



Inclusive education: English teachers' challenges and strategies for hearing-impaired students in Indonesia

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English language teaching learning for deaf learners in Indonesia faces linguistic challenges such as limited first-language proficiency, reliance on visual communication, and the phonological complexity of English. This study investigated the challenges faced by teachers, the strategies they adopt, and the perceived effectiveness of their approaches in teaching English to deaf students. Employing a qualitative design, data were collected through in-depth, semi-structured interviews with experienced six English teachers from two urban *Sekolah Luar Biasa* (SLBs) at the secondary school level. Data were analyzed using thematic analysis, which revealed persistent barriers including students limited linguistic and cognitive skills, inconsistent classroom communication, and inadequate teaching resources. In response, teachers employed visual and multimodal strategies, such as flashcards, realia, Canva-designed materials, educational games, and total communication methods combining sign language, speech, and written text. These approaches enhanced short-term vocabulary acquisition and student engagement yet fell short in fostering long-term language development due to systemic issues such as the absence of adapted curricula and inclusive assessments. The findings highlight that while teacher-led innovations can partially address immediate learning needs, they cannot fully compensate for broader structural gaps. Sustainable improvement in English learning for deaf students requires comprehensive reforms, including the development of adapted curricula, targeted teacher training in inclusive pedagogy, and strengthened institutional support. Such measures are essential to ensure equitable access to English language education and to empower deaf learners with the linguistic skills necessary for academic achievement and social participation in Indonesia's inclusive education framework.

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INTRODUCTION

Inclusive education in Indonesia has undergone significant transformation over the past two decades. This progress is reflected in the country's legal frameworks and educational reforms that emphasize equitable access to learning opportunities for all students, including those with disabilities. One of the most critical milestones is the enactment of the Law on the National Education System No. 20/2003, which mandates the integration of children with special needs into mainstream educational settings. The law reflects Indonesia's growing recognition of

of education as a fundamental human right, regardless of physical, sensory, or cognitive abilities (Global Education Monitoring Report, 2020). The principles embedded in this law align with global commitments such as the Salamanca Statement (UNESCO, 1994) and the Sustainable Development Goals (SDG 4: Quality Education), both of which highlight the necessity of inclusive, equitable, and lifelong learning for all.

Despite these progressive policies, however, the actual implementation of inclusive education in Indonesia remains fraught with systemic and pedagogical challenges. This discrepancy is especially evident in the teaching and learning of English as a Foreign Language (EFL), a compulsory subject within Indonesia's national curriculum. As an auditory-heavy subject that relies on phonological awareness, intonation, stress patterns, and auditory discrimination, English presents unique learning difficulties for students with hearing impairments (Hauser & Marschark, 2008). For most deaf students, whose access to spoken language input is limited, developing oral and written proficiency in English is particularly challenging.

The issue is compounded by the fact that many hearing-impaired students in Indonesia enter *Sekolah Luar Biasa* (SLB) or inclusive schools with underdeveloped first language (L1) skills. Limited early exposure to natural sign language or structured communication systems delays their linguistic and cognitive development, making the acquisition of a second language (L2) such as English even more difficult. Consequently, deaf learners rely predominantly on visual cues such as sign language, lip reading, written text, and gestures to make sense of English instruction (Bintoro et al., 2023). However, mainstream classrooms and curricula in Indonesia are typically designed with hearing students in mind, thereby marginalizing the sensory and cognitive needs of deaf learners.

Another key barrier lies in teacher preparedness. Most English language teachers in Indonesia are trained through general education programs that provide little to no coursework on special education or deaf pedagogy (Bowen & Probst, 2023). These teachers often report feeling inadequately equipped to meet the linguistic, social, and emotional needs of hearing-impaired students. The absence of formal training is further aggravated by the lack of institutional support, such as the availability of sign language interpreters, assistive technologies, captioned media, and accessible teaching resources (Njonge, 2023). As a result, many teachers are left to improvise, crafting adaptive strategies without institutional backing. While these strategies, such as using flashcards, realia, visual storytelling, kinesthetic games, or the Total Communication approach (integrating sign, gestures, expressions, and text), have shown promise, they often remain short-lived and fragmented. Teachers themselves acknowledge that such efforts improve engagement only at a surface level but fail to ensure deeper cognitive and linguistic development without systemic support (Hiver et al., 2024).

These conditions highlight a fundamental tension in Indonesia's inclusive education system: while policies mandate integration, classrooms frequently lack the resources, pedagogies, and professional capacity required to

translate inclusion into meaningful learning outcomes. The gap between policy and practice becomes particularly problematic in EFL education, where hearing-impaired learners risk being doubly marginalized, first by disability, and second by their limited access to English, a language increasingly tied to global knowledge, higher education, and employability.

