



PEDAGOGICAL STRATEGIES EMPLOYED IN THE INSTRUCTION OF ENGLISH LANGUAGE TO LEARNERS WITH HEARING IMPAIRMENT

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Abstract

This study investigates the pedagogical strategies used by English language teachers to support students with hearing impairments in inclusive and special education settings. Adopting a quantitative survey design, data were collected from 150 English teachers across public and private institutions using a structured questionnaire. Findings indicate frequent use of inclusive strategies such as visual aids, captioned multimedia, total communication, and sign language. Teachers rated these strategies as highly effective in enhancing learners' comprehension, engagement, and literacy skills. Significant differences in strategy use were observed based on teacher designation, type of institution, and area of posting, while gender, age, and qualification showed no impact. A positive correlation emerged between frequency of strategy use and perceived effectiveness, underscoring the importance of sustained pedagogical application. The study highlights the need for context-sensitive training, assistive technologies, and curriculum adaptation to improve English language acquisition among students with auditory impairments in diverse learning environments.

Key Words:

Pedagogical Strategies, Instruction, English Language, Hearing Impairment

Introduction

Language serves as the primary tool for communication, learning, and participation in society. In educational contexts, proficiency in the English language holds particular importance, especially in regions where English functions as the medium of instruction, a second language, or a global lingua franca. However, for learners with auditory impairments those who experience partial or complete hearing loss the acquisition of spoken and written English presents unique challenges. These students face distinct barriers in accessing phonological, syntactic, and semantic features of the language due to limited or altered auditory input (Marschark & Hauser, 2012). Consequently, educators must adopt and adapt specialized pedagogical strategies to meet the unique linguistic and cognitive needs of these learners.

The education of students with hearing impairments has evolved considerably over the past few decades, shifting from segregated institutional models to more inclusive approaches that emphasize equity and accessibility. Within this context, English language



instruction plays a vital role in academic achievement and future employability for deaf and hard-of-hearing (DHH) learners (Spencer & Marschark, 2010). Teaching English to these learners necessitates strategic modifications in instruction, encompassing visual, kinesthetic, and multimodal learning methods. Studies have shown that strategies such as total communication (combining speech, sign language, lip-reading, and written language), visual aids, captioned media, and bilingual-bicultural approaches can significantly enhance English language acquisition among learners with auditory impairments (Schick, Marschark, & Spencer, 2006).

Despite increased awareness of the need for differentiated instruction, many teachers in inclusive and special education settings continue to struggle with effectively addressing the linguistic needs of students with hearing impairments. Inadequate teacher training, limited access to assistive technology, and a lack of context-specific pedagogical models often contribute to learning gaps among DHH learners, particularly in English language classrooms (Luckner & Cooke, 2010).

While there is a substantial body of international literature on deaf education and language development, a notable research gap persists regarding contextually grounded pedagogical strategies specifically tailored for English language instruction to learners with auditory impairments in low-resource or multilingual settings. Much of the existing research is concentrated in Western, high-income countries with robust support systems. There has been little deep study on how teachers in mixed talk settings, more so in poor places, change how they teach for students of English who can't hear well (Obasi, 2020). Also, past work often looks just at usual class issues or how sign talk grows, not at full teaching plans made just for English as a new or foreign talk for DHH students.

Even as more people push for schools that fit everyone and for ways of teaching that meet different needs, students who can't hear well still find it hard to pick up English. These problems are mostly said to be due to not having the right ways to teach, not using visual or other ways to talk enough, and teachers not being ready enough. So, many students who can't hear well fall behind other kids in how well they use the language and read and write. This gap shows there is a real need to find, look at, and use good teaching ways that can close this talk gap and give fair English learning chances to students who can't hear well.

This work matters a lot for those who teach, make class plans, train teachers, and set policies. By looking at teaching ways that work well or don't in real classes, this study aims to add to what we know about how best to teach in special and everyone-fit schools. It gives ideas on how we can make English classes better for kids who can't hear well, helping them do well in school, join in socially, and succeed later on. Also, this study could help shape training programs for teachers and show where to put resources and how to change policies in language learning for everyone.

This study is guided by the following objectives:

1. To identify and describe the pedagogical strategies currently used by teachers in instructing English to learners with auditory impairments.
2. To evaluate the effectiveness of these strategies in enhancing English language skills among students with hearing impairments.
3. To examine the challenges teachers face in implementing these pedagogical strategies within inclusive or special education settings.
4. To provide recommendations for enhancing English language instruction for learners with auditory impairments through context-sensitive pedagogical interventions.



