in the use of sign language is therefore important to long-term academic success, social adjustment, and essential communication with parents, peers, and teachers.

Nevertheless, many families with children affected by hearing impairment create local or home sign languages as an alternative to conventional systems. Ezema (2013) defined local sign language as a means of communication developed at the family level to address urgent communication requirements. These domestic signs are usually specific to individual families and may not be comprehended within the wider community. Home signs typically evolve when the child with hearing impairment is the only such member of a family, resulting in isolated communication systems that vary between households. Although local signs are useful in the short term, they may limit children's interaction with peers and teachers in formal learning conditions. Children in hearing families tend to use such systems, which differ from the formal sign language used at school, leading to communication errors between the home and school environments (Susan, 2019; Bloese & Joseph, 2017).

Home and school sign languages are relatively different, and this difference affects the linguistic, cognitive, and social performance of children with hearing impairment. Children often employ natural, localized sign languages at home, adapted to fit family communication (Pereira, 2022). Even unofficial signs that help families understand each other may be created or adjusted by family members (Fitrananda & Affandi, 2024). By contrast, standardized sign languages tailored to reflect the grammatical framework of the spoken national language are commonly used in schools, where they are incorporated into the curriculum to bridge the gap between oral and visual modes of communication (Van Metre & Maxwell, 1981; Fitrananda & Affandi, 2024). Such discrepancies in linguistic structure and cultural acclimatization may create communication barriers for children who transition from the home to the school setting. Schools may also possess additional resources and qualified teachers to communicate in standard sign language, whereas families rely on unstructured, informal approaches (Pereira, 2022). Home–school cooperation is therefore critical to guarantee consistent language exposure and to support the full development of deaf children (Murray et al., 2019).

The variations between home and school communication practices ultimately affect the performance of pupils with hearing impairment. Similarity in the use of sign language across settings allows pupils to better understand the language, engage their minds, and participate in the classroom, whereas dissimilarity may create confusion, reduce motivation, and produce poor outcomes. Children with hearing impairment gain confidence and achieve higher academic performance when they succeed in communication at both home and school; conversely, a recurring breakdown of communication may compromise their efficacy expectations and result in reduced academic involvement. The communicative competence and learning performance of children with hearing impairment are thus dictated by the involvement of both home and school in the regular use of sign language.

1.1 Statement of the Problem

Previous research on the poor performance of pupils with hearing impairment has focused mainly on the instructional strategies and resources that can be used to teach these pupils effectively. The research literature on the variations between the particular forms of sign language practised at home and at school, and on the effect of these variations on communication and learning among pupils with hearing impairment — especially in Nigeria — is scarce. This study therefore seeks to fill this gap by establishing the prevalent sign languages used at home and in school and analyzing the degree of variation between them. The results illuminate the impact of these differences on pupils in terms of communication, comprehension, and academic experience.

1.2 Objectives of the Study

The main purpose of this study is to examine the use of sign language at home and in school in communicating with pupils with hearing impairment. Specifically, the study aims to:

1. Identify the common sign languages used at home and in school in communicating with pupils with hearing impairment.
2. Determine the differences between the sign languages used at home and in school in communicating with pupils with hearing impairment.

1.3 Research Questions

1. What is the common sign language used at home and in school in communicating with pupils with hearing impairment?
2. Is there any difference between the sign language used at home and in school to communicate with pupils with hearing impairment?

2. METHODOLOGY

This study adopted a descriptive research design, which was considered appropriate for collecting detailed information about how sign language is used at home and in school among pupils with hearing impairment. The design allowed the researchers to observe real-life situations and describe existing practices without manipulating any variable.

The study involved lower primary school teachers, pupils with hearing impairment, and their parents within the Ibadan metropolis. Because only a few schools in Oyo State cater to these pupils, five schools across four local government areas were purposively selected. From each school, three teachers and six pupils participated, making a total of fifteen teachers and thirty pupils. Additionally, six parents from each school took part, bringing the total sample to seventy-five respondents.

Two main instruments were used to collect data: the Sign Language Use by Parents Questionnaire (SLU_PQ) and the Sign Language Use by Special Teachers Questionnaire (SLU_STQ). Each instrument had two parts: Section A gathered basic demographic information, while Section B focused on thirty word items and twenty sentence items to assess sign language use in both settings. To ensure validity, experts in sign language reviewed and corrected the instruments before use; their feedback helped refine the content to suit the purpose of the study. A pilot test was conducted to check reliability, and the results showed high consistency, with coefficients of 0.97 for the parents' questionnaire and 0.82 for the teachers' questionnaire. Data were analyzed using descriptive statistics — frequency counts, percentages, means, standard deviation, and weighted averages — to summarize and interpret the findings.