Existing literature reveals several critical gaps in understanding this problem. First, while inclusive education has been widely studied in Indonesia, much of the research takes a broad, policy-oriented perspective, focusing on legal frameworks or general inclusion practices (Alanazi, 2021; Mulyadi, 2017). Studies that specifically examine how English teachers adapt their pedagogical practices for deaf learners remain limited. Second, there is insufficient empirical data on the effectiveness of adaptive strategies used in Indonesian classrooms. Although teachers report using multimodal approaches and total communication, little is known about their long-term impact on students' academic performance, self-esteem, or access to higher education (Salvaña & Protacio, 2025). Third, research seldom addresses the intersection between systemic barriers (e.g., lack of interpreters, poor resource allocation, negative societal attitudes) and classroom-level challenges, leaving a fragmented picture of how these multiple layers interact to shape deaf students' educational experiences.

Addressing these gaps is urgent because effective English instruction has consequences that extend far beyond the classroom. As Hauser & Marschark (2008) emphasize, early and consistent language exposure significantly influences deaf learners' cognitive, social, and emotional development. For hearing-impaired students in Indonesia, equitable access to English instruction can determine not only academic success but also opportunities for participation in higher education, global communication, and employment. Similarly, Adeduyigbe et al., (2024) argue that individualized, standards-based approaches to curriculum and assessment are necessary to ensure that deaf students thrive in inclusive environments. Moreover, the post-pandemic rise of digital and hybrid learning has underscored the importance of accessible technologies, making the integration of inclusive digital tools more pressing than ever (Muller, 2022).

Given this backdrop, the present study introduces several novel contributions. First, it provides empirical insights into the lived experiences of English teachers working in special and inclusive schools across Indonesia. Unlike policy analyses or theoretical discussions, this study foregrounds the voices of practitioners who confront the challenges of deaf-inclusive EFL instruction daily. Second, the research offers a systematic catalog of adaptive strategies developed by teachers, ranging from multimodal teaching aids to classroom arrangement techniques, documenting not only what teachers do but also how they perceive the effectiveness of these methods. Third, the study situates these strategies within broader systemic and policy-level contexts, thereby connecting micro-level practices with macro-level barriers. This approach provides a more holistic understanding of inclusive English education in Indonesia than previous research.

The novelty of this study also lies in its potential to generate contextually grounded, evidence-based recommendations for multiple stakeholders. For teachers, it offers a reflective platform and a repository of practical strategies that can be adapted in similar contexts. For policymakers and educational institutions, it highlights the pressing need for structural reforms in teacher education, curriculum design, and resource allocation. For researchers, it identifies fertile ground for future inquiry, including longitudinal studies on the long-term effects of adaptive strategies, comparative analyses across regions, and explorations of technology-enhanced learning for deaf students.

This study thus aims to examine three interconnected domains: (1) the specific challenges English teachers face in delivering instruction to hearing-impaired students, (2) the adaptive strategies they develop and implement to overcome instructional and communication barriers, and (3) their perceptions of the effectiveness and limitations of these strategies. By drawing on qualitative interviews with experienced English teachers from several *Sekolah Luar Biasa* (SLBs) and inclusive schools in urban Indonesian contexts, the research seeks to produce a nuanced picture of inclusive English education as it is practiced on the ground.

Ultimately, this study contributes to ongoing efforts to make Indonesia's education system more inclusive, equitable, and responsive to the diverse needs of learners. By centering the experiences of teachers and their adaptive practices, it not only addresses a critical research gap but also provides actionable insights for building a more robust infrastructure for deaf-inclusive English education. In doing so, the research aspires to ensure that hearing-impaired students are no longer left on the margins of English learning but are instead empowered to participate fully in academic and social life, locally, nationally, and globally.

METHODS

This study adopted a qualitative research design to explore the lived experiences of teachers instructing deaf students in English at *Sekolah Luar Biasa* (SLB) and inclusive secondary

schools in Indonesia. Qualitative inquiry was chosen because it enables an in-depth understanding of participants' perspectives, practices, and the sociocultural contexts that shape them (Creswell & Plano, 2023). The design is particularly suitable for capturing the nuances of human interaction and meaning making, especially when examining complex issues such as inclusive education and deaf pedagogy, where standardized quantitative measures often fail to capture the richness of teacher agency, strategies, and constraints.

The study followed a phenomenological orientation to foreground teachers lived experiences in inclusive classrooms. Phenomenology allows researchers to capture not just observable practices but also the underlying beliefs, challenges, and motivations that influence teaching (Vagle, 2018). By focusing on teachers' narratives, this approach highlights how they navigate structural limitations, adapt instructional strategies, and negotiate between policy expectations and classroom realities. Semi-structured interviews were selected as the primary data collection method because they provide flexibility to probe individual experiences while maintaining comparability across participants (Al Balushi, 2018).