Review of Related Literature

Hearing loss affects the requirement of special educational strategies for language instructions, the reach of learners up to the spoken language. In terms of English language teaching, traditional hearing-based methods are often insufficient for learners who are deaf or hearing (DHH). Thus, teachers should employ visually rich, multimodal and interactive strategies to ensure effective language acquisition. This literature review synthesizes the contribution of recent scholars (2020 further), which relates to the educational strategies used in teaching English with hearing loss, to highlight effectiveness, challenges and emerging innovations in this particular field of education.

2. Understanding Language Acquisition in Auditory-Impaired Learners

Language acquisition among DHH learners follows a separate trajectory compared to their hearing peers. Many DHH students experience delayed language development, directly to their literacy and academic achievement (Marsachark and Nor, 2020), without early and frequent contact for accessible language inputs. According to Power (2021), challenges in English acquisition are complicated when English learners are not the first language or are mainly used in academic settings. Thus, effective teaching strategies should be bridged the difference between linguistic inputs and cognitive access through alternative channels, especially visuals, pregnancies and written form.

3. Bilingual-Bicultural (Bi-Bi) Approach

One of the most widely researched strategies in recent years is the bilingual-bicultural (Bi-Bi) model, which uses the native sign language of the students (e.g., American Sign Language or Pakistan Sign Language) as the primary medium of instruction, with English taught as a second language. This model respects the linguistic identity of DHH learners while also facilitating academic literacy in English. A study by Hall and Hall (2021) affirmed that Bi-Bi education not only supports stronger English literacy skills but also promotes positive self-identity among DHH learners. Further, Trezek and Wang (2022) noted that Bi-Bi approaches, when supported with robust sign language instruction and visual English materials, enable students to transfer conceptual understanding between the two languages, thereby improving English grammar and vocabulary acquisition. However, they caution that the success of this approach is contingent on teachers' proficiency in both sign language and ESL pedagogy.

4. Visual Pedagogies and Multimodal Instruction

Given the hearing boundaries of the target group, visual and multimodal education are central for English instructions for DHH learners. Visual strategies include videos with charts, mind maps, interactive whiteboards, realia and captioning. According to Akram and Malik (2021), blind -rich texts increase the understanding, engagement and retention of English terminology and syntax between DHH students in inclusive classes. Recent technological progress has expanded the multimodal options available for teachers. Promoted reality (AR) and captioned video content has proved to be effective in making abstract linguistic concepts more accessible for DHH learners (Chung & Gardner, 2023). These devices help to bridge the difference between ideological and linguistic aspects of English learning, especially in grammar and reading.

5. Total Communication and Simultaneous Communication Strategies

Total communication (TC) is an inclusive strategy that combines various forms of communication, such as sign language, oral speech, lip-reading and written text. According to Nelson and Smith (2020), TC allows flexibility and accountability to individual learners needs and references to learning. This approach can be particularly effective in different



classes where learners display separate degrees of hearing loss and language preferences. Similarly, using speech and sign at the same time, communication (SIMCOM) has shown positive results in inclusive ESL classes. A study by Peterson and Richards (2022) has shown that students coming in contact with SimCom instructions showed improvement in the reading and word recognition, especially when the speech was supported with fingers and supported the content of the caption.

6. Use of Assistive Technology

Integration of supporting technology in English language instructions has attracted significant attention over the years. Hearing AIDS, cochlear implant, FM system, speech-to-text apps and interactive software are often used to complement instructions. Meta-analysis recently by Zhao et al. (2023) found that subsidiary technologies not only increase access, but also intentionally improve educational results with educational strategies. However, access and training remain important obstacles. In many low income or rural settings, teachers with accessories lack a lack of familiarity and insufficient institutional support obstruct the full receipt of their benefits (Khan et al., 2022). Therefore, technology should be used with professional development to ensure educational effectiveness.

7. Scaffolding and Differentiated Instruction

Scaffolding involves providing temporary support to help learners acquire complex language skills. For DHH students, this may include pre-teaching vocabulary, using graphic organizers, modeling sentence structures, and providing feedback through visual cues. Differentiated instruction, on the other hand, ensures that tasks and materials are adapted to learners' individual needs and communication preferences. According to Okolo and Leung (2020), scaffolding techniques are particularly effective in improving reading and writing skills among DHH students. Their study emphasized that success in English language learning is closely tied to the extent to which teachers personalize instruction and build on students' existing linguistic knowledge whether in sign language or written English.