3. RESULTS

3.1 Section A: Demographic Information of Teachers, Parents, and Children

Table 1. Demographic information of teachers.

Variable	Frequency	Percentage
Educational Qualification		
NCE	12	80.0
First Degree	3	20.0
Total	15	100
Years of Teaching Experience		
1–5 years	4	26.7
6–10 years	3	20.0
11–15 years	8	53.3
Total	15	100
Class Taught		
Basic 1	6	40.0
Basic 2	5	33.3
Basic 3	4	26.7
Total	15	100
Average Age of Pupils in the Class		
6 years	3	20.0
7 years	5	33.3
8 years	7	46.7

Variable	Frequency	Percentage
Total	15	100

Table 1 shows the distribution of demographic information for teachers. The detailed analysis of educational qualifications is as follows: 12 (80%) of the teachers hold the NCE certificate and 3 (20%) hold a first degree. Years of teaching experience are as follows: 4 (27%) have 1–5 years, 3 (20%) have 6–10 years, and 8 (53%) have 11–15 years. The class-taught distribution of the teachers is: 6 (40%) teach Basic 1, 5 (33%) teach Basic 2, and 4 (27%) teach Basic 3. The average age of pupils in the teachers' classes is: 3 (20%) have an average age of 6 years, 5 (33%) have an average age of 7 years, and 7 (47%) have an average age of 8 years.

Table 2. Demographic information of the parents.

Variable	Frequency	Percentage
Educational Qualification		
SSCE	20	66.7
NCE	9	30.0
First Degree	1	3.3
Total	30	100
Profession		
Self-employed	17	56.7
Teaching	5	16.7
Artisans	8	26.7
Total	30	100
Class of the Child		
Basic 1	12	40.0
Basic 2	10	33.3
Basic 3	8	26.7
Total	30	100
Age of the Child		
6 years	10	33.3
7 years	10	33.3
8 years	10	33.3
Total	30	100
Position of the Child		
First	7	22.3
Second	10	33.3
Third	9	30.0
Fourth	4	13.3
Total	30	100

Table 2 shows the distribution of demographic information for parents. The detailed analysis of educational qualifications is as follows: 20 (67%) of the parents hold the SSCE certificate, 9 (30%) hold the NCE certificate, and 1 (3%) holds a first degree. Parents' occupations are as follows: 17 (57%) are self-employed, 5 (17%) are teachers, and 8 (27%) are artisans. The age of the child is: 10 (33%) are 6

years old, 10 (33%) are 7 years old, and 10 (33%) are 8 years old. The position of the child with the hearing impairment is: 7 (22%) are first-born, 10 (33%) are second-born, 9 (30%) are third-born, while 4 (13%) are fourth-born.

Table 3. Demographic information of the pupils.

Variable	Frequency	Percentage
Class		
Basic 1	14	46.7
Basic 2	7	23.3
Basic 3	9	30.0
Total	30	100
Position of the Child		
First	9	30.0
Second	7	23.3
Third	8	26.7
Fourth	6	20.0
Total	30	100

Table 3 shows the distribution of demographic information for the pupils. The detailed analysis of pupils who participated in this study is as follows: 14 (47%) are in Basic 1, 7 (23%) are in Basic 2, and 9 (30%) are in Basic 3. The position of the child is: 9 (30%) are first-born in their family, 7 (23%) are second-born, 8 (27%) are third-born, and 6 (20%) are fourth-born in their family.

3.2 Research Question 1: What is the common sign language used at home and in school in communicating with pupils with hearing impairment?

Table 4. Frequency count and percentage showing the common sign language used for some words at home and in school in communicating with lower primary pupils with hearing impairment.