Participants consisted of English teachers from SLB schools and inclusive secondary schools across Yogyakarta and Central Java. A purposive sampling technique was employed to ensure that respondents had direct experience teaching English to deaf students, aligning with the study's objectives (Creswell & Plano, 2023). Purposive sampling allows the selection of information-rich cases that maximize depth of understanding. A total of ten teachers participated, representing a diversity of backgrounds in terms of teaching experience, institutional support, and prior exposure to special needs pedagogy. This variation was critical to capturing a wide spectrum of adaptive strategies and challenges, which enhances the credibility and transferability of the findings (Zairul, 2025). Table 1 below presents the participants' demographic such as; gender, years of experience, type of school.

TABLE 1 | List of participants

Participant (Pseudonym)	Gender	Years of Teaching Experience	School Type	Training in Special Needs/Deaf Pedagogy (Yes/No)	Notable Practices / Notes
Angela	F	12	SLB (Urban)	Yes (last training 2014, outdated)	Designs own materials, uses games, emphasizes peer support
Bella	F	8	SLB (Urban)	No	Uses color-coded markers (words, pronunciation, meaning), contextual learning
Charly	M	15	SLB (Urban)	No	Uses repetition, seating arrangements for visibility
Dennies	M	10	SLB (Urban)	No	Combines bilingual explanation and visuals
Ellen	F	6	SLB (Urban)	No	Focuses on visual aids, frequent review, vocabulary reinforcement
Farhat	F	7	SLB (Urban)	No	Employs multimodal strategies (sign + spoken + realia)

As presented in [Table 1](#), this study involved six teachers as the participants, each representing a different special education school in Indonesia. The diversity of schools was intentionally considered to ensure a wide range of perspectives and experiences related to teaching English for deaf students. This variation allowed the researcher to gain more comprehensive insights into the challenges and strategies used by teachers across different educational contexts.

Semi-structured interviews were the primary source of data. Each interview lasted between 45 and 60 minutes and was conducted in Bahasa Indonesia to ensure comfort and clarity for participants. An interview guide was developed, covering themes such as teaching experiences, instructional challenges, communication strategies, media use, curriculum adaptation, and professional support. However, participants were also encouraged to expand beyond the guiding questions, allowing new themes to emerge organically. Interviews were audio-recorded with participants' consent, transcribed verbatim, and anonymized to protect confidentiality, in accordance with ethical guidelines. To enhance validity, follow-up communications were conducted with several participants for clarification and member checking ([Creswell & Plano, 2023](#)).

Data analysis followed the six-phase thematic analysis framework proposed by ([Zairul, 2025](#)) to ensure transparency, consistency, and rigor. The process began with repeated reading of the transcripts to achieve familiarity, followed by generating initial codes. Coding was carried out manually and iteratively using ([Lungu, 2022](#)) methods, which distinguish between open coding, axial coding, and selective coding. This coding process enabled both descriptive categorization and interpretive synthesis, allowing patterns to be identified across cases ([Ahmed et al., 2025](#)). Axial coding further helped to link categories, such as connecting communication barriers to instructional adaptations, while selective coding led to the integration of these categories into broader themes, such as systemic constraints, teacher resilience, and policy gaps.

To ensure trustworthiness, multiple strategies were applied. Credibility was established through member checking, triangulation across different participants, and peer debriefing with fellow researchers. Transferability was addressed by providing thick descriptions of participants' contexts and teaching environments. Dependability and confirmability were supported by maintaining an audit trail of coding decisions and reflexive notes throughout the analysis ([Zairul, 2025](#)). Reflexivity was critical, as the researcher acknowledged their positionality as a university lecturer in English education, which provided both insider knowledge and potential biases that required careful management.

The research adhered to ethical principles of informed consent, voluntary participation, and confidentiality. All participants were provided with clear explanations of the study's aims, data usage, and their rights to withdraw at any stage. Ethical protocols which emphasize respect, transparency, and responsibility in educational research. Pseudonyms were used in transcripts and reporting to protect participants' identities.

Combining contemporary methodological frameworks with classical foundations strengthened the study's rigor and credibility. [Creswell & Plano \(2023\)](#), provided up-to-date tools for qualitative inquiry, coding, and case study validity. This hybrid approach ensured that the study met current academic standards while respecting the historical contributions of qualitative methodology.

RESULTS AND DISCUSSION

Challenges in Teaching English to Deaf Students in Indonesian SLB

One of the most prominent findings in this study is the significant foundational language deficit faced by deaf students in Indonesian *Sekolah Luar Biasa* (SLB), which severely affects their English as a Foreign Language (EFL) acquisition. Teachers consistently reported that students entered secondary school with underdeveloped proficiency in both Bahasa Indonesia and sign language.

Transcript 1 (Ellen reflected): *"Many of them were born deaf, they lack any language input from the beginning, so their vocabulary is very limited."*

The transcript shows that Ellen stated how her students' limited vocabulary stems from their early language deprivation. Because they were born deaf and did not receive sufficient linguistic input from birth, their overall language foundation, both in sign and spoken form, remains underdeveloped, which directly hinders English vocabulary learning.