8. Teacher Competency and Training

Another consistent theme in recent literature is the pivotal role of teacher preparation in the successful implementation of pedagogical strategies. Teaching English to DHH learners requires specialized knowledge of second language acquisition, deaf culture, sign language, and inclusive education. However, teacher training programs in many countries still lack dedicated modules on deaf education or inclusive ESL instruction (Farooq & Hassan, 2021). Additionally, teachers often express uncertainty about how to assess language progress among students with auditory impairments. Roberts et al. (2022) advocated for targeted training programs that combine theory with classroom-based practicums to build teacher confidence and pedagogical competence. The inclusion of sign language certification and ongoing professional development is also recommended to address gaps in instructional quality.

9. Classroom Environment and Peer Interaction

Class structure and social interaction also affect English language acquisition for DHH students. Inclusive settings where DHH learner can connect with cooperative educational activities such as coupled readings, shared writing, and dramaticness, has been shown to improve language flow and social skills (Mukherjee and Alam, 2023). Use of visual group work criteria, such as turn-taking cards and visual timers, can support meaningful participation in group discussion. Creating a language-rich environment that emphasizes visual signals, clear instructions and positive reinforcement are important. A study by Perera and Wickramasinghe (2021) found that high student engagement and English speaking and



writing skills improved in classes promoting colleagues interaction and visual communication strategies.

10. Challenges and Barriers in Implementation

Despite the increasing knowledge of effective academic strategies, many challenges remain. Teachers often cite insufficient administrative assistance in the form of obstacles for large class size, lack of time, lack of resources and inclusive instructions. In addition, it is often a mismatched between the expectations of the course and the linguistic abilities of DHH learners, especially when standardized English assessments do not adjust to diverse learning needs (Iqbal and Shah, 2022). In addition, many educational systems still adopt a medical or loss-based model of deafness, rather than recognizing DHH students as linguistic minorities with unique educational rights. This paradigm limits culturally responsible education that accepts the prosperity of deaf culture and symbolic language (Hall and Hall, 2021).

Reviewed literature reveals the increasing consent on the importance of multimodal, inclusive and individual educational strategies for the instructions of English language among learners with hearing loss. Emphasis is being laid on inclusion of bilingual approaches to support teacher training, use of assistant technology and to support literacy development. Emerging trends include Artificial Intelligence (AI) -Pover captioning, gameified learning apps and the use of culturally responsible courses that validate the linguistic identity of DHH learners. Future research should detect the relevant application of these strategies in various educational settings, especially in the lower-purpose and multilingual environment.

Research Methodology

1. Research Design

This study adopts a quantitative, descriptive survey research design aimed at investigating the pedagogical strategies utilized by teachers in instructing English language to learners with auditory impairments. The design allows for systematic data collection and statistical analysis to identify common practices, frequency of strategy use, and the perceived effectiveness of these strategies. A survey method is chosen for its ability to reach a broader population and generate generalizable findings based on numerical data.

2. Population and Sampling

The population for this study consists of English language teachers working with students with auditory impairments in public and private special education schools and inclusive institutions. The sample is drawn from this population using a stratified random sampling technique to ensure representation across key variables such as:

- Type of school (inclusive vs. special education)
- Teacher qualification (general vs. special education trained)
- Years of teaching experience

A sample of 150 English language teachers is selected from various districts to ensure adequate statistical power and reliability of results.

3. Development of Research Tool

Data is collected using a structured, self-administered questionnaire designed by the researcher. The questionnaire is divided into three sections:

- **Section A:** Demographic Information (e.g., gender, age, qualification, years of experience, type of school)
- **Section B:** Frequency of Use of Pedagogical Strategies (Likert-scale items ranging from "Never" to "Always")
- **Section C:** Perceived Effectiveness of Strategies (Likert-scale items ranging from "Not Effective" to "Highly Effective")



Items are developed based on a thorough review of recent literature on English language instruction for learners with hearing impairments (e.g., Marschark & Knoors, 2020; Zhao et al., 2023). Strategies included in the questionnaire cover areas such as:

- Use of visual aids and captioned content
- Total communication and sign language integration
- Cooperative and peer-assisted learning
- Use of assistive technology
- Scaffolding and differentiated instruction

The questionnaire contains approximately **16 items**, allowing for detailed quantitative analysis of both instructional practices and perceived outcomes.

