



TEACHING STRATEGIES FOR DEVELOPING WRITING SKILLS IN DEAF AND HARD OF HEARING (DHH) STUDENTS: A CASE STUDY OF SPECIAL NEEDS TEACHERS

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ABSTRACT

This study investigates the writing learning strategies employed by teachers for deaf and hard of hearing (DHH) students in Indonesian special needs schools (SLB), focusing on a case study at SLB Sana Dharma in Jakarta. Using a qualitative case study design, data were collected through semi-structured interviews and direct classroom observations involving three teachers who teach DHH students in grades 1, 2, and 4. The findings reveal that DHH students encounter significant challenges in developing writing skills, particularly due to limited linguistic access and insufficient exposure to morphosyntactic features such as affixation and reduplication. Many students are found to be in the early stages of writing development, often producing isolated words or simple sentences, while compound and complex sentence structures remain difficult to master. The study highlights the effectiveness of translanguaging strategies and visual media in supporting language comprehension and written expression. Moreover, active parental involvement and teacher fluency in sign language play critical roles in fostering a supportive learning environment. The study's implications suggest the need for a more flexible and differentiated curriculum that addresses the unique needs of DHH learners. This case study contributes meaningful insights into improving instructional practices and promoting the writing development of DHH students in inclusive and special education contexts.

Keywords: writing learning strategies, DHH students, teacher perspective

INTRODUCTION

Writing skills are a crucial aspect of education, particularly for deaf and hard of hearing (DHH) students, as these skills significantly influence their academic literacy and communication abilities. DHH students face unique challenges in acquiring oral and written language due to a combination of linguistic, educational, and social factors. Pragmatic development, which involves understanding and using language in context, is often delayed in DHH children, impacting their social-cognitive development and overall well-being. This delay is attributed to insufficient early intervention and a lack of awareness among caregivers and professionals about the importance of pragmatics in language development (Szarkowski et al., 2020). In terms of written language, DHH individuals often produce shorter and less informative texts with more semantic, morphological, and syntactic errors compared to their hearing peers, linked to a general linguistic weakness and reliance on early-acquired words with higher lexical neighborhood density (Vizzi et al., 2023).

Translanguaging, which involves using multiple languages and modalities, has been suggested as a beneficial approach in educational settings for DHH students,

allowing them to leverage their full linguistic repertoire to understand and express content (Scott & Cohen, 2023). However, the effectiveness of translanguaging is contingent on the proficiency of educators in signed languages, which is often lacking due to systemic issues such as racialized perceptions of language fluency (Henner & Robinson, 2023). Socially, deaf individuals often experience exclusion in hearing environments, such as during family meals, where auditory cues dominate turn-taking, leading to a phenomenon known as “dinner table syndrome” (Meek, 2020). This exclusion can hinder incidental learning and contribute to a sense of disconnection from family conversations. Additionally, while cochlear implants can enhance linguistic skills, they do not fully bridge the gap in communicative-pragmatic abilities, especially if implantation occurs later in childhood.

The development of writing and pre-writing skills is a multifaceted process that begins in early childhood and continues through adolescence, involving a complex interplay of cognitive, linguistic, and motor skills. Early evaluation of writing readiness, such as through the *Writing Readiness Inventory Tool In Context* (WRITIC), is crucial for identifying children at risk of handwriting difficulties, which can impact their academic performance (Haberfehlner et al., 2023). The foundational stages of writing development are closely linked to early language skills, as evidenced by studies showing that preschool language abilities are modestly associated with later writing skills, with genetic factors playing a significant role in this continuity (Aubé et al., 2022). Additionally, invented spelling in kindergarten has been shown to predict reading and spelling performance in the first grade, highlighting the importance of phonological awareness and alphabet knowledge in early literacy development (Albuquerque & Martins, 2022).

In educational settings, writing is not only a communicative task but also a cognitive tool that supports learning and critical thinking, as seen in medical trainees who use writing to synthesize information and develop patient care plans (Bowker et al., 2022). Pre-writing activities, such as student-led discussions, can enhance writing performance by fostering a deeper understanding of content and improving vocabulary and organization skills (Heidari Darani et al., 2023). Furthermore, the curriculum and learning objectives for DHH students in inclusive primary school settings should be tailored to accommodate their unique language learning needs and abilities. The integration of plurilingual approaches allows students to leverage their existing linguistic resources to enhance learning in the language of schooling (Smythe, 2023).