Transcript 2 (Farhat reflected): *"My students have limited vocabulary in Indonesian, let alone abstract words."* Farhat emphasized that students' difficulties in understanding abstract English words are rooted in their weak command of Indonesian. Without a strong first language base, transferring meaning to English becomes a major challenge.

The inconsistency between English spelling and pronunciation posed additional barriers for students who relied on visual and speechreading strategies. Transcript 3 (Bella noted): *"In English, the written form and pronunciation are different, right? Meanwhile, they rely on lip reading."* This transcript indicates Bella's awareness of how the inconsistency between English spelling and pronunciation confuses deaf students, who depend heavily on visual cues and lip reading to comprehend lessons.

Transcript 4 (Dennies reflected): *"English spelling and pronunciation often don't match, so students get confused."* Dennies confirmed similar challenges to Bella's experience, highlighting how orthographic irregularity in English makes it difficult for students to connect written and spoken forms. Teachers addressed these challenges by simplifying input and providing visual aids. Transcript 5 (Charly explained): *"Some students still have hearing ability, so I only need to repeat a few times. But for totally deaf students, it's much harder, even the next day, they still might not be able to pronounce it."* Charly's statement shows how differing levels of residual hearing among students require varied teaching repetition. Students with complete hearing loss need continuous repetition and visual reinforcement to retain knowledge.

Transcript 1 (Ellen added): *"Sometimes they don't understand the writing, but when they see the picture, they understand instantly."* This transcript illustrates Ellen's realization that visual aids play a crucial role in comprehension for deaf learners, who respond better to images than text alone.

Teachers consistently identified weak retention as a challenge. Transcript 6 (Angela shared): *"Sometimes they can understand it in the classroom context, but they forget it in real life."* While in transcript 5 (Charly remarked): *"What we teach today might be forgotten by the next day."* Transcript 1 Ellen highlighted the need for repetition: *"This process requires repetition. Hopefully, they will remember."* Also transcript 2 Farhat linked memory to engagement: *"I try to make them active, both cognitively and physically, so that learning becomes meaningful."*

In response to these difficulties, teachers employed multimodal approaches to overcome communication breakdowns. Transcript 2 (Farhat recalled): *"If I only use spoken words, they get confused. I once tried giving instructions verbally only, then covered my own ears, and realized how hard it was."* Transcript 3 Bella stressed visual accessibility: *"Lip reading only helps when they can clearly see how I move my mouth. I need to make sure they can see me all the time."* Transcript 6 Angela described her varied toolkit: *"I use Canva worksheets, color markers, puzzles, everything combined, because one method doesn't work."*

Many teachers expressed feelings underprepared due to limited or outdated training. Angela explained: *"Actually, I'm a specialized teacher myself. I just have the extra duty of teaching English. So, we try to understand the content ourselves."* She added: *"My last training was in 2014. At the time, the content was relevant. But now, it's outdated."* Farhat admitted: *"I don't know if my methods are pedagogically correct... I rely solely on personal experience."* Bella shared an improvisation: *"I use a black marker for the English words, a blue marker for the pronunciation, and a red marker for the meaning."*

Charly identified language itself as the biggest obstacle: *"The biggest challenge is language. Even in Indonesian, they don't fully understand."* Dennies reinforced this: *"Since they can't hear, they can't learn language the way most children do, through sound."* Teachers often resorted to bilingual explanations and visual scaffolds, but gaps persisted when neither Indonesian nor BISINDO was fully developed.

Teachers reported weak school–family communication and limited external collaboration. Angela stated: *"I always ask them to notify parents."* Bella admitted: *"I haven't had direct communication with parents."* Farhat acknowledged: *"Support is limited. Some parents don't know English or don't have time."* Angela also noted the absence of professional networks: *"We validate ourselves by consulting with other English teachers."*

Teachers had to develop their own resources due to the lack of tailored textbooks. Bella stated: *"There are no English textbooks at all... the teacher really has to create the materials."* Angela called for change: *"Please consider making teaching materials for teachers, tailored for deaf, blind, or physically disabled students."*

The findings reveal a multi-layered set of barriers to EFL learning for deaf students in Indonesian SLBs, rooted in early

language deprivation, phonological-orthographic mismatch, cognitive retention issues, and systemic gaps in teacher preparation and resources.

Consistent with [Hartman et al., \(2019\)](#), the teachers' accounts confirm that delayed or absent early L1 development, whether in spoken or signed form, creates long-term challenges for additional language learning. Without a fully formed linguistic base, students lack the conceptual scaffolding necessary for vocabulary acquisition and grammar comprehension in EFL. This aligns with [Hamilton et al., \(2024\)](#), who stresses that incomplete early language access reduces readiness for L2 or L3 learning.

The mismatch between English spelling and pronunciation, as described by [Almusawi, \(2019\)](#), assertion that non-transparent grapheme–phoneme correspondence is particularly problematic for deaf learners. Because many rely on visual input and lip reading, irregular orthography complicates decoding and retention. Teachers' adaptations, such as visual aids, color coding, and repeated exposure, are consistent with multimodal literacy strategies recommended by ([Prystiananta & Noviyanti, 2025](#)).