4. Validity and Reliability of the Research Tool

To ensure content validity, the questionnaire is reviewed by a panel of five experts in special education, language pedagogy, and quantitative research. Revisions are made based on expert suggestions to improve clarity, relevance, and coverage of key domains. Construct validity is evaluated using factor analysis during data analysis to ensure that items group logically under relevant constructs (e.g., strategy usage, effectiveness). Reliability of the instrument is measured using Cronbach's alpha, with a reliability coefficient of 0.70 or higher considered acceptable for internal consistency. A pilot study involving 15 teachers is conducted prior to the main study to refine the tool and confirm its reliability.

5. Data Collection and Analysis

Data collection is conducted in two phases:

Phase 1: Distribution of questionnaires to selected schools with prior administrative approval.

Phase 2: Follow-up through emails or in-person visits to ensure high response rates.

Respondents are assured of the anonymity and confidentiality of their responses. Participation is voluntary, and consent forms are attached to each questionnaire. Data is analyzed using SPSS (Statistical Package for the Social Sciences). The following statistical procedures are employed: Descriptive statistics (mean, frequency, percentage) to summarize the demographic data and general trends in strategy usage. Inferential statistics: Independent samples t-test to compare responses based on gender or school type. One-way ANOVA to analyze differences across experience levels or educational qualifications. Pearson correlation coefficient to examine the relationship between strategy frequency and perceived effectiveness. Significance is tested at the 0.05 alpha level, and findings are presented in the form of tables, graphs, and narrative interpretation.

Table 1: Demographic Profile of Respondents

Title	Description	Frequency	Percentage (%)
Gender	Male	98	65.3%
	Female	52	34.7%
		150	100%
Age of Respondents	21-30 Y	0	0.0%
	31-40 Y	112	74.7%
	41-50 Y	26	17.3%
	51-60 Y	12	8.0%
		150	100%
Designation	Senior Teacher	79	52.7%
	Junior Teacher	71	47.3%
		150	100%



	Masters	121	80.7%
	M.Phil.	27	18.0%
	PHD	2	1.3%
		150	100%
Institute	Public	80	53.3%
	Private	70	46.7%
		150	100%
Area of Posting	Rural	20	13.3%
	Urban	130	86.7%
		150	100%
Experience	1-5 Y	132	88.0%
	6-10 Y	14	9.3%
	11-15 Y	4	2.7%
	>15 Y	0	0.0%
		150	100%

This table presents the demographic breakdown of the 150 participating English language teachers working with learners with auditory impairments. The majority of respondents were male (65.3%) and between the ages of 31–40 years (74.7%). Most were senior teachers (52.7%) with Master’s degrees (80.7%), working in public institutions (53.3%) located in urban areas (86.7%). A significant portion (88%) had 1–5 years of teaching experience. These demographics highlight a relatively young and well-qualified teaching workforce concentrated in urban, public-sector schools.

Table 2: Frequency of Use of Pedagogical Strategies in English Language Instruction

(Scale: 1 = Never, 2 = Rarely, 3 = Sometimes, 4 = Often, 5 = Always)

Sr.	Statements of Questions	A	O	S	R	N	M	SD
1	I use visual aids (e.g., pictures, diagrams) to support English language instruction for students with auditory impairments.	93	47	10	0	0	4.55	0.62
		62%	31%	7%	0%	0%		
2	I incorporate captioned videos or multimedia resources when teaching English content.	84	58	8	0	0	4.51	0.60
		56%	39%	5%	0%	0%		
3	I use total communication methods, combining speech, signs, and facial expressions during lessons.	66	76	8	0	0	4.39	0.59
		44%	51%	5%	0%	0%		
4	I regularly integrate sign language in my English teaching.	80	52	2	12	4	4.28	1.02
		53%	35%	1%	8%	3%		
5	I engage students in peer-assisted learning activities during English lessons.	47	78	16	9	0	4.09	0.81
		31%	52%	11%	6%	0%		
6	I utilize assistive technologies (e.g., hearing devices, speech-to-text software) during English instruction.	47	64	27	12	0	3.97	0.90
		31%	43%	18%	8%	0%		
7	I modify English learning materials to suit the individual needs of	59	68	14	5	4	4.15	0.92
		39%	45%	9%	3%	3%		



	students with hearing impairments.							
8	I provide scaffolded tasks (e.g., step-by-step instructions) to help students grasp complex English concepts.	50	80	15	1	4	4.14	0.83
		33%	53%	10%	1%	3%		

This table reports how frequently teachers employ specific pedagogical strategies when teaching English to students with hearing impairments. Strategies such as using visual aids (M = 4.55), captioned videos (M = 4.51), and total communication methods (M = 4.39) are used most frequently. Sign language integration, peer-assisted learning, and scaffolding also scored high (M > 4.0). The least frequently used, though still common, was the use of assistive technologies (M = 3.97). Overall, teachers reported regular and consistent use of inclusive instructional techniques.

