Teachers' Perspective on Using Sign Language in English Instruction: Challenges in Malaysian Primary School

Ahmad Hamizan Lootfi Amir*, Dr. Azlina Abdul Aziz

Faculty of Education, Universiti Kebangsaan Malaysia, 43600 Bangi Selangor Malaysia

***Corresponding Author**

DOI: https://dx.doi.org/10.47772/IJRISS.2025.910000698

Received: 06 November 2025; Accepted: 12 November 2025; Published: 21 November 2025

ABSTRACT

This qualitative study explored the challenges faced by Malaysian primary school teachers in using sign language for English instruction among Deaf and Hard-of-Hearing (DHH) students, as well as the factors contributing to these challenges. The study employed semi-structured interviews with four teachers experienced in teaching DHH learners. Data were transcribed and analyzed thematically using Braun and Clarke's (2023) six-phase framework to identify recurring patterns of meaning. Findings revealed that teachers encountered multifaceted challenges, including fragmented sign systems, communication barriers, limited vocabulary resources, and a lack of formal training in sign-supported English pedagogy. Contributing factors extended beyond classroom practice, such as the absence of standardized sign language policies, inadequate institutional support, and limited professional development opportunities. Despite these constraints, teachers demonstrated resilience through self-directed learning, peer collaboration, and the creative use of visual and multimodal teaching strategies. The study highlights the urgent need for systemic reform in Malaysia's Deaf education system. Policy-level standardization of sign systems, targeted teacher training in bilingual-bimodal instruction, and structured mentoring networks are essential to enhance instructional quality and inclusivity. By centering teachers' lived experiences, this study contributes to the growing body of research on bilingual education for DHH learners and underscores the importance of empowering educators as key agents of linguistic and educational equity.

Keywords: sign language, Deaf and Hard-of-Hearing (DHH), bilingual-bimodal instruction, inclusive education, Malaysia

INTRODUCTION

Educating Deaf and Hard-of-Hearing (DHH) students presents persistent challenges in language education, particularly in literacy development. Unlike their hearing peers, DHH learners rely primarily on visual communication, necessitating instructional approaches that integrate sign language as a core medium of learning (Terblanche & van Staden, 2021). One of the critical barriers to English literacy is the difference between auditory–oral and visual–spatial modalities, as sign languages operate on distinct grammatical and syntactic systems (Bowen & Probst, 2023). Many DHH learners experience delayed access to a fully developed first language, resulting in cognitive and academic gaps. However, early exposure to sign language can mitigate these delays by providing a strong linguistic foundation that supports subsequent acquisition of spoken and written languages such as English (Pfenninger et al., 2023). Language proficiency, particularly in English, is essential for academic growth and future employability (Yusof & Jalaluddin, 2022).

Bilingual–bimodal approaches, which use sign language alongside spoken or written languages, have demonstrated positive outcomes in enhancing comprehension, vocabulary, and metalinguistic awareness (Canon et al., 2022; Beal et al., 2024). Within this paradigm, the use of Language Learning Strategies (LLS) tailored for DHH learners has gained increasing attention. Strategies such as visualization, fingerspelling, collaborative learning, and metacognitive reflection have been found to improve engagement and retention (Oxford, 1990; Terblanche & van Staden, 2021). Despite these global advances, significant gaps remain in translating these

insights into classroom practice, especially in developing contexts such as Malaysia.

In Malaysia, the linguistic and educational landscape for DHH students is uniquely complex. Several sign systems are used in schools and communities: Bahasa Isyarat Malaysia (BIM), the natural language of the Malaysian Deaf community; Kod Tangan Bahasa Melayu (KTBM), a manually coded system representing Malay grammar; and, to a lesser extent, Signed Exact English (SEE) and American Sign Language (ASL) (Yasin et al., 2021). While this plurality offers flexibility, it also creates inconsistency in English instruction. Teachers must navigate differing grammatical alignments between sign systems, leading to challenges in maintaining accuracy and comprehension (Abdullah & Mokhtar, 2020).

Malaysia's inclusive education policies, outlined in the Malaysia Education Blueprint 2013–2025, aim to provide equitable opportunities for students with disabilities (Ministry of Education Malaysia, 2013). From 2027, Bahasa Isyarat Malaysia (BIM) will become a compulsory subject for special education students and optional for mainstream learners. However, implementation remains hindered by insufficient teacher training, limited sign-based resources, and the absence of standardized curricula for sign-supported English instruction (Chong & Hussain, 2021; Asaari & Rashid, 2024). Consequently, teachers often integrate sign language into English teaching without adequate professional guidance or institutional support.