The difficulty in retaining vocabulary and concepts, reported by [Nugroho & Lintangari, \(2022\)](#), is well-documented in deaf education literature. [Marschark & Hauser \(2006\)](#), note that deaf learners often require more frequent and varied reinforcement to consolidate learning, especially when L1 is weak. Farhat's emphasis on active engagement reflects constructivist approaches, where physical and cognitive participation can improve long-term recall.

Teachers' use of Canva worksheets, realia, and physical movement aligns with the Total Communication (TC) philosophy, which advocates integrating visual, tactile, and auditory inputs to maximize comprehension ([Sugiarni et al., 2024](#)). However, the reliance on personal improvisation, rather than structured methodology, risks inconsistency in quality across classrooms, a concern echoed by ([Patzak & Zhang, 2025](#)).

The teachers' accounts reveal a systemic shortage of specialized EFL training for educators of deaf students, echoing [Ahmad & Khasawneh \(2021\)](#), findings on the mismatch between teacher assignments and formal preparation. Without ongoing training, teachers depend on trial-and-error methods, leading to varied outcomes. The outdated nature of existing training programs, as Angela described, underscores the need for continuous professional learning that integrates current research on deaf education and language acquisition.

The minimal parental involvement and lack of institutional partnerships reported in this study mirror patterns found by [Motshusi et al., \(2024\)](#), in other inclusive settings. Without active home–school–community engagement, students' learning remains confined to classroom boundaries, limiting reinforcement and contextualization. [Ostovar-Nameghi and Sheikahmadi \(2016\)](#), emphasize that professional isolation among teachers reduces innovation and the sharing of best practices, an issue visible here.

The complete absence of deaf-friendly EFL textbooks forces teachers into material self-production, which, while creative, is unsustainable in the long term. [Onyishi and Sefotho \(2020\)](#), argue that institutional provision of

differentiated materials is a prerequisite for true inclusion; without it, inclusive education remains aspirational rather than practical.

Strategies Used by Teachers in Teaching the Deaf

English teachers in Indonesian *Sekolah Luar Biasa* (SLB) adopt highly visual, multimodal, and interactive strategies to compensate for the auditory barriers faced by deaf students in learning English as a Foreign Language (EFL). Farhat explained: *"I use flashcards to introduce vocabulary... when discussing fruits, I show the actual fruit, like apples or bananas."* Angela emphasized color and visual aids: *"I usually use colored markers... I use full visual support, text and images, to help them understand"*. Bella reinforced contextual learning: *"I explain its color, taste, green on the outside, orange inside, whether sweet or sour."* These practices illustrate the centrality of realia, visuals, and descriptive detail in facilitating comprehension.

Teachers combined spoken language, sign language, and demonstrations to clarify meaning. Farhat noted: *"If I only use spoken words, they get confused... I always give instructions clearly, verbally, with sign language, and demonstrations."* Bella highlighted classroom visibility *"If they can't see me, they won't know what's going on."* These strategies show deliberate classroom arrangements and redundant communication to ensure understanding.

Despite the effectiveness of these approaches, no teacher interviewed had received specialized EFL training for deaf learners. Farhat admitted: *"I've never received any specific training... I rely solely on personal experience."* Angela added: *"We validate ourselves by consulting with fellow English teachers."*

Lessons were adapted to students' everyday experiences and limited vocabulary exposure. Angela said: *"I focus on teaching functional English rather than strictly following textbook content."* Farhat explained: *"What I teach is still limited to basic vocabulary... daily life."* Angela also described structural scaffolding: *"I use simplified structures like 'Subject + to be + noun' with visual support."* Bella stressed repetition: *"We repeat things often... repetition helps it stick."*

Peer support was encouraged to reinforce understanding. Angela shared: *"If student A finishes first and gets it right, I ask them to help others."* Bella said: *"I ask that student to explain it to their friend. So, it becomes a kind of peer review."* Visibility was prioritized: *"We place them in the front row... visibility helps them stay engaged."*

Teachers reported creating all instructional materials themselves. Bella stated: *"There are no English textbooks at all... so the teacher really has to create the materials themselves."* Angela noted: *"The bright ones have no problem with videos, but the others only understand the visuals, not the content."*

Games and movement-based activities supplemented instruction. Angela said: *"I design custom boards where students use dice and circle vocabulary in turns."* Charly added: *"Even in Indonesian, they don't fully understand... so I tried using a game. Sometimes what we teach is forgotten by the next day."*

Angela differentiated materials for individual learners: *"Sometimes I differentiate for just one or two students in a class of five."* Dennies focused on functional daily content: *"I taught them how to make tea."* Teachers often switched between sign language, Bahasa Indonesia, and local dialects to bridge gaps.