Outstanding primary schools employ a variety of strategies to enhance written language learning, incorporating cues, visual media, written conversations, and intensive repetition. The use of multimodal methods, such as visual media, is highlighted as a beneficial approach to support literacy development (Forsling & Tjernberg, 2023). Pedagogical translanguaging, which involves the strategic use of multiple languages, has been shown to increase metalinguistic awareness and facilitate language comparison, thereby enhancing written production and understanding (Leonet & Saragueta, 2024). Additionally, the integration of task-modality, which includes both oral and written components, encourages more elaborate language-related episodes, focusing on meaning and form, which are crucial for developing writing skills (Gallardo-del-Puerto & Martínez-Adrián, 2022).

Parents play a crucial role in the language learning of DHH students, as evidenced by various studies that highlight the importance of parental involvement, communication strategies, and language input. *Family-centered early intervention* (FCEI) programs



emphasize the involvement of both mothers and fathers, with findings indicating that mothers often report higher self-efficacy and involvement levels than fathers (Dirks & Szarkowski, 2022). Pragmatic development, which is essential for social-cognitive growth, is often delayed in DHH children, and parents, along with medical and allied health professionals, are urged to monitor and support this aspect from infancy (Szarkowski et al., 2020).

This study aims to identify the writing learning strategies employed by teachers in Phases A and B of the educational curriculum for DHH students in Indonesian special needs schools (SLB/SDLB). Additionally, it seeks to describe the challenges and solutions encountered in teaching written language to these students. The findings of this research will provide both theoretical and practical contributions to the development of language learning in special needs education. To clarify key concepts, “Deaf and Hard of Hearing (DHH)” refers to individuals with varying degrees of hearing loss that impact their ability to communicate effectively through spoken language. The “Bimodal Bilingual Approach” is an educational strategy that incorporates both spoken and sign languages to enhance communication and learning outcomes for DHH students. Lastly, “Phases A and B” denote distinct stages in the educational curriculum for DHH students, characterized by different teaching methodologies and learning outcomes. With this background, this study aims to explore effective learning strategies for enhancing writing skills among DHH students, as well as to gain insights from teachers in special needs schools. This research is expected to provide valuable insights for developing better teaching practices and supporting the academic success of DHH students.

METHOD

This study employs a qualitative case study design to explore the writing learning strategies utilized by teachers in special needs schools (SLB) for deaf and hard of hearing (DHH) students. A qualitative case study is particularly well-suited for this investigation as it allows for an in-depth, contextualized understanding of the experiences, instructional practices, and pedagogical strategies employed by educators in teaching writing to DHH students within their actual educational settings. The case study focuses on SLB Sana Dharma in Jakarta, where data were collected through interviews conducted in June 2025. This bounded context enables the researcher to gain rich insights into the complexities and nuances of teaching writing to DHH students in a specific institutional setting (Creswell & Poth, 2016; Yin, 2017).

The participants in this study include three teachers from special needs schools (SLB) who instruct DHH students in grades 1, 2, and 4. The selection of participants was based on their experience and expertise in teaching DHH students, ensuring that the insights gathered are relevant and informed by practical experience. Purposive sampling was employed to identify individuals who could provide rich, relevant data (Palinkas et al., 2015).

Data were collected through semi-structured interviews and direct observations. Semi-structured interviews were conducted with each teacher to gather insights into their teaching strategies, challenges faced, and solutions implemented in teaching writing to DHH students. The interviews were guided by a set of open-ended questions that allowed for flexibility in responses, enabling participants to elaborate on their experiences and perspectives (Creswell & Poth, 2016). Additionally, direct observations of classroom practices were conducted to complement the interview data, focusing on teaching

methods, student engagement, and the use of instructional materials. This triangulation of data sources enhances the validity and reliability of the findings (Denzin, 2017).

The qualitative data collected from interviews and observations were analyzed using ATLAS.ti, a qualitative data analysis software that facilitates coding and thematic analysis. The analysis process involved several steps, including transcription of interviews to ensure accuracy in data representation, initial coding to identify key themes and patterns, and thematic analysis to organize the coded data into themes that reflect the strategies, challenges, and solutions identified by the teachers in teaching writing to DHH students (Saldaña, 2021).