Although inclusive education is expanding in Malaysia, teachers face multiple barriers when using sign language in English instruction. These include a lack of formal training, limited access to teaching materials, communication challenges, and time constraints in mixed-ability classrooms (Noor & Rahman, 2021). The coexistence of multiple sign systems further leads to inconsistency and confusion, affecting both teaching effectiveness and student comprehension (Hassan & Yusof, 2020). Research on teachers' lived experiences in using sign language for English instruction at the primary level remains scarce. Without understanding these challenges, efforts to strengthen teacher training and inclusive practices will remain inadequate (Rahmat et al., 2024; Tang, 2024). This study therefore aims to examine teacher perspectives on integrating sign language into English instruction in Malaysian primary schools.

Research Objectives

1. To explore the challenges faced by primary school English teachers in using sign language for DHH students.
2. To identify factors that contribute to these challenges in Malaysian primary school settings.

Research Questions

1. What challenges do teachers face when using sign language with DHH students?
2. What factors contribute to these challenges in Malaysian primary school settings?

LITERATURE REVIEW

This study integrates theories of bilingualism, language acquisition, and strategic language learning to justify the use of sign language in English instruction for Deaf and Hard-of-Hearing (DHH) students within bilingual-bimodal contexts. These frameworks explain how linguistic and cognitive transfer between sign language and English occurs and establish the theoretical basis for this research.

Cummins' Theory of Bilingualism

Cummins' Interdependence Hypothesis (1979) argues that proficiency in a first language (L1) facilitates acquisition of a second (L2). For DHH learners, sign language acts as L1, forming the foundation for conceptual and linguistic growth. Skills such as vocabulary, metalinguistic awareness, and reasoning acquired in sign language can transfer to English literacy.

The Dual Iceberg Theory visualizes two languages as separate surface features supported by a Common Underlying Proficiency (CUP) of shared cognitive skills. Although Bahasa Isyarat Malaysia (BIM) and English

differ in modality, both draw upon this shared base. Research shows that literacy and reasoning abilities developed through sign language enhance English learning despite modality differences (Simpson & Mayer, 2023; Subin & Liang-Itsara, 2022). DHH students who construct narratives in BIM can transfer these structures into English writing, illustrating the cognitive link described by Cummins.

Bimodal Bilingualism

Bimodal bilingualism involves two languages in distinct modalities—a visual-gestural language (e.g., BIM or SEE) and a spoken or written language (e.g., English). This dual channel promotes metalinguistic awareness, cognitive flexibility, and literacy (Beal et al., 2024). Family use of bimodal communication strengthens language development (Greene et al., 2024). Despite proven benefits, Malaysian bilingual-bimodal instruction is constrained by the absence of standardized curricula (Dashwini & Anal, 2022). Students who use both sign and written languages show stronger literacy and adaptability (Donati, 2021; Lillo-Martin, Gagne, & Chen Pichler, 2022). Teachers who integrate both modalities enhance comprehension and inclusion (Marshall et al., 2021), whereas suppressing sign language restricts meaning and engagement. Embracing both modes is therefore essential for effective English instruction in DHH education.

Challenges in Deaf and Hard-of-Hearing Education

The integration of sign language into English instruction has attracted considerable scholarly attention in bilingual and special-education research. Studies highlight benefits of bimodal-bilingual and visual approaches but reveal limited understanding of how primary-school teachers manage real-world implementation (Yufrizal, 2023). Effective instruction depends on how teachers employ visual and bilingual modalities to overcome linguistic and cognitive barriers (Donati, 2021).

Challenges Faced by DHH Students

DHH students often experience delayed exposure to a fully accessible language, hindering mastery of English grammar and syntax (Nugroho & Lintangsari, 2022). Early language acquisition—whether signed or spoken—is vital for cognitive growth (Terblanche & van Staden, 2021). Language deprivation contributes to lower academic performance and reading difficulties. Teachers report limited resources and inadequate assessment tools for hearing-impaired learners (Ishrat, Iqbal, & Khan, 2022). Proficiency in bilingual pedagogy is crucial for bridging communication gaps (Karuppannan et al., 2021). Structural differences between sign languages and English further impede literacy, particularly where sign language use is inconsistent (Bowen & Probst, 2023).

