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Implementation of Multisensory Learning Methods for Visually Impaired Students: An Observational Study at SLB Bhakti Luhur

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Abstract

Children with visual impairment require special educational services with a multisensory approach in order to reach their learning potential optimally. This study aims to describe the implementation of learning methods, curriculum adaptation, and the challenges faced by teachers of visually impaired students. Using a qualitative observation method combined with in-depth interviews, data were collected from a homeroom teacher and a fourth-grade visually impaired student at SLB Bhakti Luhur. The results show that the teacher combines lecture and demonstration methods with tactile and audio media, since relying on a single sensory channel is not sufficient to build meaningful understanding, and that the school modifies the Kurikulum Merdeka independently due to the unavailability of specialized guidebooks. The student demonstrated good academic ability, active social interaction, and a strong interest in music, although she occasionally displayed anxious hand movements that eased with emotional support from the teacher. The study concludes that multisensory, tactile-based teaching and consistent emotional support are essential in helping visually impaired students learn effectively and build self-confidence.

Keywords: visual impairment; multisensory learning; Kurikulum Merdeka; special education

1. Introduction

Education is a fundamental right for every citizen, including children with special needs, such as visually impaired children. Visual impairment is defined as a condition in which an individual experiences a limitation or impairment of visual function, either total (blind) or partial (low vision), which requires them to rely on alternative senses such as hearing and touch (tactile) to access information and interact with the environment (Rahma Dini et al., 2023). This limitation has implications for all aspects of development, including cognitive, motor, and socio-emotional development, so that special education services designed adaptively and systematically are needed, as implemented in various Special Schools (SLB), in order to ensure that students reach their optimal potential.

The pedagogical approach for visually impaired children must be centered on the multisensory principle, since visual sense cannot be relied upon. Teachers in SLB consistently apply methods that emphasize the use of non-visual senses: lecture methods and audio media are maximized for the sense of hearing, while hands-on practice and tactile media (such as Braille and concrete objects) become the core of literacy activities and concept understanding (Agustin & Harsiwi, 2023; Rahma Dini et al., 2023). The application of this method generally

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cannot stand alone and needs to be aligned with curriculum modification, in the form of content reduction or adjustment of difficulty level to match each student's individual ability.

The implementation of the Kurikulum Merdeka (Independence Curriculum) is expected to provide a more flexible learning space that matches individual specific needs (Darmawati et al., 2024). However, in practice, this curriculum still faces substantial challenges for visually impaired children due to the limited availability of guidebooks and specialized media in schools. This condition requires teachers to modify the curriculum and develop teaching modules independently, a process that requires extra competence and time to adjust the Learning Outcomes (CP) to the unique needs of each visually impaired student (Mansur et al., 2023). The gap between the new curriculum policy and the availability of essential resources becomes a significant obstacle in the planning and implementation of optimal learning.

Beyond policy constraints and learning media, the focus of education for visually impaired children lies not only in academic achievement, but also aims to build students' independence in carrying out daily activities (Simanjuntak et al., 2025). This independence is achieved through life-skills training and mobility orientation integrated into the curriculum, making collaboration between teachers and families an essential prerequisite. Based on the urgency of documenting the adaptations that educators have made in the field, this observation focuses on analyzing the implementation of learning methods, curriculum adaptation, and the social interaction of visually impaired students at SLB Bhakti Luhur, with the aim of providing a real picture of learning practices for visually impaired children in the classroom.

2. Method

This study used a qualitative observation method combined with in-depth interviews. The observation was carried out participatively by visiting SLB Bhakti Luhur and interacting directly with the teacher and a visually impaired student on November 4, 2025. The observation subjects were a fourth-grade visually impaired student with the initials Valen (10 years old) and her homeroom teacher.

Interviews were conducted with the homeroom teacher to obtain information regarding learning planning, learning implementation, and curriculum adaptation for visually impaired children, and with the student to understand her learning experiences, challenges, and how she interacts and adapts within the school environment. The interview and observation data were then analyzed descriptively and qualitatively to determine how learning strategies were implemented and the supporting and inhibiting factors of the learning process for visually impaired students at school.

3. Results and Discussion

3.1 Result

The observed student, Valen (10 years old, grade 4), showed fairly good academic ability and did not experience significant difficulty in her lessons. She was very active and able to interact positively with the school environment. Her learning needs are unique: teaching methods must be supported by hands-on practice, simulation, and media involving the tactile sense in addition to audio and Braille, since lecturing alone is not effective enough.

