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Implementation of Inclusive Education for Deafblind Students: A Systematic Literature Review of Challenges and Best Practices

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Abstract: Inclusive education for students with deafblindness continues to face major challenges, particularly in developing countries, due to limited policies, a lack of trained educators, and scarce resources. This study aims to identify both the challenges and best practices in implementing inclusive education for students with deafblindness through a Systematic Literature Review (SLR) approach. The findings reveal that successful inclusion depends on teacher preparedness, the use of assistive technology, and supportive educational policies. Developed countries have implemented strategies such as communication interveners and multisensory learning methods, while developing nations struggle with resource limitations and low public awareness. This study emphasizes the importance of family involvement, adapting the learning environment, and collaboration among schools, communities, and governments to support effective inclusion. As a recommendation, enhancing teacher training, providing assistive technology, and evidence-based policymaking are crucial to improve accessibility and the quality of education for students with deafblindness.

Keywords: Inclusive Education, Deafblindness, Challenges, Best Practices, Systematic Literature Review.

INTRODUCTION

Inclusive education aims to ensure that all children, including those with deafblindness, have access to equitable and quality education. However, the reality in many countries shows that students with deafblindness still face significant barriers in obtaining effective inclusive education (Jaiswal, Gupta, & Sharma, 2018; Masuku, Khumalo, & Moroe, 2024). In many developing countries, the lack of trained educators, limited assistive technology, and the absence of supportive policies are the main factors hindering the success of inclusive education for students with deafblindness (Sundqvist et al., 2023). Even within special education systems, services for students with deafblindness lag behind those provided for other disability groups (McLetchie & Zatta, 2019). This situation occurs because the unique needs of individuals with dual sensory impairments are often not fully understood or met within frameworks designed for either visual or hearing impairments alone.

The World Federation of the Deafblind (WFDB, 2018) also reports that individuals with deafblindness often experience limited access to formal education due to the lack of specific policies accommodating their needs. This is supported by Ziegler (2022), who states that educational support for deafblind students remains inadequate globally due to overly generalized approaches and a shortage of professionals trained specifically in deafblindness.

Several previous studies have discussed the success factors of inclusive education for students with deafblindness. Masuku et al. (2024) found that developed countries have implemented strategies such as the use of communication interveners, multisensory methods, and early interventions to increase educational accessibility. Moreover, an integrative study by Sundqvist et al. (2023) highlighted that effective educational interventions for children with deafblindness mainly focus on strengthening communication and social interaction, as well as adjusting learning environments to be more responsive to their needs. Despite the proposed strategies, a study by Kushawaha & Ahuja (2024) revealed that gaps in policy implementation still exist, particularly in developing countries. Unresolved challenges include the lack of educators with specialized expertise in supporting deafblind students, insufficient funding for assistive technologies, and social barriers such as stigma and lack of awareness regarding the educational rights of deafblind students.

In addition, although some research has addressed general challenges and solutions in inclusive education, studies that specifically focus on proven best practices for the inclusion of deafblind students remain scarce. Several previous reviews have merely highlighted policy aspects without discussing actual implementation in the field, while others concentrate more on the challenges without offering evidence-based strategies applicable across different educational

contexts.

Therefore, this study aims to identify the challenges and best practices in implementing inclusive education for students with deafblindness through a systematic literature review. The findings are expected to contribute to the development of inclusive education policies and practices, especially in developing countries like Indonesia, which face limitations in both resources and information.

METHOD

This study employed a Systematic Literature Review (SLR) approach with thematic analysis to identify and analyze patterns and gaps in the literature regarding the implementation of inclusive education for students with deafblindness. Literature searches were conducted through databases such as Scopus, Google Scholar, ResearchGate, and SINTA using keywords such as “deafblind inclusive education” and related terms. The research stages included: (1) Identification of sources – an initial exploration based on keywords and relevant topics; (2) Literature selection – filtering sources by publication year (2016–2024), content relevance, and source credibility; (3) Data extraction – collecting key information related to challenges and inclusive practices; (4) Data analysis – grouping findings and identifying patterns and gaps in the literature; (5) Conclusion drawing – formulating conclusions and developing recommendations based on the findings.

This study has several limitations, primarily the lack of literature discussing the Indonesian context, as well as the scarcity of empirical evidence regarding direct implementation. In addition to academic journals, some sources were obtained from reputable organizational publications such as *Sense India* and *Deafblind Perspectives*, which were considered due to the rarity of the topic and their practical value.

RESULTS AND DISCUSSION

This section presents the findings from a systematic review of the literature on the implementation of inclusive education for students with deafblindness. The findings are grouped into six themes: definition of deafblindness, context of inclusive education, characteristics of successful deafblind students, best practices, implementation challenges, and teacher attitudes and competencies. The results and discussion are structured according to academic writing standards.

Definition and Understanding of Deafblindness

Deafblindness is a unique form of multiple disability, not merely a combination of visual and hearing impairments. This condition significantly

impacts communication, mobility, and access to information (Ziegler, 2022; Bruce, Parker, & Zidar, 2021). According to the Individuals with Disabilities Education Act (IDEA), the definition refers to the specific needs that cannot be addressed by services designed solely for either visual or hearing impairments. Individuals with deafblindness often experience challenges in incidental learning and require individualized educational strategies (McLetchie & Zatta, 2019).