Challenges from the Teacher's Perspective

Teachers face practical and pedagogical obstacles when using sign language in English instruction. Many lack formal training, teaching materials, and supervisory support (Karuppannan et al., 2021). Consequently, confidence in applying bimodal strategies remains low (Ishrat et al., 2022). Disparities in signing proficiency between teachers and students often cause misunderstandings, especially when teachers are novice signers (Bowen & Probst, 2023). Diversity among DHH learners—varying degrees of hearing loss and additional learning needs—complicates differentiation (Yasin et al., 2021). In Malaysia, many educators lack certification in BIM or KTBM, reducing teaching effectiveness (Asaari & Rashid, 2024). Language mismatches arise when teachers rely primarily on spoken Malay or English (Chong & Hussain, 2021).

Challenges Related to Multiple Sign Systems in Malaysia

Malaysia employs four main sign systems—BIM, KTBM, SEE, and ASL—creating linguistic and pedagogical inconsistency (Salsabiilah, 2024). KTBM and SEE mirror spoken grammar and support curriculum goals but impose higher cognitive demands (Saiful Bahri et al., 2023). In contrast, natural sign languages like BIM and ASL have unique syntactic structures and cultural depth but differ from English and Malay (Yasin et al., 2021). Teachers frequently alternate between systems—using SEE or KTBM for instruction and BIM for communication—which may confuse students and complicate assessment (Saiful Bahri et al., 2023). Standardized resources remain limited (Pfenninger et al., 2023). Without clear pedagogical guidance, this

coexistence of sign systems continues to challenge consistent language development in Malaysian deaf education.

Challenges in Bilingual-Bimodal Education

Multiple sign systems further complicate bilingual-bimodal implementation. Yasin et al. (2021) classify the four Malaysian systems, each varying in syntax and use. Coded systems such as SEE align with English grammar but increase cognitive load (Caldwell, 2022). Natural sign languages like BIM offer intuitive, culturally authentic communication that supports language transfer (Singleton & Meier, 2021). Structural differences between sign and written languages create cognitive strain for students learning English (Ballard, 2022). Grounded in Cummins' (1979) Interdependence Hypothesis, bilingual-bimodal instruction posits that a strong L1 foundation aids L2 acquisition. Empirical evidence confirms that learners exposed to both sign and written/spoken English achieve superior literacy and cognitive outcomes (Beal et al., 2024; Melotti, 2024). An integrated model that values both modalities is therefore essential for inclusive English instruction.

Summary and Research Gap

The reviewed literature reveals persistent linguistic, pedagogical, and systemic barriers to teaching English through sign language. Despite theoretical and empirical support for bilingual-bimodal education, implementation in Malaysia remains inconsistent due to limited teacher training, scarce resources, and conflicting sign systems. Most existing studies emphasize student outcomes; few explore teachers' lived experiences in integrating sign language within English instruction. Addressing these gaps, the present study examines **(1)** the challenges Malaysian primary-school English teachers encounter when using sign language and **(2)** the contextual factors contributing to those challenges. By focusing on teacher perspectives, this research seeks to inform policy and pedagogical reforms for more inclusive, linguistically responsive education.

METHODOLOGY

This study investigates Malaysian primary school teachers' perspectives on integrating sign language into English instruction for Deaf and Hard-of-Hearing (DHH) students. A qualitative research design was employed to capture teachers' lived experiences, instructional practices, and perceived challenges in implementing bilingual-bimodal approaches. Qualitative inquiry was deemed appropriate as it enables a deep exploration of participants' meanings and interpretations within their real-world teaching contexts (Creswell & Creswell, 2018). The chapter describes the research design, participants and sampling, ethical considerations, data collection and analysis procedures, and the strategies used to ensure the trustworthiness of the findings.

Research Design

This study adopted a qualitative research design using semi-structured interviews as the primary data collection method. This approach allows participants to express their experiences and reflections in detail while providing the researcher with flexibility to probe emerging ideas. It aligns with the study's interpretivist paradigm, which assumes that knowledge is socially constructed and context-dependent.

Through this design, the research sought to understand how teachers interpret their professional roles and challenges in using sign language for English instruction among DHH students. The focus on subjective meaning and contextual understanding makes qualitative inquiry particularly suitable for investigating complex, human-centred educational issues that cannot be quantified or generalized statistically.