Psychologically, Valen was fairly open with her teacher after being given encouragement and time to feel comfortable, but she showed a distinctive hand movement when feeling anxious or lacking confidence. Her strong interest lies in music, particularly singing, and she is also being guided to learn the keyboard as a form of self-development.

The school implements the Kurikulum Merdeka as the official curriculum, having previously used the 2013 Curriculum. In its implementation at the SLB, this curriculum is modified to match the abilities, characteristics, and needs of visually impaired students. Teachers refer to the government-set Learning Outcomes (CP), but since specialized guidebooks for students with special needs are not yet available, teachers independently develop teaching materials and learning strategies by utilizing real objects that can be touched or felt.

In designing lessons, teachers use various strategies tailored to each student's needs, with the main media being Braille, audio, and tactile media or real objects. The use of diverse media is considered important because relying on only one type of media makes it difficult for students to understand concepts thoroughly. Learning activities are carried out directly and contextually through hands-on practice or simulation; lecture and demonstration methods are still used but must be accompanied by activities that allow students to interact directly with the learning object. Assessment is conducted authentically, taking into account student engagement and understanding, while teaching modules are developed independently by teachers based on the Kurikulum Merdeka's Learning Outcomes, adjusted to students' characteristics.

In terms of social interaction, Valen has good social skills and actively interacts with her peers, and is able to adapt to various personalities and other types of disabilities in the school environment without being withdrawn. At the beginning of her studies, she showed fear and apprehension when interacting with new people, but after receiving encouragement and guidance from her teacher, she became braver in telling stories, expressing her feelings, and asking for help when facing learning difficulties. Her interest in music also helped increase her confidence and social skills through extracurricular activities.

A distinctive behavior identified in Valen is a small hand movement when she feels nervous or anxious. According to the teacher, this is not a negative behavior, but rather Valen's way of calming herself and building self-confidence, especially when she has to talk about the difficulties she is experiencing.

3.2 Discussion

These observational findings are in line with the studies of Rahma Dini et al. (2023) and Agustin & Harsiwi (2023), which show that learning for visually impaired children depends on a combination of audio and tactile media, since the sense of sight cannot be relied upon. The multisensory approach applied by the teacher at SLB Bhakti Luhur, as shown in the use of Braille, audio, and concrete objects, strengthens Valen's understanding of the material because she has a learning style oriented toward touch.

The challenges of modifying the Kurikulum Merdeka found at SLB Bhakti Luhur are also consistent with the findings of Darmawati et al. (2024) and Mansur et al. (2023), which confirm that the flexibility of the Kurikulum Merdeka has not been fully matched by the availability of

guidebooks and specialized media for children with special needs, requiring teachers to develop teaching modules independently. This condition indicates the need for more structured policy support and teacher training so that curriculum adaptation does not rely entirely on individual teacher initiative.

The development of Valen's independence and social skills also confirms the importance of the teacher's role in building the independence of visually impaired children, as put forward by Simanjuntak et al. (2025). Consistent emotional support, in the form of positive reinforcement and a sense of safety, was shown to help Valen manage her anxiety and appear more confident, both in learning and in social interaction. This shows that emotional support is just as important as providing tactile learning media in supporting the learning success of visually impaired children.

4. Conclusion

Based on the observation at SLB Bhakti Luhur of a fourth-grade visually impaired student named Valen, it can be concluded that the learning process has run well and has been adapted to the student's characteristics. Valen has fairly good academic ability, is active, and is able to adapt to a school environment with various types of disabilities. The teacher designed lessons using varied methods, such as simulation, the use of concrete objects, and other multisensory media, which proved to support Valen's learning process because she has a learning style strongly oriented toward touch and concrete experience. Valen's social skills also developed well with her peers, although she still shows a distinctive behavior in the form of hand movements when anxious, which can be optimized through emotional support from the teacher.

Teachers are advised to continue maximizing multisensory and tactile learning media, and to continuously update the Individual Learning Program (PPI) based on periodic assessment results so that learning becomes increasingly effective. Consistent emotional support, such as providing positive reinforcement, motivation, and a safe atmosphere, also needs to be maintained so that visually impaired students become increasingly confident in expressing themselves, both academically and socially.

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