Word	Home		School	
	Conv.	Non-Conv.	Conv.	Non-Conv.
Read	4 (13.3)	26 (86.7)	12 (80.0)	3 (20.0)
Eat	26 (86.7)	4 (13.3)	15 (100.0)	–
Come	23 (76.7)	7 (23.3)	14 (93.3)	1 (6.7)
Girl	4 (13.3)	26 (86.7)	15 (100.0)	–
Run	5 (16.7)	25 (83.3)	12 (80.0)	3 (20.0)
Family	4 (13.3)	26 (86.7)	13 (86.7)	2 (13.3)
Play	4 (13.3)	26 (86.7)	11 (73.3)	4 (26.7)
Hot	4 (13.3)	26 (86.7)	9 (60.0)	6 (40.0)
Sleep	4 (13.3)	26 (86.7)	12 (80.0)	3 (20.0)
Friend	4 (13.3)	26 (86.7)	14 (93.3)	1 (6.7)
Father	4 (13.3)	26 (86.7)	15 (100.0)	–
Mother	5 (16.7)	25 (83.3)	15 (100.0)	–
Sick	5 (16.7)	25 (83.3)	14 (93.3)	1 (6.7)
Money	4 (13.3)	26 (86.7)	13 (86.7)	2 (13.3)
Sit	4 (13.3)	26 (86.7)	15 (100.0)	–
Sweep	21 (70.0)	9 (30.0)	13 (86.7)	2 (13.3)
Go	21 (70.0)	9 (30.0)	15 (100.0)	–

Word	Home		School	
	Conv.	Non-Conv.	Conv.	Non-Conv.
Soup	4 (13.3)	26 (86.7)	8 (53.3)	7 (46.7)
Rice	8 (26.7)	22 (73.3)	15 (100.0)	–
Teacher	4 (13.3)	26 (86.7)	15 (100.0)	–
Book	6 (20.0)	24 (80.0)	15 (100.0)	–
School	4 (13.3)	26 (86.7)	15 (100.0)	–
Count	3 (10.0)	27 (90.0)	9 (60.0)	6 (40.0)
Chalk	4 (13.3)	26 (86.7)	10 (66.7)	5 (33.3)
Pencil	4 (13.3)	26 (86.7)	13 (86.7)	2 (13.3)
Table	6 (20.0)	24 (80.0)	15 (100.0)	–
Eraser	5 (16.7)	25 (83.3)	12 (80.0)	3 (20.0)
Broom	18 (60.0)	12 (40.0)	13 (86.7)	2 (13.3)
Chair	3 (10.0)	27 (90.0)	13 (86.7)	2 (13.3)
Cloth	20 (66.7)	10 (33.3)	15 (100.0)	–
Average %	26.20	73.80	87.78	12.22

Table 4 shows the common sign language used at home and in school in communicating with pupils with hearing impairment for individual words. The average percentages reveal that the common sign language used at home is non-conventional (73.8%), while the common sign language used in school is conventional (87.8%). The detailed analysis shows that parents (87%) used non-conventional sign language while teachers (80%) used conventional sign language for “Read.” Parents (90%) and teachers (100%) used conventional sign language for “Eat.” Parents (77%) and teachers (94%) used conventional sign language for “Come.” Parents (87%) used non-conventional sign language while teachers (100%) used conventional sign for “Girl.” Parents (83%) used non-conventional sign language while teachers (80%) used conventional sign for “Run.” Parents (87%) used non-conventional sign language while teachers (87%) used conventional sign for “Family.” Parents (87%) used non-conventional sign language while teachers (73%) used conventional sign for “Play.” Parents (87%) used non-conventional sign language while teachers (60%) used conventional sign for “Hot.” Parents (87%) used non-conventional sign language while teachers (80%) used conventional sign for “Sleep.” Parents (87%) used non-conventional sign language while teachers (93%) used conventional sign for “Friend.” Parents (87%) used non-conventional sign language while teachers (100%) used conventional sign for “Father.” Parents (83%) used non-conventional sign language while teachers (100%) used conventional sign for “Mother.” Parents (83%) used non-conventional sign language while teachers (93%) used conventional sign for “Sick.” Parents (87%) used non-conventional sign language while teachers (87%) used conventional sign for “Money.” Parents (87%) used non-conventional sign language while teachers (100%) used conventional sign for “Sit.” Parents (70%) and teachers (87%) used conventional sign language for “Sweep.” Parents (70%) and teachers (100%) used conventional sign language for “Go.”