Participants and Sampling

Setting

The study was conducted in three primary schools located in Kuala Lumpur, Malaysia, all of which implement inclusive education or specialized programs for DHH learners. Kuala Lumpur was selected for its linguistic diversity and concentration of teachers with experience in sign-supported English instruction. These schools reflect Malaysia's broader educational context, where bilingual and inclusive practices coexist.

Sampling Strategy

A purposive sampling strategy was used to recruit teachers who met specific criteria relevant to the study's aims. Four teachers participated in the interviews. Each had a minimum of six years of teaching experience with DHH students and proficiency in at least one sign language system, such as Bahasa Isyarat Malaysia (BIM), Kod Tangan Bahasa Melayu (KTBM), Signed Exact English (SEE), or American Sign Language (ASL). Purposive sampling was appropriate because it ensured the inclusion of participants capable of providing rich, informed perspectives on sign-supported English instruction. The small but focused sample size is consistent with qualitative research that prioritizes depth and contextual richness over breadth (Creswell & Poth, 2018).

Ethical Consideration

Ethical clearance was obtained through the Educational Research Application System (ERAS) from the Faculty of Education, Universiti Kebangsaan Malaysia. All participants received an information sheet detailing the study's objectives, procedures, confidentiality measures, and their rights as participants. Written and oral informed consent was obtained prior to participation. Anonymity was protected by assigning pseudonyms to all participants, and personal identifiers were removed from transcripts. Data were stored in encrypted digital files accessible only to the researcher. Participants were informed that their participation was voluntary and that they could withdraw at any stage without penalty. Sign language interpreters were available when needed to facilitate communication and ensure accessibility for all participants.

Data Collection

Data were collected through semi-structured interviews, which provided flexibility and allowed teachers to share their experiences in depth. The interview protocol was designed to explore four key areas: teachers' experiences in teaching English to Deaf and Hard-of-Hearing (DHH) students, the strategies used to integrate sign language into English instruction, the challenges encountered in sign-supported teaching, and the teachers' perceived needs for professional development and institutional support.

To ensure clarity, cultural appropriateness, and alignment with the research objectives, the interview guide was reviewed by a TESL research supervisor and a certified sign language interpreter. A pilot interview was conducted with two teachers, resulting in minor refinements to the phrasing and sequencing of questions. Depending on participants' availability, the interviews were carried out either face-to-face or via video conferencing. Each session lasted approximately 15 to 20 minutes and was conducted in English or Bahasa Melayu, according to the participants' preference. With permission, all interviews were audio-recorded and subsequently transcribed verbatim. In addition, the researcher took observational notes on tone, emphasis, and non-verbal cues to support the interpretation of the data.

Data Analysis

Data were analyzed using thematic analysis, following Braun and Clarke's (2023) six-phase framework. The process began with repeated readings of the interview transcripts to achieve familiarization with the data, followed by the generation of initial codes that captured key statements relevant to the research questions. Similar codes were then grouped to form potential themes, which were subsequently reviewed to ensure they accurately represented the coded data. Each theme was further refined and defined to reflect its conceptual meaning. Finally, the thematic findings were synthesized with relevant literature. NVivo software was employed to organize and manage the coding systematically. The analytical process was iterative and reflexive, allowing for constant comparison between the data and emerging interpretations. The final themes captured shared patterns of meaning across participants' experiences, highlighting their challenges, in the institutional contexts.

FINDINGS AND DISCUSSION

This section presents and discusses the findings based on the two research questions that guided the study:

1. What challenges do teachers face when using sign language with DHH students?
2. What factors contribute to these challenges in Malaysian primary school settings?

Thematic analysis of the four interviews revealed a complex picture of teachers' realities, shaped by limited training, linguistic fragmentation of sign languages multiple systems, and systemic constraint. Two overarching themes emerged: (a) the *pedagogical and communicative challenges* teaching through sign language, and (b) the *institutional and structural factors* that contribute to these challenges.

Challenges Teachers Face When Using Sign Language with DHH Students

Lack of Standardization and Multiple Sign Systems.

A dominant challenge expressed by all participants was the coexistence of multiple overlapping sign systems – *Kod Tangan Bahasa Melayu* (KTBM), *Signing Exact English* (SEE), *Bahasa Isyarat Malaysia* (BIM), and *American Sign Language* (ASL). Teachers described their classrooms as linguistically fragmented spaces where neither consistency nor standardization existed.