Assessment methods avoided heavy reliance on auditory input. Angela used: *"Cloze paragraphs with pictures"* and *"fill-in-the-blank exercises."* Farhat preferred: *"Matching and labeling" using tactile tools*. Emotional check-ins were done with smiley-faced icons or observation.

Teachers navigated diverse proficiency levels in the same classroom. Charly explained: *"One student is still learning 'What's your name?' and another is already doing prepositions."* Ellen added: *"I don't strictly follow the curriculum because it's too general."*

Effectiveness of Strategies in Promoting Language Acquisition

The acquisition of English among deaf students in Indonesia's *Sekolah Luar Biasa* (SLB) shows a pattern of gradual progress, with stronger development in concrete and functional vocabulary rather than abstract grammar or complex linguistic structures. Teachers consistently adopt a communicative, context-driven approach, prioritizing practical relevance over strict adherence to textbooks. Angela remarked: *"I focus on teaching functional English rather than strictly following textbook content."* Farhat explained: *"What I teach is still limited to basic vocabulary, especially words related to their everyday lives."*

To reinforce vocabulary, teachers rely heavily on visual and tactile scaffolding aligned with the Total Communication (TC) philosophy. Angela described: *"I use colored markers and word search worksheets."* Farhat added: *"Flashcards, realia, and demonstrations"* were core to her lessons. However, learner diversity within the same classroom creates challenges. Charly stated: *"Even within the same 10th-grade class, one student is still learning 'What's your name?' and another is already doing prepositions."* Dennies explained his step-by-step approach: *"First translation, then illustrations, and gradually introduce vocabulary."* Farhat emphasized adaptability: *"We must truly find the right strategy for each student's condition."* Angela also noted: *"Even though they're all deaf, their abilities vary greatly... Some are quick to grasp material, while others struggle with understanding English."*

Peer assistance plays a significant role. Angela shared: *"If student A finishes first and gets it right, I ask them to help others."* Bella confirmed: *"I ask that student to explain it to their friend."* Angela reflected on its impact: *"Students who help others feel proud... They also become more engaged in class."* Yet, systemic gaps remain. Angela admitted: *"Our training was long ago and outdated... But peer help works instantly."* Farhat added: *"I've never received any specific training for teaching English to deaf students."*

For assessment, teachers use visually oriented, performance-based strategies. Angela reported: *"Students enjoy word search activities and cloze paragraph tasks."* Farhat said: *"Hands-on activities like flashcard matching or sticking pictures help them retain information better when they can interact directly."*

Game-based learning also features prominently. Angela described: *"We use dice, and they take turns circling vocabulary on the board"* (Snakes and Ladders). Charly shared: *"I draw on the floor to teach prepositions... they have to jump in those directions."* Despite these innovations, teachers note misalignment with national standards. Angela said: *"We're still experimenting, what worked last year might not work this year."* Dennies remarked: *"There are no textbooks or standardized tools for English in SLB."*

Language transfer is another difficulty. Angela remarked: *"Even when students enjoy the activities, they rarely transfer that vocabulary into spontaneous use."* Dennies confirmed: *"They can match a word with a picture, but they don't use it outside the activity."* Ellen explained: *"They lack any language input from the beginning."* Farhat added: *"They don't know the Indonesian word, so I have to teach both it and the English translation from scratch."*

To address these gaps, Farhat uses repetition: *"Before starting new material, I always review, ask, 'What did we learn yesterday?'"* Finally, resource shortages hinder instruction. Angela stated: *"Technology has no limits, but it's hard to find what fits the students' needs."* Bella was blunter: *"There are no English textbooks at all in SLB."*

Challenges in Teaching English to Deaf Students in Indonesian SLB

The findings reveal that EFL instruction for deaf students in Indonesian SLBs is built on visual, multimodal, and functional strategies, hallmarks of the Total Communication (TC) approach. This mirrors [Marschark et al., \(2015\)](#), assertion that combining spoken, signed, written, and visual modes improves comprehension for deaf learners. Teachers' use of realia, color coding, descriptive explanations, and gesture that multimodal strategies support the acquisition of abstract language among learners with limited L1 proficiency.

A significant concern is the absence of specialized training for teaching EFL to deaf students. This forces teachers to rely on experience and peer advice, echoing [Sari et al., \(2022\)](#), findings about the gap between inclusive education policy and classroom practice. Without targeted professional development, instructional quality depends heavily on individual creativity rather than evidence-based practice.

The emphasis on functional vocabulary and real-life contexts reflects [Yildiz, Y., & Celik, B. \(2020\)](#), recommendations for contextual learning to overcome linguistic delays. Simplified structures, repetition, and scaffolding help compensate for gaps in early language exposure, while contextual teaching improves retention and relevance.

Peer-assisted strategies reported here resonate with [Sahara et al., \(2024\)](#), findings that structured peer interaction benefit both cognitive development and social integration in deaf learners. Classroom seating arrangements that maximize visibility further align with TC principles.