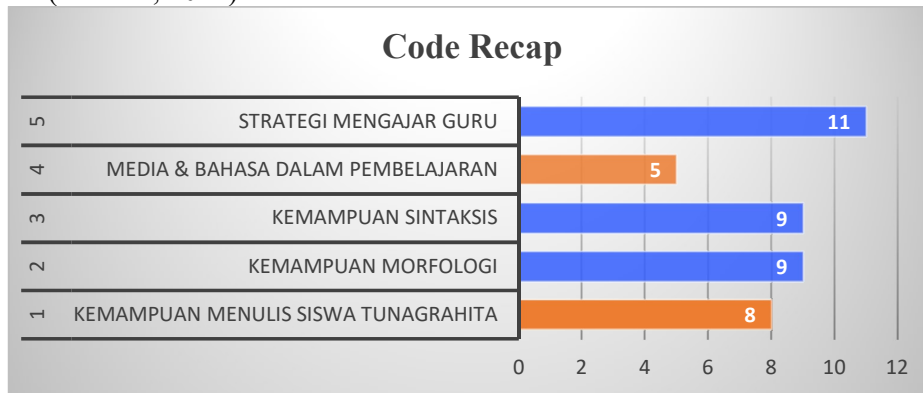


Figure 1 Code Recap

Ethical approval for the study was obtained from the relevant institutional review board, and informed consent was secured from all participants prior to data collection. This ensured that participants were aware of the study's purpose, procedures, and their right to withdraw at any time without consequence. Confidentiality and anonymity of participants were maintained throughout the research process. While this study provides valuable insights into the teaching strategies for DHH students, it is important to acknowledge its limitations. The small sample size may limit the generalizability of the findings, and the study is context-specific to Indonesian special needs schools, which may not fully represent the experiences of DHH students and teachers in other cultural or educational settings.

RESULTS AND DISCUSSION

1. Results

Based on qualitative data analysis using ATLAS.ti, this study produces important findings related to morphosyntactic patterns in the writing skills of deaf and hard of hearing (DHH) students in special needs schools (SLB). Interviews with three teachers who teach in grades 1, 2, and 4, along with direct observation of students' writing abilities, resulted in several main conclusions. The majority of DHH students are still in the early stages of writing development, mainly producing isolated words or simple sentences. A small number of students have begun to construct complete sentences; however, compound or complex sentence structures remain a significant challenge. These findings are in line with the stages of writing development, which include pre-writing, early writing, and developing writing, which indicate that students are generally in the early stages (early writing) (Aubé et al., 2022; Haberfehlner et al., 2023).