Table 3: Perceived Effectiveness of Pedagogical Strategies

(Scale: 1 = Not Effective, 2 = Slightly Effective, 3 = Moderately Effective, 4 = Effective, 5 = Highly Effective)

Sr.	Statements of Questions	HE	E	ME	SE	NE	M	SD
9	Visual aids help enhance English vocabulary comprehension in students with auditory impairments.	48	70	21	0	11	3.96	1.06
		32%	47%	14%	0%	7%		
10	Captioned videos and multimedia significantly improve students' understanding of English language concepts.	58	54	16	15	7	3.94	1.15
		39%	36%	11%	10%	5%		
11	Total communication (speech, signs, facial expressions) effectively supports English language learning.	65	54	23	5	3	4.15	0.94
		43%	36%	15%	3%	2%		
12	Integration of sign language increases students' engagement and participation in English lessons.	48	63	24	13	2	3.95	0.97
		32%	42%	16%	9%	1%		
13	Peer-assisted learning improves students' confidence and language acquisition.	40	78	18	13	1	3.95	0.89
		27%	52%	12%	9%	1%		
14	Assistive technology tools contribute meaningfully to students' development in reading and writing English.	74	53	12	11	0	4.27	0.89
		49%	35%	8%	7%	0%		
15	Differentiated English instruction strategies address the diverse learning needs of students with hearing loss.	60	68	15	7	0	4.21	0.81
		40%	45%	10%	5%	0%		
16	Scaffolding techniques lead to better mastery of complex English grammar and sentence structures.	50	76	15	9	0	4.11	0.82
		33%	51%	10%	6%	0%		

This table shows how teachers perceive the effectiveness of various strategies in supporting English language learning for students with auditory impairments. Assistive technology (M = 4.27), differentiated instruction (M = 4.21), and total communication (M = 4.15) were perceived as the most effective approaches. All strategies had average ratings

above 3.9, suggesting that teachers generally believe these methods positively impact learners' language acquisition and classroom engagement.

Table 4: Gender-Based Differences in Pedagogical Strategy Use

Gender	N	Mean	Std. Deviation	df	t	Sig. (2-tailed)
Male	98	66.34	7.52	148	-0.65	0.515
Female	52	67.15	6.83			

This table examines gender-based differences in the use of pedagogical strategies. The mean scores for male (M = 66.34) and female (M = 67.15) teachers show minimal difference, and the result is not statistically significant (t = -0.65, p = 0.515). This suggests that both male and female teachers employ similar instructional strategies when teaching English to students with auditory impairments.

Table 5: Differences Based on Teacher Designation

Designation	N	Mean	Std. Deviation	df	t	Sig. (2-tailed)
Senior Teacher	79	68.54	6.02	148	3.55	0.001
Junior Teacher	71	64.48	7.97			

The data reveal significant differences between senior (M = 68.54) and junior teachers (M = 64.48) in their use of pedagogical strategies (t = 3.55, p = 0.001). Senior teachers are more likely to implement a wider range of inclusive instructional practices, likely due to greater experience, confidence, or training.

Table 6: Differences Based on Type of Institution

Place of Posting	N	Mean	Std. Deviation	df	t	Sig. (2-tailed)
School	80	67.89	7.51	148	2.31	0.022
Centre	70	65.17	6.76			

Teachers from public schools (M = 67.89) reported significantly greater use of pedagogical strategies than those from private centers (M = 65.17), with a statistically significant difference (t = 2.31, p = 0.022). This may reflect differences in training opportunities, resources, or institutional priorities in public vs. private settings.

Table 7: Differences Based on Area of Posting

Area of Posting	N	Mean	Std. Deviation	df	t	Sig. (2-tailed)
Rural	20	71.10	6.41	148	3.04	0.003
Urban	130	65.93	7.18			

Urban and rural teachers showed a statistically significant difference in the use of pedagogical strategies (t = 3.04, p = 0.003), with rural teachers (M = 71.10) reporting higher usage. This could indicate a greater reliance on adaptive strategies in resource-constrained rural environments, or more targeted training efforts.