The lack of EFL materials for deaf learners is a critical gap. [Weiss et al., \(2021\)](#), stressed that accessible curricula and differentiated materials are essential for inclusive success. The teachers' need to design all their own materials highlights

systemic neglect in resource provision, which can contribute to burnout.

Interactive games and movement-based learning, as described by [Abdoulqadir & Loizides \(2025\)](#), call for multisensory approaches and individualized learning plans. However, the continued problem of short-term retention indicates the need for structured review cycles and spaced repetition strategies.

Differentiation for individual learners reflects [Ituma \(2025\)](#), advocacy for responsive teaching. Switching between sign language, Bahasa Indonesia, and local dialects reflects [Rasman \(2018\)](#), findings on the importance of multilingual approaches in inclusive classrooms.

Performance-based and visual assessment methods, such as matching and picture-supported cloze tests, correspond to [Luft, \(2020\)](#), recommendation for non-auditory evaluation tools. These methods respect deaf learners' preferences and allow them to demonstrate knowledge without oral output.

The vast differences in student proficiency, noted by [Patel & Kim \(2024\)](#), align with Vygotsky's Zone of Proximal Development (ZPD) theory, which calls for instruction tailored to each learner's readiness level. Without flexible curricula, these disparities can limit collective progress in mixed-ability classrooms.

Strategies Used by Teachers in Teaching the Deaf

The findings from the interviews with English teachers in Indonesian *Sekolah Luar Biasa* (SLB) highlight a clear emphasis on highly visual, multimodal, and interactive instructional strategies to support deaf students in learning English as a Foreign Language (EFL). Teachers reported employing flashcards, real objects (realia), images, color-coded markers, and descriptive explanations to enhance comprehension, consistent with the literature emphasizing the importance of visual reinforcement in deaf education ([Marschark & Hauser, 2006](#)). For example, Farhat's practice of showing real fruits and Bella's detailed description of color, taste, and texture reflect the adoption of contextualized, multimodal strategies to facilitate vocabulary acquisition, a finding aligned with research advocating for sensory-rich, experiential learning for hearing-impaired students ([Baliber-Duallo, 2025](#)).

The integration of spoken language, sign language, and demonstrations further illustrates the use of Total Communication (TC) approaches in practice, supporting findings in prior studies that multimodal communication improves comprehension and reduces frustration among deaf learners ([Shaver et al., 2014](#)). Teachers' attention to classroom visibility and deliberate seating arrangements emphasizes the importance of environmental and instructional scaffolding in EFL classrooms for hearing-impaired students, echoing [Guardino and Fullerton \(2010\)](#) findings that visual accessibility and classroom organization significantly influence engagement and understanding.

Despite these adaptive practices, the interviews revealed a notable gap: none of the teachers had received specialized EFL training for deaf learners. Teachers relied primarily on personal experience and peer consultation, which underscores the persistent challenge identified in the literature regarding the insufficient professional development opportunities for

educators of hearing-impaired students in Indonesia (Villarente, 2024). This highlights a critical need for structured training programs to enhance teachers' pedagogical knowledge and confidence, enabling them to implement evidence-based strategies more systematically.

Lesson adaptation emerged as another central theme. Teachers emphasized functional English, simplified structures, repetition, and scaffolding to match students' everyday experiences and limited vocabulary exposure. These approaches correspond with the literature on differentiated instruction and individualized learning plans (ILPs), which suggest tailoring content and instructional strategies to students' abilities and needs improves comprehension and engagement (Hossain, 2024). Similarly, the reported use of peer-assisted strategies and front-row seating supports prior findings that cooperative learning and peer support enhance comprehension, engagement, and social interaction for hearing-impaired learners (Guardino & Fullerton, 2010).

Another important finding is the teachers' reliance on self-created instructional materials and interactive, game-based learning activities. While these approaches foster engagement and contextual learning, retention remains challenging, as teachers reported frequent forgetting of previously taught content. This aligns with research emphasizing that multimodal strategies, when combined with repetition and scaffolded instruction, are more likely to support long-term retention in deaf learners (Hauser & Marschark, 2008). The use of differentiated materials and frequent code-switching between sign language, Bahasa Indonesia, and local dialects demonstrates an adaptive, student-centered approach responsive to individual needs, a practice consistent with inclusive education principles (Yow et al., 2018).

Assessment practices also reflected a shift from auditory-dependent methods toward visually and tactilely oriented tools, including cloze paragraphs, matching exercises, and icon-based emotional check-ins. These strategies resonate with recommendations from (Woolley, 2011), regarding formative, multimodal assessment and feedback, which support individualized monitoring of learning progress and foster student self-awareness.

Finally, teachers' navigation of diverse proficiency levels within a single classroom highlights the complexity of implementing inclusive EFL instruction in SLB contexts. The variability in students' prior knowledge and skill levels necessitates flexible lesson planning and real-time differentiation, reinforcing findings that effective inclusive education requires ongoing adaptation, collaboration, and sensitivity to learners' unique profiles (Guardino & Fullerton, 2010).