Parents (87%) used non-conventional sign language while teachers (53%) used conventional sign for “Soup.” Parents (73%) used non-conventional sign language while teachers (100%) used conventional sign for “Rice.” Parents (87%) used non-conventional sign language while teachers (100%) used conventional sign for “Teacher.” Parents (80%) used non-conventional sign language while teachers (100%) used conventional sign for “Book.” Parents (87%) used non-conventional sign language while teachers (100%) used conventional sign for “School.” Parents (90%) used non-conventional sign language while teachers (60%) used conventional sign for “Count.” Parents (87%) used non-conventional sign language while teachers (67%) used conventional sign for “Chalk.” Parents (87%)

used non-conventional sign language while teachers (87%) used conventional sign for “Pencil.” Parents (80%) used non-conventional sign language while teachers (100%) used conventional sign for “Table.” Parents (83%) used non-conventional sign language while teachers (80%) used conventional sign for “Eraser.” Parents (60%) and teachers (87%) used conventional sign language for “Broom.” Parents (90%) used non-conventional sign language while teachers (87%) used conventional sign for “Chair.” Parents (67%) and teachers (100%) used conventional sign language for “Cloth.”

Table 5. Frequency count and percentage showing the common sign language used for sentences at home and in school in communicating with lower primary pupils with hearing impairment.

Sentence	Home		School	
	Conv.	Non-Conv.	Conv.	Non-Conv.
What will you eat?	4 (13.3)	26 (86.7)	14 (93.3)	1 (6.7)
I love you	4 (13.3)	26 (86.7)	15 (100.0)	–
Meet me at home	4 (13.3)	26 (86.7)	11 (73.3)	4 (26.7)
Clap for the boy	4 (13.3)	26 (86.7)	14 (93.3)	1 (6.7)
Call him for me	4 (13.3)	26 (86.7)	12 (80.0)	3 (20.0)
Go and sleep in your room	3 (10.0)	27 (90.0)	15 (100.0)	–
Do not eat hot food	4 (13.3)	26 (86.7)	14 (93.3)	1 (6.7)
Do not go out	4 (13.3)	26 (86.7)	14 (93.3)	1 (6.7)
I am going to the market	4 (13.3)	26 (86.7)	14 (93.3)	1 (6.7)
Bring the broom	6 (20.0)	24 (80.0)	14 (93.3)	1 (6.7)
Eat your food	7 (23.3)	23 (76.7)	15 (100.0)	–
Go and bath	9 (30.0)	21 (70.0)	15 (100.0)	–
Bring me the knife	4 (13.3)	26 (86.7)	14 (93.3)	1 (6.7)
Sit on the chair	4 (13.3)	26 (86.7)	14 (93.3)	1 (6.7)
You will go to school tomorrow	4 (13.3)	26 (86.7)	15 (100.0)	–
You are a beautiful girl	6 (20.0)	24 (80.0)	15 (100.0)	–
That is good	9 (30.0)	21 (70.0)	15 (100.0)	–
What is your name?	5 (16.7)	25 (83.3)	15 (100.0)	–
What is the name of your school?	4 (13.3)	26 (86.7)	15 (100.0)	–
Give me your pencil	4 (13.3)	26 (86.7)	15 (100.0)	–
Average %	16.20	83.60	95.00	5.00

Table 5 shows the common sign language used at home and in school in communicating with pupils with hearing impairment for sentences. In terms of communicating in sentences, the average percentages reveal that the common sign language used at home is non-conventional (83.6%), while the common sign language used in school is conventional (95.0%). The detailed analysis shows that parents (87%) used non-conventional sign language while teachers (93%) used conventional sign language for “What will you eat?” Parents (87%) used non-conventional sign language while teachers (100%) used conventional sign language for “I love you.” Parents (87%) used non-conventional sign language while teachers (73%) used conventional sign language for “Meet me at home.” Parents (87%) used non-conventional sign language while teachers (93%) used conventional sign language for “Clap for the boy.” Parents (87%) used non-conventional sign language while teachers (80%) used conventional sign language for “Call him for me.” Parents (90%) used non-conventional sign language while teachers (100%) used conventional sign language for “Go and sleep in your room.”

Parents (87%) used non-conventional sign language while teachers (93%) used conventional sign language for “Do not eat hot food.” Parents (87%) used non-conventional sign language while teachers

(93%) used conventional sign language for “Do not go out.” Parents (87%) used non-conventional sign language while teachers (93%) used conventional sign language for “I am going to the market.” Parents (80%) used non-conventional sign language while teachers (93%) used conventional sign language for “Bring the broom.” Parents (77%) used non-conventional sign language while teachers (100%) used conventional sign language for “Eat your food.” Parents (70%) used non-conventional sign language while teachers (100%) used conventional sign language for “Go and bath.” Parents (87%) used non-conventional sign language while teachers (93%) used conventional sign language for “Bring me the knife.”