Table 8: Differences Based on Age Groups

Age	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	76.21	2	38.10	0.72	0.49
Within Groups	7813.13	147	53.15		
Total	7889.34	149			

There were no significant differences in pedagogical strategy usage across age groups (F = 0.72, p = 0.49). This suggests that age does not significantly influence the adoption of

inclusive teaching strategies among English language teachers working with students with hearing impairments.

Table 9: Differences Based on Qualification

Qualification	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	218.59	2	109.30	2.10	0.13
Within Groups	7670.75	147	52.18		
Total	7889.34	149			

The analysis showed no significant differences in strategy use based on educational qualification ($F = 2.10, p = 0.13$). Whether teachers held Master’s, M.Phil., or Ph.D. degrees, their reported usage of pedagogical strategies was statistically comparable.

Table 10: Differences Based on Teaching Experience

Experience	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	274.08	2	137.04	2.65	0.07
Within Groups	7615.26	147	51.81		
Total	7889.34	149			

Though teachers with 6–10 and 11–15 years of experience reported slightly higher use of strategies than those with only 1–5 years, the difference was not statistically significant ($F = 2.65, p = 0.07$). However, the near-significant value suggests that experience may play a role worth exploring further in future research.

Table 11: Correlation between Strategy Use and Perceived Effectiveness

Pearson correlation		Perceived Effectiveness	Pedagogical Strategies
Perceived Effectiveness	Pearson Correlation	1	.349**
	Sig. (2-tailed)		.000
	N	150	150
Pedagogical Strategies	Pearson Correlation	.349**	1
	Sig. (2-tailed)	.000	
	N	150	150

** . Correlation is significant at the 0.01 level (2-tailed).

A statistically significant positive correlation ($r = 0.349, p < 0.01$) was found between the frequency of pedagogical strategy use and perceived effectiveness. This implies that teachers who frequently implement these strategies tend to believe more strongly in their impact, indicating a reciprocal relationship between practice and perception.

Findings

Based on the comprehensive data analysis, the following key findings emerged from the study on pedagogical strategies employed in English language instruction for learners with auditory impairments:

The demographic profile revealed that the teaching workforce is predominantly male (65.3%), with the largest age group being 31–40 years (74.7%). Most respondents were senior teachers (52.7%) holding Master’s degrees (80.7%), and working primarily in urban areas (86.7%) and public institutions (53.3%). An overwhelming majority (88%) had between 1–5 years of teaching experience, indicating a relatively young but academically qualified cohort actively engaged in special education contexts.



Regarding the frequency of pedagogical strategy use, teachers reported consistent implementation of inclusive methods. Visual aids ($M = 4.55$), captioned multimedia ($M = 4.51$), and total communication approaches ($M = 4.39$) were the most frequently used strategies, with sign language ($M = 4.28$) and peer-assisted learning ($M = 4.09$) also commonly applied. Even the least used strategy assistive technology still had a strong mean rating ($M = 3.97$), reflecting widespread adoption of multi-modal and differentiated teaching methods in practice.

In terms of perceived effectiveness, teachers expressed strong agreement on the positive impact of these strategies. Assistive technology ($M = 4.27$), differentiated instruction ($M = 4.21$), and total communication ($M = 4.15$) were rated as most effective, with all strategies scoring above 3.9 on average. This suggests a strong belief among practitioners in the instructional value of inclusive techniques for enhancing English language acquisition among students with hearing impairments.

Further analysis of group differences revealed no significant differences in pedagogical strategy use based on gender ($p = 0.515$), age ($p = 0.49$), or qualification ($p = 0.13$), suggesting uniformity across these demographics. However, significant differences were found based on designation, with senior teachers ($M = 68.54$) using strategies more frequently than junior teachers ($M = 64.48$) ($p = 0.001$). Institution type also mattered, as public school teachers reported higher strategy use ($M = 67.89$) than private school teachers ($M = 65.17$) ($p = 0.022$). Area of posting had a similar impact, with rural teachers ($M = 71.10$) using strategies more frequently than urban counterparts ($M = 65.93$) ($p = 0.003$). While experience was not statistically significant ($p = 0.07$), a near-significant trend suggested more experienced teachers might be more engaged with inclusive pedagogies.