> *"In deaf schools, for Bahasa Melayu, we use KTBM. But for English, we use SEE. Some words are similar, but many are different. It's like learning two languages at once". (Teacher A, personal interview, 2025)*

These findings illustrate Cummins' Interdependence Hypothesis in practice, where inconsistent exposure to sign language limits cognitive and linguistic transfer to English. Similarly, teachers' reliance on visual scaffolding demonstrates the principles of bimodal bilingualism, where meaning is constructed through both visual and textual modalities. The teacher elaborated that when SEE lacked certain vocabulary, teachers resorted to ASL for substitutes.

> *"Sometimes SEE doesn't have enough vocabulary, so we refer to ASL to fill in the gaps. We just pick from different sources and figure things out ourselves. "Even after nine years, I still don't know what other deaf schools are using. It's like every school has its own way". (Teacher A, personal interview, 2025)*

Teachers' observations that students mix Malay, sign, and English align with bilingual transfer processes, suggesting that cognitive load increases when learners must navigate overlapping linguistic systems without a stable primary language base. This inconsistent blending of systems – often called "rojak signing" – confused both teachers and students.

As one teacher reflected. These accounts highlight a lack of national coherence in sign language policy, echoing findings from past research showing that inconsistent sign systems hinder linguistic and cognitive development among DHH learners (Beal et al., 2024). Teachers' improvisations show commitment but also underscore systemic neglect in professional preparation for bilingual – bimodal education. These findings support Cummins' (1979) Interdependence Hypothesis, illustrating that inconsistent exposure to sign language (L1) disrupts the shared cognitive foundation needed for effective transfer of literacy skills to English (L2).

Communication Barriers and Cognitive Overload

Teachers also struggled to bridge communication gaps with students, especially those who were profoundly deaf.

> *"For students who still have some hearing, it's easier. But for total deaf students, it's really hard. I can't tell whether they understand or not the lesson that had been taught". (Teacher C, personal interview, 2025)*

Because students often learned multiple sign systems alongside Malay and English, teachers observed signs of cognitive overload;

> *"Even one language is difficult. I don't know how students able to manage three - Malay, sign, and English. Sometimes I feel they mix everything together when forming sentences". (Teacher C, personal interview, 2025)*

This reflects Cummins' Dual Iceberg Model, where the surface features of different languages may vary, yet both draw on a common underlying proficiency. Teachers' experiences of navigating multiple sign and spoken systems demonstrate how cognitive interdependence operates across modalities. This aligns with Ballard (2022) who noted that DHH learners face heavy linguistic demands when navigating bilingual and bimodal input simultaneously. Teachers' comments reveal both empathy and frustration as they attempt to simplify complex English grammar within visual modality. Teachers also pointed out that many English words – especially abstract or non – visual concepts cannot easily be represented in sign language alone.

> *"Words like imagination, freedom, or believe – how do we show that" It's not visible, and that makes it hard for the students to understand using sign languages alone". (Teacher C, personal interview, 2025)*

The lack of direct equivalents in SEE or KTBM made comprehension and vocabulary retention difficult. Students often memorized signs mechanically without grasping its meaning. These findings mirror those of Lillo-Martin et al. (2022) who argued that DHH learners benefit most when teachers use multimodal, context-rich strategies rather than literal translations.

Resource Limitations

All participants described the shortage of teaching materials as a persistent issue. Teachers lacked access to up-to-date SEE dictionaries, visual teaching aids, or sign-integrated textbooks.

> *"Even the dictionaries – we don't really get proper ones. We rely on old versions or online dictionaries that we have to pay for." "We never see any English books, materials and worksheet with sign language integrated in it. Everything we use, we have to modify it ourselves". (Teacher A, personal interview, 2025)*

Such statements reflect an ongoing resource gap in Malaysian Deaf education, consistent Pawlak (2021) observation that sign-supported materials are rarely prioritized in mainstream curricular planning. Despite these limitations, teachers showed adaptability, they frequently used smartboards, phones, and digital visuals to supplement meaning.

> *"When they don't know what a dog is, I just show them a picture together with sign language of it on the smartboard. Everyone sees it at once and understands". (Teacher A, personal interview, 2025)*

Visual scaffolding thus became the backbone of English instruction, compensating for linguistic and auditory limitations. The teachers' use of smartboards, pictures, and sign language simultaneously exemplifies the principles of bimodal bilingualism, where meaning is co-constructed through both visual-gestural and written modalities to enhance comprehension and engagement.