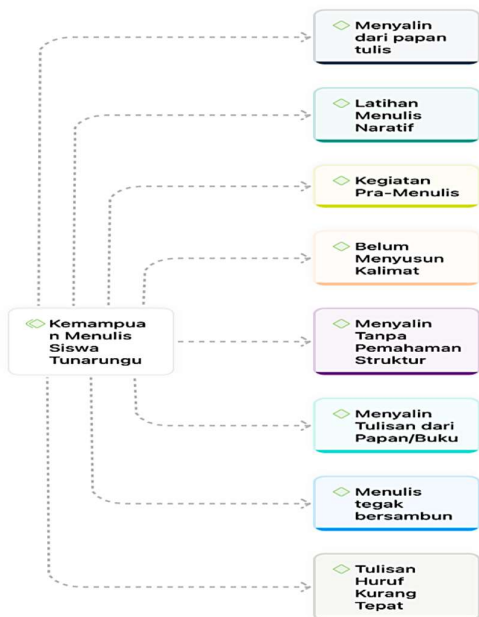


Figure 2 Coding Findings of Students' Writing Ability

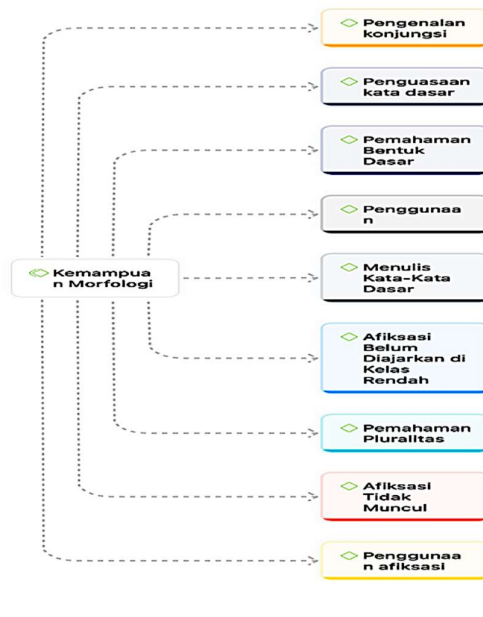


Figure 3 Coding Findings Morphological Ability

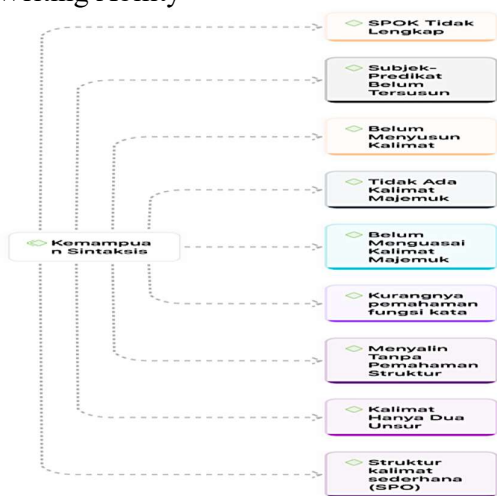


Figure 4 Coding Findings Syntactic Ability

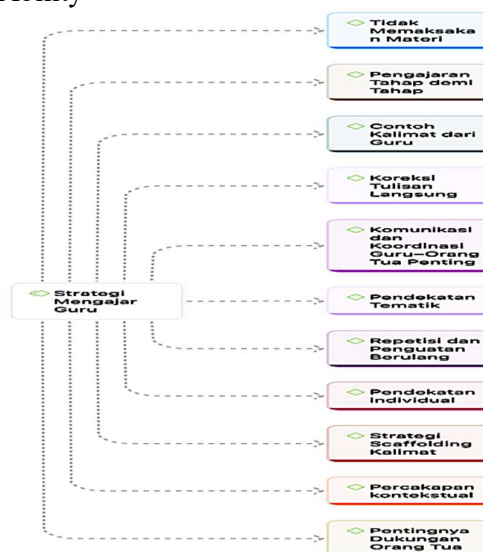


Figure 5 Coding Findings of Teacher Teaching Strategies

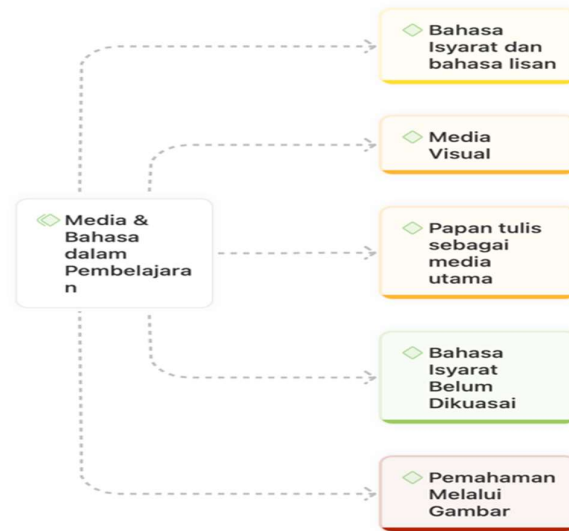


Figure 6 Coding Media and Language Findings in Learning

From a syntactic perspective, many students struggle to clearly construct subjects and predicates. Numerous sentences consist only of two elements, such as subjects and predicates without objects or modifiers, which indicates a limited understanding of complete sentence structures. This observation is consistent with studies that report DHH children often produce shorter and less informative texts compared to their hearing peers, as well as having more semantic, morphological, and syntactic errors (Vizzi et al., 2023).

In terms of morphological skills, the use of affixation, such as *me-*, *di-*, *-kan*, and *-an*, is still very limited among students. Only a small number of students can recognize simple examples, such as “*menulis*” or “*buku-buku*” but their application in sentence contexts remains minimal. This finding supports research indicating that deaf individuals tend to experience barriers in acquiring spoken and written language due to limited linguistic access from an early age (Dirks & Szarkowski, 2022). Additionally, the use of reduplication has not been widely practiced by students in sentence contexts, although some students can identify reduplicated words in everyday conversations.

Teachers at SLB employ various strategies to assist students in constructing sentences, including scaffolding, providing sentence examples, and offering direct feedback during the writing correction process. However, challenges such as limited proficiency in sign language among both teachers and students, a lack of training in the use of digital media, and insufficient coordination with parents are frequently encountered. These findings align with studies indicating that the role of sign language is crucial in the education of DHH students, but its effectiveness depends on the teacher's proficiency in using sign language (Henner & Robinson, 2023; Scott & Cohen, 2023).