Lastly, a moderate positive correlation ($r = 0.349$, $p < 0.01$) was found between the frequency of pedagogical strategy use and perceived effectiveness. This indicates that the more frequently teachers implement specific strategies, the more effective they believe those strategies to be, affirming the interconnectedness between teaching practices and professional perceptions.

Discussion

The findings of this study offer valuable insights into the pedagogical strategies employed by English language teachers for learners with auditory impairments and reflect a generally strong alignment between instructional practices and inclusive education principles. Teachers often use visual aids, captioned videos, and total communication methods to meet the language and learning needs of students who are deaf or hard of hearing. These approaches help close communication gaps and give students different ways to access language, such as through pictures, gestures, and written words.

The high scores across most teaching strategies show that teachers understand and use inclusive practices in their English classes.

This matches what Marschark and Knoors (2020) found, which highlights how using visual and signed materials can improve understanding and involvement for students with hearing loss. Visual tools and sign language act as support, helping students get more out of the English curriculum even when they hear less.

Teachers also believe these strategies work well, especially assistive technology, individualized teaching, and total communication. This supports Zhao et al. (2023) idea that special tools and flexible teaching greatly help students with hearing loss in their learning and



language growth. Teachers' confidence and positive views about these methods also match the idea that their attitudes and beliefs are key to making inclusion work (Florian & Black-Hawkins, 2011).

The study found no big differences in how teachers use these strategies, whether they are male or female, young or old, or have different levels of education. This shows that inclusive teaching is being used widely by teachers from different backgrounds. However, designation, type of institution, and area of posting emerged as significant factors influencing strategy use. Senior teachers and those working in public and rural settings reported higher usage of pedagogical strategies. This may be due to better institutional support, more training opportunities, or increased teaching experience, which contributes to greater confidence and competence in using inclusive methods.

The moderate positive correlation between frequency of use and perceived effectiveness of pedagogical strategies ($r = 0.349$, $p < 0.01$) is especially noteworthy. It suggests a reciprocal relationship teachers who use strategies more often also perceive them as more effective, which in turn may encourage continued and deeper engagement. This finding reinforces the value of sustained professional development and reflective practice in enhancing inclusive education outcomes.

The study not only confirms existing research on effective instructional practices for students with auditory impairments but also highlights the importance of contextual factors such as teacher experience and institutional environment. There remains a need to further support less experienced and junior teachers, particularly in private and urban settings, through targeted training, access to assistive tools, and opportunities for collaboration with specialists.

Conclusion

The present study aimed to explore the pedagogical strategies employed by English language teachers in instructing learners with auditory impairments, focusing on both the frequency of use and perceived effectiveness of these strategies. The findings reveal that teachers consistently utilize a range of inclusive and adaptive teaching methods particularly visual aids, captioned multimedia, total communication approaches, and sign language to support language development among students with hearing loss. These strategies are not only frequently implemented but are also widely perceived as effective in enhancing students' comprehension, participation, and confidence in English language learning.

Demographic analysis indicated that the majority of respondents were young, well-qualified teachers working primarily in urban, public-sector settings. While gender, age, and qualifications did not significantly influence the use of strategies, statistically significant differences were observed based on teacher designation, institution type, and area of posting. In particular, senior teachers, teachers working in public institutions, and in rural areas reported high engagement with inclusive academic approaches. These findings outline the impact of relevant and experienced factors on instructional practices.

Importantly, a positive relationship between strategy use and frequency of perceived effectiveness suggests that teachers who regularly employ inclusive strategies are more confident under their influence, strengthening the value of ongoing exercises and reflections. Overall, the study highlights the need for continuous business development, targeted training, and equitable resource distribution to further enhance the English language instructions for students with hearing losses in diverse educational settings.



Recommendations

Based on the findings and discussion of this study, the following recommendations are proposed to increase the effectiveness of English language instructions for learners with hearing loss:

1. Targeted training workshops and continuous vocational development (CPD) initiative should be provided to those teachers of English language, especially private and urban schools. These should focus on inclusive academic strategies such as total communication, visual scaffolding, caption media use and accessory technology integration. The training should also address the needs of less experienced and junior teachers to bridge the implementation interval.
2. Given the high perceived effectiveness of assistive technologies, school administrations especially in private and under-resourced schools should invest in tools like hearing devices, speech-to-text software, and interactive digital platforms. Teachers should also be trained in using these tools effectively to support English reading and writing skills among students with hearing impairments.
3. The use of peer-assisted learning and differentiated instruction can be further enhanced by encouraging team-teaching models that include speech therapists, sign language interpreters, and special educators. This collaborative approach ensures that learners receive multi-layered support tailored to their unique needs.
4. Since sign language integration was both frequently used and perceived as effective, it should be normalized and included in mainstream English language classrooms within inclusive schools. Teachers should be provided with basic sign language training, and visual sign-support materials should be developed for regular classroom use.
5. Since rural and public-school teachers reported higher usage of inclusive strategies, educational planners should study and replicate these successful practices in other contexts. Additionally, these schools should continue to receive support in the form of resources, training, and mentorship opportunities.
6. English language instructional resources should be adapted or created to meet the specific needs of learners with auditory impairments. These should include captioned content, sign-supported texts, and interactive visual aids that reflect the local linguistic and cultural context.

References

- Akram, R., & Malik, F. (2021). Visual pedagogies in teaching English to hearing-impaired learners: An experimental study. *Journal of Inclusive Education*, 5(2), 25–38.
- Chung, Y., & Gardner, S. (2023). Technology integration in deaf education: AR and captioned media in language acquisition. *Journal of Educational Technology Research*, 21(1), 44–60.
- Farooq, M., & Hassan, A. (2021). Teacher preparedness for inclusive English language instruction: A study of special education institutes. *Asian Journal of Special Education*, 3(1), 12–29.
- Hall, W., & Hall, M. (2021). Bilingual education and identity in deaf students: A critical analysis. *Deaf Studies Quarterly*, 17(1), 67–83.
- Iqbal, S., & Shah, N. (2022). Assessment accommodations for deaf students in language learning: Challenges and prospects. *International Journal of Educational Research*, 11(2), 33–49.
- Khan, S., Ahmad, M., & Jabeen, N. (2022). Access and effectiveness of assistive technologies in deaf education. *Technology in Special Needs Education*, 7(3), 77–92.



- Luckner, J. L., & Cooke, C. (2010). A summary of the vocabulary research with students who are deaf or hard of hearing. *American Annals of the Deaf*, 155(1), 38–67.
<https://doi.org/10.1353/aad.0.0129>
- Marschark, M., & Hauser, P. C. (2012). *How deaf children learn: What parents and teachers need to know*. Oxford University Press.
- Marschark, M., & Knoors, H. (2020). *Teaching deaf learners: Psychological and developmental foundations*. Oxford University Press.
- Mukherjee, R., & Alam, S. (2023). Peer-mediated learning and its role in English instruction for students with hearing impairment. *Journal of Special Educational Needs*, 9(1), 55–70.
- Nelson, J., & Smith, R. (2020). Total communication and second language acquisition: The case of English instruction in inclusive classrooms. *Educational Review*, 72(4), 490–507.
- Obasi, S. N. (2020). Challenges of teaching English as a second language to students with hearing impairment. *Journal of Special Needs Education*, 18(2), 45–58.
- Okolo, C., & Leung, C. (2020). Scaffolding reading and writing for deaf students: A differentiated approach. *Learning Disabilities Quarterly*, 43(2), 93–105.
- Perera, A., & Wickramasinghe, T. (2021). Enhancing English language fluency through peer interaction in inclusive settings. *South Asian Journal of Language Pedagogy*, 4(1), 18–32.
- Peterson, L., & Richards, M. (2022). Simultaneous communication in language teaching: Enhancing reading skills in deaf learners. *Journal of Deaf Studies and Education*, 10(3), 102–118.
- Roberts, K., Taylor, S., & Hameed, M. (2022). Special educators' training needs for teaching English to deaf students. *Journal of Teacher Education and Practice*, 14(1), 41–57.
- Schick, B., Marschark, M., & Spencer, P. E. (2006). *Advances in the spoken language development of deaf and hard-of-hearing children*. Oxford University Press.
- Spencer, P. E., & Marschark, M. (2010). *Evidence-based practice in educating deaf and hard-of-hearing students*. Oxford University Press.
- Trezek, B. J., & Wang, Y. (2022). Sign bilingualism and English literacy development. *International Journal of Bilingual Education and Bilingualism*, 25(3), 365–382.
- Zhao, Q., Li, J., & Thomas, K. (2023). Impact of assistive technology on deaf learners' academic outcomes: A meta-analysis. *Review of Educational Research*, 93(2), 145–172.