Pedagogical Constraints

Teachers described difficulty in conducting group discussions and communicative tasks, central to the English curriculum, this is due to the varying language levels, activities often had to be heavily guided or individualized.

> *"We can try group discussions, but they are not real discussions due to being heavily guided by the teacher to set the tone. Usually, we give sentence frames, and they would just fill in the blanks. For these kids, one – to – one teaching works better. Otherwise, the objectives for the day are not achieved.". (Teacher C, personal interview, 2025)*

This reveals the tension between communicative language teaching (CLT) ideals and the realities of DHH instruction. Teachers must constantly adapt methods meant for auditory learners to visual modalities – a process that demands creativity but often lacks structural support (Saiful Bahri et al. 2023).

Factors Contributing to These Challenges in Malaysian Primary School Settings

Lack of Professional Training and Continuous Development

The second research question uncovered structural factors behind the classroom challenges—mainly, inadequate teacher preparation and institutional support. Teachers reported attending numerous English language courses, but none specifically designed for DHH education.

> *"We have lots of training for English teachers, but not for teaching deaf kids English language. We are always called for general courses. We have to think ourselves how to adapt them". (Teacher B, personal interview, 2025)*

The teacher noted that,

> *"Even after nine years, I still don't know if my method is correct. If senior teachers shared earlier, I would wouldn't need ten years to figure out how to figure out and teach DHH learners English". (Teacher B, personal interview, 2025)*

These reflections reveal a culture of professional isolation rather than collaboration. Teachers expressed strong desire for formal mentoring, structured sharing sessions, and standardized assessments of signing proficiency. One teacher suggested,

> *"We should have a standardized test for teachers' sign language, maybe once a year, to motivate us to study and improve our signing proficiency for English Language just like English MUET test". (Teacher B, personal interview, 2025)*

This gap in professional development aligns with Simpson & Mayer (2023) argued that teacher learning must be situated in reflective and communal practice. Without specialized training and clear career pathway, teachers rely on self – learning and informal peer networks.

Institutional and Administrative Gaps

Teachers also criticized the limited involvement of higher education's authorities and state departments in supporting DHH English programs.

> *"The people at the top don't really know what happens here. But they have the authority to organize mentoring or sharing sessions. There are excellent English teachers out there—they just need to connect us". (Teacher B, personal interview, 2025)*

Teachers often felt that policy – level awareness of DHH education remained low, and decisions were often top – down without consultation. This disconnect resonates with Pawlak (2021) finding that inclusive education requires vertical collaboration between classroom practitioners and policymakers. The absence of standardized frameworks also affects teacher deployment. Several participants noted being posted to deaf or special education schools without preparation.

> *"We didn't choose to be here. We were just posted. But after that, there was no specific orientation or support for sign language". (Teacher B, personal interview, 2025)*

This lack of continuous support leads to uncertainty and inconsistent practice, particularly for new teachers. Participants proposed that new teachers assigned to special education school especially for deaf schools undergo structured orientation and mentoring programs, similar to Program Guru Baharu.

Cultural and Linguistic Perceptions of Deaf Education

One teacher who identified as a Deaf educator provided a unique perspective on systemic bias and linguistic identity.

> *"People think teaching deaf children is easy, but it's not. Their IQ levels are different, and they take longer to understand lessons. Even I, as a Deaf teacher, see how important sign language is as our natural language." (Teacher D, personal interview, 2025)*

He stated that sign language must be recognized as a legitimate first language for deaf individuals, not merely a compensatory tool. His reflection aligns with global advocacy for recognizing sign languages as full linguistic systems (Lillo-Martin, et .al, 2022). Teachers observed that DHH learners are often perceived as "less capable," which undermines expectations and resource allocation.

> *"Our students are the minority, but they deserve quality education like everyone else." (Teacher D, personal interview, 2025)*

This statement underscores a moral dimension in teachers' work—what Rastgoo et .al (2021) calls moral agency, where educators persist in advocating for equity despite systemic neglect.

CONCLUSION AND IMPLICATIONS

This study explored the challenges faced by Malaysian primary-school teachers in using sign language for English instruction with Deaf and Hard-of-Hearing learners, as well as the contextual factors shaping these challenges. Grounded in Cummins' Interdependence Hypothesis and bimodal bilingual theory, the study affirms that consistent L1 sign language exposure and multimodal integration are crucial for supporting English literacy among Deaf and Hard-of-Hearing learners. The findings revealed that teachers navigated complex classroom realities marked by multiple sign systems, insufficient training, limited materials, and lack of institutional collaboration that collectively hinder effective English instruction for DHH learners. The coexistence of different sign languages created inconsistency in grammar and vocabulary, while the visual nature of sign language made it difficult to convey abstract concepts. Overall, the study highlights the need for coherent policy direction, specialized training programs, and stronger institutional collaboration to support bilingual-bimodal education. Teachers' experiences reflect both their professional commitment and the urgent need for systemic reform to ensure that DHH learners receive equitable and effective English education.