The Context of Inclusive Education Implementation

Inclusive education aims to open access to education for all children. However, in practice, its approach has not yet been fully responsive to the needs of deafblind students (Ainscow, 2020; UNICEF, 2023). Without substantially inclusive strategies, students with complex needs remain at risk of exclusion. This includes a lack of tailored instructional methods, insufficient environmental accommodations, and educational practices that fail to address the dual-sensory nature of deafblindness. As a result, inclusive education risks becoming symbolic rather than transformative for this population.

Characteristics of Deafblind Students Who Succeed in Inclusive Systems

Several factors support the success of deafblind students in inclusive education settings. First, students who retain some residual vision or hearing are generally better able to communicate and explore their environments (Bruce et al., 2021). Second, the ability to use assistive technologies, such as digital braille tools and augmentative devices, significantly contributes to their participation in learning (Sundqvist et al., 2023; Kushawaha & Ahuja, 2024). Third, strong family support plays a critical role in the student’s adaptation and sustained engagement in education (Jaiswal et al., 2018). Fourth, early intervention and school readiness programs help prepare students for inclusive settings (Ziegler, 2022; Masuku et al., 2024). Finally, students benefit from having established alternative communication methods, such as tactile signing or object cues, which enable them to connect and interact effectively with others (Olayi et al., 2021).

Best Practices in Inclusive Education

A number of effective strategies have been identified across various studies to support inclusive education for students with deafblindness. One of the most significant practices is the use of communication interveners or interpreters, who help bridge communication gaps and facilitate access to information (Padhye, 2023; Parker & Nelson, 2016). Additionally, multisensory learning methods—integrating touch, sound, and visual stimuli—have

proven effective in enhancing engagement and comprehension (McLetchie & Zatta, 2019; Sundqvist et al., 2023). Family involvement is another key component, including training and ongoing support to help families actively participate in the educational process (Jaiswal et al., 2018). Furthermore, adapting the learning environment—such as improving lighting, reducing noise levels, and ensuring physical accessibility—can make a significant difference in the learning experience (Aneraye & Shirpurkar, 2023). The development of Individualized Education Programs (IEPs) and collaboration among multidisciplinary teams are also critical to ensuring personalized support (Wakuru et al., 2020). Lastly, the use of assistive technology—such as electronic braille machines, audio devices, and screen readers—plays a crucial role in enhancing learning opportunities and promoting independence (Jaiswal et al., 2023).

Challenges in Implementation

The implementation of inclusive education for students with deafblindness faces multiple challenges. First, many educational institutions are not fully prepared in terms of infrastructure, human resources, or policy frameworks (Masuku et al., 2024). Second, the lack of teacher training results in instructional methods that are not adaptive to the complex needs of these students (Woodcock et al., 2022). Third, a shortage of assistive technology and learning resources is a widespread issue in many schools, particularly in low-resource settings (Kushawaha & Ahuja, 2024). Fourth, misclassification of students with deafblindness often leads to inappropriate educational placements and inadequate services (Ziegler, 2022). Lastly, communication and social interaction barriers contribute to feelings of isolation and limited participation in the learning process (Rodríguez-Jiménez et al., 2022).

Teachers' Attitudes and Competence

Teachers play a key role in the success of inclusive education. Studies indicate that educators with high levels of self-efficacy are more likely to implement differentiated, strength-based, and collaborative teaching strategies (Woodcock et al., 2022). However, many teachers report feeling unprepared to support deafblind students due to insufficient training, a lack of institutional support, and heavy workloads (Masuku et al., 2024). Therefore, experiential training programs and policy frameworks that formally recognize the role of specialists and interveners are essential. The presence of qualified personnel and targeted support systems significantly enhances teachers' confidence and capacity to meet the unique needs of deafblind learners (Parker & Nelson, 2016).

Policy Recommendations

This study recommends: (1) Continuous training for teachers and interveners (sign language interpreters), especially in communication strategies and assistive technology (Padhye, 2023; Woodcock et al., 2022). (2) Strengthening inclusive education policies that include specifications for students with multiple disabilities (Masuku et al., 2024; Kushawaha & Ahuja, 2024). (3) Provision and subsidization of assistive technology, including communication aids (Sundqvist et al., 2023). (4) Strengthening cross-sector collaboration, such as between health, social services, and education (Ziegler, 2022). (5) Community awareness campaigns and advocacy to support acceptance and recognition of this group (UNICEF, 2023).

CONCLUSION AND SUGGESTION

Conclusion

Although best practices have been found in several studies, their implementation is still limited by structural and cultural factors in various countries, including Indonesia. The findings of this research emphasize that inclusive education for students with deafblindness still faces significant challenges, particularly in the availability of trained educators, access to assistive technology, and supportive policies. However, the review also shows that various best practices, such as communication support, multisensory approaches, and family involvement, have had a positive impact on the success of inclusive education for this group. To ensure equitable education for students with deafblindness, strategic measures are needed, including strengthening inclusion policies, enhancing the quality of educator training, and investing in more accessible education technology and infrastructure for individuals with deafblindness. Additionally, community awareness and collaboration between schools, families, and communities are also key factors in the successful implementation of inclusive education.

Suggestion

This study employs a Systematic Literature Review (SLR) approach, which provides a broad understanding of the challenges and best practices in inclusive education for students with deafblindness. However, the main limitation of this research is the absence of direct empirical data from the implementation of inclusive education in schools. The literature-based analysis has not fully captured the social dynamics involved in the implementation of inclusive education for deafblind students across different settings. Future research is recommended to conduct field studies based on observations and interviews to gain a deeper understanding of the real-

life experiences of students, teachers, and families in inclusive systems. Additionally, further exploration of the effectiveness of teacher training models and the long-term impact of assistive technology use will provide more concrete insights for future inclusive education policies.

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