Parents (87%) used non-conventional sign language while teachers (93%) used conventional sign language for “Sit on the chair.” Parents (87%) used non-conventional sign language while teachers (100%) used conventional sign language for “You will go to school tomorrow.” Parents (80%) used non-conventional sign language while teachers (100%) used conventional sign language for “You are a beautiful girl.” Parents (70%) used non-conventional sign language while teachers (100%) used conventional sign language for “That is good.” Parents (83%) used non-conventional sign language while teachers (100%) used conventional sign language for “What is your name?” Parents (87%) used non-conventional sign language while teachers (100%) used conventional sign language for “What is the name of your school?” Parents (87%) used non-conventional sign language while teachers (100%) used conventional sign language for “Give me your pencil.”

3.3 Research Question 2: Is there any difference between the sign language used at home and in school to communicate with pupils with hearing impairment?

To answer research question two, Tables 4 and 5 reveal that there is a difference in the sign language used at home and in school to communicate with pupils with hearing impairment, as the tables show that parents used non-conventional sign language while teachers used conventional sign language.

4. SUMMARY OF FINDINGS

The study produced two principal findings. First, the sign language commonly used at home is non-conventional, whereas schools use conventional sign language to communicate with pupils with hearing impairment, at the level of both words and sentences. Second, there is a clear difference between the sign language used at home and in school: parents used non-conventional signs while teachers used conventional signs.

5. DISCUSSION OF FINDINGS

The finding that the sign language commonly used at home is non-conventional while schools use conventional sign language is expected, since many parents prefer to use non-conventional signs at home with their children with hearing impairment owing to factors such as a lack of proper training and low literacy, unlike teachers, who have been trained for and entrusted with the task of educating these pupils. This finding aligns with Mayberry (2002), who found that hearing parents of children with hearing impairment invent their own signs to communicate ideas, feelings, and propositions to their wards. Blose and Joseph (2017) similarly noted that the majority of children with hearing loss are born into hearing families in which a common communication mode does not exist and family members are not fluent in conventional sign language, and Madden (2019) observed that in most homes from which children with hearing impairment come, knowledge of conventional sign language is absent.

The second finding, concerning the difference in the sign languages used to communicate with children with hearing impairment, is likewise unsurprising; nonetheless, parents ought to make an effort to learn conventional sign language in order to establish a proper means of communication rather than relying

on ad hoc gestures. This finding is consistent with Susan (2019), who found that hearing parents use gestural communication systems that differ from the formal sign language used at school, and with Blose and Joseph (2017), who reported a mismatch between the sign language used at home and at school. This inconsistency may cause confusion and slow the language development of pupils with hearing impairment, as they must constantly adjust between two different systems. It can also affect their academic progress and social interaction, since the absence of a unified mode of communication limits their ability to fully understand and express ideas. The finding underscores the importance of collaboration between parents and teachers to promote the consistent use of a standardized sign language across home and school environments — a step that would not only enhance comprehension and learning but also strengthen the emotional connection between children and their families.

6. CONCLUSION

The sign language commonly used by hearing parents to communicate with their children with hearing impairment is non-conventional (local) sign language, whereas special teachers commonly use conventional sign language to deliver instruction in class. The study concludes that there is a need for teachers and the relevant agencies to respond to the needs of these children and their parents in order to create a lasting impact on the children's education and future.

7. RECOMMENDATIONS

Based on the findings and conclusion, the following recommendations are proffered:

1. Parents should make it a point of responsibility to learn and use conventional sign language with their children as early as possible.
2. Government should provide regular sign-language workshops for special teachers in order to refresh and update their sign-language skills.
3. Special teachers should provide free sign-language classes for hearing parents so that the flow of communication between children, parents, and teachers becomes adequate.
4. Special teachers should endeavour to obtain adequate information about the communication flow between parents and their children with hearing impairment.

DECLARATIONS

Conflict of Interest Statement: The authors declare that there is no conflict of interest in the conduct and reporting of this study.

Funding Statement: This research received no external funding from any public, commercial, or not-for-profit funding agency.

Authors' Contributions: Saheed Olawale Olatunji: conceptualization, methodology, data collection, analysis, and writing – original draft. Ishola Akindele Salami: supervision, methodology, reviewing, and editing. Both authors have read and approved the final version of the manuscript. Saheed Olawale Olatunji is the corresponding author.