Recognizing BIM as the primary language for DHH learners, with clear guidelines for its integration with English, is vital. Continuous professional development, mentoring networks, and partnerships with universities can strengthen teacher capacity and reduce professional isolation. Investment in sign-integrated and digital learning materials is also essential. Future research should explore rural and inclusive settings, incorporate classroom observations, and include students' perspectives.

REFERENCES

1. Abdullah, N., & Mokhtar, R. (2020). *Sign language practices in inclusive classrooms in Malaysia. Malaysian Journal of Special Education, 10*(2), 22–35.
2. Asaari, A., & Kamaluddin, S. M. M. R. (2024) Use of Malaysian Sign Language for Special Education Teachers in Teaching Deaf Students.
3. Ballard, T. (2022). *Cognitive strain and cross-modal literacy development in deaf learners. Journal of Deaf Studies and Deaf Education, 27*(3), 210–225.
4. Beal, J. S., Dostal, H. M., & Easterbrooks, S. R. (2024). *Literacy instruction for students who are deaf and hard of hearing.* Oxford University Press.
5. Bowen, S. K., & Probst, K. M. (2023). *Instructional strategies for students who are deaf or hard of hearing: A review of evidence-based practices. Journal of Deaf Studies and Deaf Education, 28*(1), 15–33.
6. Braun, V., & Clarke, V. (2023). *Thematic analysis: A practical guide* (2nd ed.). SAGE Publications.
7. Caldwell, S. (2022). *Manually coded sign systems and cognitive load in deaf education. Language Learning and Development, 18*(4), 355–372.
8. Canon, L., Marshall, C., & Chen Pichler, D. (2022). *Sign bilingual education: Current perspectives and future directions. Applied Linguistics Review, 13*(5), 789–812.