Sign language plays an important role in helping students understand written language concepts, but its effectiveness is still limited as many students have not fully mastered it. The use of visual media, such as images and videos, has proven to be very helpful for students in understanding morphological and syntactic concepts; however, in writing skills, many students tend to copy texts without understanding the sentence structure. This finding is consistent with research showing that visual media is highly effective in enhancing student understanding, but it is important to focus on

comprehending syntactic concepts rather than mere text reproduction (Forsling & Tjernberg, 2023).

Evaluation is conducted gradually, using indicators such as the ability to construct simple sentences, the correct use of verbs and nouns, understanding sentence structure (SPOK), and the proper use of punctuation and capital letters. The results indicate a difference in abilities between students who receive visual media support and those who do not, with students accustomed to visual representations showing faster progress in understanding sentence structures and using affixation. Overall, these findings highlight the critical areas of development in writing skills among DHH students and underscore the need for targeted instructional strategies to enhance their learning outcomes.

2. Discussion

The findings of this study align with existing literature that identifies key barriers to acquiring spoken and written language among deaf and hard of hearing (DHH) students. One significant barrier is the limited linguistic access from an early age, which often results in delays in pragmatic development and contextual understanding. This limitation adversely affects their ability to construct complete sentence structures, as noted by Szarkowski et al. (2020).



Figure 7 Concepts

Additionally, the frequency analysis of words from the interview results reveals that terms such as "writing" (43), "language" (21), "sign language" (21), "images" (25), "understanding" (31), "words" (16), "writing" (16), "understand" (16), "copying" (12), "conversation" (13), and "deaf" (13) dominate discussions related to morphosyntactic patterns in the writing skills of DHH students. The prominence of these words suggests that the writing process for DHH students is closely linked to language comprehension, the use of sign language, and the utilization of visual media such as images.



teachers need to be more proactive in implementing scaffolding techniques and repetition to ensure students grasp syntactic and morphological concepts effectively (Rocha et al., 2023). The analysis indicates that aspects of morphology and syntax, such as word usage, sentence structure, and activities like copying and conversation, are primary focuses in writing instruction.

Considering these findings, several implications for curriculum and instructional practices emerge. It is essential to systematically incorporate lessons on morphology and syntax from the early grades, focusing on affixation, reduplication, and simple sentence structures. The curriculum should be flexible and adaptive to accommodate the heterogeneous ability levels of DHH students. Additionally, teachers require further training in effective sign language use and translanguaging strategies. Intensive practice in utilizing digital media and multimodal approaches is also necessary to enhance student interaction and understanding.

Furthermore, enhancing parental participation is crucial; coordination with parents should be intensified to ensure that learning continues at home. This aligns with studies indicating that *parental language input* (PLI) has a direct impact on the language development of DHH children (Curtin et al., 2021). The integration of technology in learning is another area of potential; morphosyntactic-based learning models using digital media have significant potential to improve student learning outcomes. Some teachers have expressed a willingness to try such models if infrastructure and training support are available.

Finally, future research could focus on evaluating the effectiveness of specific teaching techniques, the role of technology in learning, and conducting longitudinal studies to monitor the development of writing skills among DHH students over time. The validation of data through triangulation, member checks, peer reviews, and audit trails has demonstrated the reliability of these findings, providing a solid foundation for developing more inclusive and adaptive learning strategies for DHH students.

CONCLUSION

This study highlights the critical challenges and strategies involved in enhancing writing skills among deaf and hard of hearing (DHH) students in Indonesian special needs schools (SLB). The findings indicate that DHH students often struggle with morphosyntactic patterns in their writing, primarily due to limited linguistic access from an early age and insufficient systematic instruction in key areas such as affixation and reduplication. The analysis reveals that many students are still in the early stages of writing development, producing primarily isolated words or simple sentences, with compound and complex structures remaining a significant challenge. The study underscores the importance of integrating translanguaging strategies and visual media in teaching practices to support DHH students' language comprehension and writing skills. Furthermore, parental involvement and effective teacher training in sign language are essential for fostering a supportive learning environment. The implications for curriculum development emphasize the need for flexible and adaptive approaches that cater to the diverse abilities of DHH students, ensuring that they receive the necessary support to enhance their writing skills. Future research should focus on evaluating specific teaching techniques, the role of technology in learning, and longitudinal studies to monitor the development of writing skills among DHH students over time. Overall, this research contributes valuable insights into the pedagogical practices that can improve the academic success of DHH students in writing.

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