Ethical Approval: The study was conducted with the informed consent of participating teachers and parents, and with the permission of the participating schools.

REFERENCES

- Baker, A. E. (2000). *Input and interaction in deaf families* [Academisch proefschrift]. LOT, Universiteit van Amsterdam.
- Bandura, A. (1977). Self-efficacy: Toward a unifying theory of behaviour change. *Psychological Review*, 84, 191–215.
- Berke, J. (2019). *Why using sign language helps families of deaf children*. Retrieved August 28, 2019, from <https://www.verywellhealth.com/parents-of-deaf-children-not-learning-sign-language-1049359>
- Blose, Z. M., & Joseph, L. N. (2017). The reality of everyday communication for a deaf child using sign language in a developing country. *African Health Sciences*, 17(4), 1149–1159.
- Education and health of children with hearing loss: The necessity of signed languages. (2022). <https://doi.org/10.32920/21594291>
- Ezema, E. O. (2013). *Effect of total communication on academic achievement of pupils with hearing impairment in Enugu State* [Unpublished M.Ed. thesis]. Department of Educational Foundations, University of Nigeria, Nsukka.
- Fitrananda, C. A., & Affandi, N. R. D. (2024). Pola komunikasi pembelajaran pada anak dengan hambatan pendengaran di SLB Sukapura Kota Bandung. *Linimasa*, 7(1). <https://doi.org/10.23969/linimasa.v7i1.13356>
- Madden, M. (2019). *Early exposure to sign language: An advantage to parents and children*. Retrieved September 15, 2019, from <https://www.aussiedeafkids.org.au/early-exposure-to-sign-language.html>
- Mayberry, R. I. (2002). Cognitive development in deaf children: The interface of language and perception in neuropsychology. In S. S. Segalowitz & I. Rapin (Eds.), *Handbook of neuropsychology* (2nd ed., Vol. 8, Part II). Elsevier.
- Megaman. (2019). *Home sign*. Retrieved June 7, 2019, from https://en.m.wikipedia.org/wiki/home_sign
- Mifflin. (2019). *Conventional sign*. Retrieved June 6, 2019, from <https://www.dictionary.com/browse/conventional-sign>
- MT and Associates. (2016). *Home signs – sign language variations*. Retrieved June 7, 2019, from <https://www.mtapractice.com/2016/11/28/home-signs-sign-language-variation/>
- Murray, J. J., Hall, W. C., & Snoddon, K. (2019). Education and health of children with hearing loss: The necessity of signed languages. *Bulletin of the World Health Organization*, 97(10), 711–716. <https://doi.org/10.2471/BLT.19.229427>
- National Institute on Deafness and Other Communication Disorders. (2016). *Quick statistics about hearing*. Bethesda: NIDCD. Retrieved September 4, 2019, from <https://www.nidcd.nih.gov/health/statistics/quick-statistics-hearing>
- Odusanya, T. (2006). *Basic sign language*. D’Laurel Nigeria Limited.
- Pereira, R. S. (2022). Metodologias de ensino da língua brasileira de sinais: Da escola para casa. *Núcleo do Conhecimento*, 87–100. <https://doi.org/10.32749/nucleodoconhecimento.com.br/educacao/ensino-da-lingua-brasileira>
- Physicians News Digest. (2019). *Should deaf children with hearing parents learn a sign language?* Retrieved June 9, 2019, from <https://physiciansnews.com/2015/06/15/should-deaf-children-with-hearing-parents-a-sign-language/>
- Randy, T. (2017). *What are the differences between communication and language?* Retrieved June 6, 2019, from <https://www.quora.com/what-are-the-differences-between-communication-and-language>

- Siegel, L. (2000). The educational and communication needs of deaf and hard of hearing children: A statement of principle on fundamental educational change. *American Annals of the Deaf*, 145(2), 64–77.
- Susan, G. M. (2019). *Deaf children are able to create their own sign languages*. Retrieved September 1, 2019, from <https://www.nytimes.com/1991/04/07/opinion/1-deaf-children-are-able-to-create-their-own-sign-languages-171391.html>
- Van Metre, P. D., & Maxwell, M. M. (1981). Communication modes used with hearing-impaired students: Investigations and applications to a school/home program. *American Annals of the Deaf*, 126(5), 499–504. <https://doi.org/10.1353/AAD.2012.1312>

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Received: 15 April 2026

Accepted: 8 June 2026

Published: 11 July 2026