9. Cheong, J., & Lim, H. (2022). *Teacher attitudes toward inclusive education for students with hearing loss in Malaysia. Asia Pacific Journal of Education, 42*(4), 566–580.
10. Chong, W. H., & Hussain, N. (2021). *Inclusive education in Malaysia: Teachers' preparedness and challenges in teaching students with disabilities. Asian Journal of Inclusive Education, 9*(1), 33–49.
11. Creswell, J. W., & Creswell, J. D. (2018). *Research design: Qualitative, quantitative, and mixed methods approaches* (5th ed.). SAGE Publications.
12. Creswell, J. W., & Poth, C. N. (2018). *Qualitative inquiry and research design: Choosing among five approaches* (4th ed.). SAGE Publications.
13. Cummins, J. (1979). *Linguistic interdependence and the educational development of bilingual children. Review of Educational Research, 49*(2), 222–251.
14. Dashwini, S., & Anal, S. (2022). *Barriers to standardized bimodal bilingual instruction in Malaysia. Journal of Deaf Studies and Education, 27*(3), 215–228.
15. Donati, C. (2021). *Metalinguistic awareness and bimodal bilingualism: Cognitive advantages in deaf education. Language Learning and Development, 17*(4), 341–357.
16. Greene, L., Chan, J., & Lau, E. (2024). *Family engagement in bimodal bilingual communication and early deaf education. International Journal of Inclusive Education, 28*(2), 189–205.
17. Hassan, S., & Yusof, M. (2020). *Language barriers in teaching deaf students: Perspectives from Malaysian teachers. International Journal of Inclusive Education, 24*(7), 811–825.
18. Ishrat, S., Iqbal, F., & Khan, M. (2022). *Teacher challenges in inclusive education for students with hearing impairments. Journal of Special Education Research, 12*(3), 145–162.
19. Karuppannan, G., Mani, S., & Rahman, H. (2021). *Teacher preparedness and bilingual pedagogy in inclusive classrooms for DHH learners. Malaysian Journal of Education Studies, 48*(1), 77–94.
20. Lincoln, Y. S., & Guba, E. G. (1985). *Naturalistic inquiry.* SAGE Publications.
21. Lillo-Martin, D., Gagne, D., & Chen Pichler, D. (2022). *Lessons to be learned from bimodal bilingualism. Hrvatska revija za rehabilitacijska istraživanja, 58*(Special Issue), 83–97.
22. Marshall, C., Melotti, L., & Singleton, J. (2021). *Integrating sign language and English instruction: Cognitive cooperation in bilingual-bimodal learning. Deafness & Education International, 23*(1), 15–29.
23. Melotti, L. (2024). *Cognitive and linguistic outcomes in bimodal bilingual instruction. International Review of Applied Linguistics in Language Teaching, 62*(2), 201–220.
24. Ministry of Education Malaysia. (2013). *Malaysia Education Blueprint 2013–2025.* Putrajaya: Ministry of Education Malaysia.
25. Ministry of Education Malaysia. (2023). *Inclusive education policy report.* Putrajaya: Special Education Division.
26. Mohd Ali, S. (2024). *Inclusive education practices in Kuala Lumpur primary schools: An overview. Malaysian Journal of Special Education, 14*(2), 44–58.
27. Noor, A., & Rahman, M. (2021). *Teacher readiness and challenges in teaching English to students with hearing impairments. Journal of Special Needs Education, 17*(1), 55–70.
28. Nugroho, A., & Lintangsari, A. P. (2022). *Challenges of English literacy development among deaf students in inclusive schools. Asian Journal of Education and Learning, 12*(3), 178–190.
29. Oxford, R. (1990). *Language learning strategies: What every teacher should know.* Newbury House.
30. Pawlak, M. (2021). *Investigating language learning strategies: Prospects, pitfalls and challenges. Language Teaching Research, 25*(5), 817–835.
31. Pfenninger, S., Lee, C., & Wong, T. (2023). *Standardized sign language materials and curriculum alignment in Malaysian special education. Journal of Applied Linguistics and Language Research, 10*(1), 112–128.
32. Rahmat, N., Saiful, B., & Noraini, A. (2024). *The role of multimodal strategies in teaching English to special needs learners. Malaysian Journal of ELT Research, 20*(1), 55–72.
33. Rastgoo, R., Kiani, K., Escalera, S., & Sabokrou, M. (2021). Sign language production: A review. In *Proceedings of the IEEE/CVF conference on computer vision and pattern recognition* (pp. 3451-3461).
34. Saiful Bahri, M., Noor, H., & Rahman, N. (2023). *Comparative analysis of KTBM, SEE, and BIM in English literacy instruction. Malaysian Journal of Special Needs Education, 13*(2), 66–82.
35. Salsabiilah, N. (2024). *Linguistic challenges of multiple sign systems in Malaysian deaf education. Asia Pacific Journal of Special Education, 19*(1), 43–57.

36. Simpson, M. L., & Mayer, C. (2023). Spoken language bilingualism in the education of deaf learners. *American Annals of the Deaf, 167*(5), 727-744.
37. Singleton, J. L., & Meier, R. P. (2021). *Natural sign languages and bilingual development among deaf learners. Sign Language Studies, 21*(2), 109–128.
38. Subin, W., & Liang-Itsara, P. (2022). *Sign language and English literacy transfer among deaf learners in Southeast Asia. Asian Journal of Special Education, 7*(2), 71–84.
39. Tang, M. (2024). *Language learning strategies and sign-supported instruction: Gaps in Southeast Asian contexts. TESOL Quarterly, 58*(2), 211–229.
40. Terblanche, W., & van Staden, A. (2021). Hearing-loss and early literacy development: Exploring the role of linguistic skills and support programs that can benefit dhh children. In EDULEARN21 Proceedings (pp. 12369-12379). IATED.
41. World Health Organization. (2021). *Deafness and hearing loss.* https://www.who.int/news-room/fact-sheets/detail/deafness-and-hearing-loss
42. Yasin, M., Abdullah, H., & Ibrahim, S. (2021). *Sign language systems in Malaysia: Policy, practice, and implications for inclusive education. Malaysian Journal of Special Education, 15*(2), 1–14.
43. Yufrizal, H. (2023). *Bilingual-bimodal approaches and English proficiency among deaf students: A Southeast Asian perspective. Asian EFL Journal, 25*(5), 59–75.
44. Yusof, H., & Jalaluddin, N. (2022). *English language development among deaf students in Malaysia: A review. Malaysian Journal of Learning and Instruction, 19*(1), 143–162.