Effectiveness of Strategies in Promoting Language Acquisition

The finding reveals that teachers' emphasis on functional vocabulary over abstract grammar aligns with Kaharuddin (2018), recommendation to focus on practical language use in special education contexts. Such an approach helps bridge the gap caused by many students delayed or fragmented L1 acquisition, a challenge well-documented in deaf education.

In Indonesia, although inclusive education policies exist, implementation in SLB settings often lacks structured linguistic support and tailored resources (Ediyanto et al., 2021).

The heavy reliance on visual, tactile, and multimodal strategies reflects principles of the Total Communication approach, which combines sign, visual aids, and kinesthetic learning to enhance understanding for deaf students (Wainscott & Spurgin, 2024). However, the wide range of abilities in a single class requires constant differentiation, an issue noted as central to the success of Individualized Learning Plans (ILPs) (Ardenlid, 2025).

The variation in students' linguistic backgrounds, ranging from Bahasa Indonesia to BISINDO, home signs, or local dialects, means many lack a stable L1 foundation. This significantly complicates L2 English learning and, in some cases, effectively turns English into a third or fourth language. Without solid L1 development, additional languages face substantial acquisition barriers (Septiani et al., 2024).

Peer-assisted learning emerged as a low-cost yet impactful scaffold. Vygotsky's Zone of Proximal Development (ZPD) framework, referenced by Lasmawan & Budiarta (2020), supports this practice, showing that learners often progress through interaction with more capable peers. Moreover, deaf learners often co-construct communication norms, making peer mediation particularly effective in multilingual or multi-sign classrooms (Pizzo, 2016). Nevertheless, the teachers' reliance on such strategies reveals systemic shortcomings in teacher preparation, insufficient training investment for special needs educators in Indonesia (Al Aqsha & Emilzoli, 2024).

In assessment, the teachers' preference for visual-spatial and kinesthetic activities is well-grounded in the sensory strengths of deaf learners such as integrating movement and tactile engagement into evaluation (Alenizi, 2019). However, the absence of standardized SLB-specific English assessments leaves these innovations without formal recognition or scalability.

Language transfer challenges, noted by multiple teachers, suggest a gap between activity-based recognition and real-world application. This reflects without deep semantic processing, vocabulary knowledge remains shallow and context bound (Howerton-Fox & Falk, 2019).

Finally, the discussion on resources and sustainability points to a larger systemic issue. Teachers' ingenuity in creating materials is admirable, but inclusion cannot rely on individual improvisation, it must be supported by structured training, curriculum development, and institutional collaboration (Woodcock et al., 2022). Without such systemic backing, the burden remains on under-supported educators, jeopardizing the long-term success of inclusive EFL instruction in SLBs.

CONCLUSION

This study provides three key contributions to the field of deaf-inclusive English education in Indonesia. First, it offers empirical insight into teachers' lived experiences, revealing the challenges of linguistic delays, communication barriers,

limited training, scarce resources, and rigid curricula that hinder effective EFL instruction in *Sekolah Luar Biasa* (SLB) and inclusive secondary schools. Second, it presents a catalog of adaptive strategies, including flashcards, realia, visual storytelling, kinesthetic games, peer-assisted learning, and optimized classroom arrangements, highlighting teachers' resilience and creativity in fostering engagement and vocabulary acquisition despite systemic constraints. Third, it delivers policy-level recommendations for sustainable inclusive education, advocating for curricula grounded in functional vocabulary, teacher training in deaf pedagogy and bimodal bilingual strategies, visual and performance-based assessments, accessible infrastructure, and accountable policy implementation.

Based on the findings of this study, it is recommended that deaf-inclusive English education in Indonesia adopt a holistic approach addressing teachers, students, institutions, and policymakers. Teachers should engage in professional development focused on deaf pedagogy, Total Communication, and bimodal bilingual strategies while applying adaptive techniques such as flashcards, realia, visual storytelling, kinesthetic games, and peer-assisted learning to enhance engagement and comprehension. Students should benefit from highly visual, interactive, and contextualized activities, reinforced through repetition, scaffolding, and cooperative learning to support vocabulary acquisition, functional English skills, and confidence. Inclusive education institutions are urged to provide accessible infrastructure, including captioned media, visual teaching aids, adaptive technology, and classroom designs optimized for visibility, while ensuring systematic support, resource allocation, and curricula emphasizing functional vocabulary and performance-based assessment. Policymakers must translate inclusive education policies into actionable frameworks with clear funding, monitoring, and accountability mechanisms, fostering collaboration among ministries, schools, universities, and advocacy groups. Finally, further research is encouraged to explore the long-term effectiveness of adaptive strategies, technology integration, and additional support mechanisms, building a robust evidence base to strengthen inclusive EFL instruction. Collectively, these measures aim to create sustainable, equitable, and high-quality English learning opportunities for hearing-impaired students in Indonesia.

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