



## **Orientation and Mobility Skills of Ninth-Grade Students With Visual Impairments at SKH Bhakti Luhur**

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**Abstract.** Orientation and mobility skills need to be taught to blind children, especially totally blind children, because through orientation and mobility they can increase their independence without always having to depend on others, move and change places safely and efficiently, and utilize other senses that still function. The purpose of this study was to obtain an overview of the abilities and difficulties of blind children, the atmosphere during orientation and mobility learning, and the implementation of orientation and mobility learning. This study applied a descriptive method with a qualitative approach, and data were collected through observation, interviews, and documentation studies. Based on the results of the study, it is known that totally blind ninth-grade children can participate in orientation and mobility learning with the help of teachers, starting from learning about orientation and mobility, learning about assistive devices and orientation and mobility techniques, learning about and describing the school environment, and learning, describing, and practicing the trailing technique. The difficulties faced by totally blind children during orientation and mobility learning were when practicing orientation and mobility in a large environment because there were no tactile cues that could be applied for orientation and mobility, as well as difficulties practicing orientation and mobility on stairs due to fear of falling. Teachers carry out initial, core, and closing activities during learning. The conclusions of this study form the basis for researchers to provide recommendations to school principals and teachers to optimize orientation and mobility learning for totally blind children on a regular basis.

**Keywords:** Orientation and Mobility, Visual Impairments

**Abstrak.** Keterampilan orientasi dan mobilitas perlu diajarkan kepada anak-anak tunanetra, terutama anak-anak tunanetra total, karena melalui orientasi dan mobilitas mereka dapat meningkatkan kemandirian tanpa selalu bergantung pada orang lain, bergerak dan berpindah tempat dengan aman dan efisien, serta memanfaatkan indra lain yang masih berfungsi. Tujuan penelitian ini adalah untuk memperoleh gambaran tentang kemampuan dan kesulitan anak-anak tunanetra, suasana selama pembelajaran orientasi dan mobilitas, serta implementasi pembelajaran orientasi dan mobilitas. Penelitian ini menggunakan metode deskriptif dengan pendekatan kualitatif, dan data dikumpulkan melalui observasi, wawancara, dan studi dokumentasi. Berdasarkan hasil penelitian, diketahui bahwa anak-anak buta total kelas sembilan dapat berpartisipasi dalam pembelajaran orientasi dan mobilitas dengan bantuan guru, mulai dari belajar tentang orientasi dan mobilitas, belajar tentang alat bantu dan teknik orientasi dan mobilitas, belajar tentang dan mendeskripsikan lingkungan sekolah, serta belajar, mendeskripsikan, dan mempraktikkan teknik trailing. Kesulitan yang dihadapi oleh anak-anak tunanetra total selama pembelajaran orientasi dan mobilitas adalah saat mempraktikkan orientasi dan mobilitas di lingkungan yang luas karena tidak ada petunjuk taktil yang dapat diterapkan untuk orientasi dan mobilitas, serta kesulitan mempraktikkan orientasi dan mobilitas di tangga karena takut jatuh. Guru melaksanakan kegiatan awal, inti, dan penutup selama pembelajaran. Kesimpulan dari penelitian ini menjadi dasar bagi peneliti untuk memberikan rekomendasi kepada kepala sekolah dan guru untuk mengoptimalkan pembelajaran orientasi dan mobilitas bagi anak-anak tunanetra total secara rutin.

**Kata kunci:** Orientasi dan Mobilitas, Tunanetra Total.

### **Introduction**

In the context of national education, children with special needs receive special attention through more detailed regulations in Law Number 20 of 2003 concerning the National Education System. Article 5 paragraph (2) of the law states that “citizens with physical, emotional, mental, intellectual, and/or social disorders have the right to special education.” This



provides a strong legal basis that inclusive education is not merely an option, but an obligation of the state and educational institutions to fulfill the rights of children with disabilities. Thus, education for children with special needs not only serves as a means of intellectual development, but also as a vehicle for empowerment so that they can live independently, be competitive, and actively participate in society.

One group of children with special needs is those who are totally blind. Total blindness is a condition in which a person has no vision at all or has very limited vision that is not functional enough to support daily activities. Ardhi (2013, p. 21) explains that a person is categorized as blind if, in the learning process, they need special tools, methods, or techniques to be able to learn effectively with very limited vision or even without vision at all. This condition has serious consequences for the child's ability to recognize their surroundings, which in turn affects their independence and quality of life.

The main obstacle for totally blind children is their limited ability to use their sense of sight to orient themselves in their environment. This limitation makes orientation and mobility (O&M) skills very important to develop from an early age. Orientation can be understood as the ability to recognize the environment by using the senses that still function to form a clear mental map, while mobility is the ability to move from one place to another safely, efficiently, and independently (Smith & Tyler, 2010, p. 378). With good orientation and mobility skills, blind children can use their hearing, touch, and other senses that still function to understand their surroundings and move independently in various contexts, including the school environment.

The importance of orientation and mobility skills is not only related to safety, but also has an impact on social, emotional, and academic development. Visually impaired children who have adequate O&M skills tend to be more confident, have better social participation, and are not completely dependent on others. Thus, education that emphasizes O&M skills contributes significantly to the independence of visually impaired children. This is in line with the views of Corn and Koenig (2002), who emphasize that the success of blind children's education does not only depend on academic achievement but also on the extent to which they are able to develop functional skills that support their daily lives. Previous research shows that orientation and mobility skills for blind children still face a number of challenges in school learning practices.

Research by Yulianti and Sopandi (2019, p. 35) on "The Implementation of Orientation and Mobility Learning for Visually Impaired Children at SLB Negeri 1 Bukittinggi" shows that although O&M learning is very helpful for visually impaired children in mastering orientation and mobility skills, its implementation in schools is not yet fully in line with the children's needs. The main factors that hinder this are the children's lack of understanding of the concepts of orientation and mobility and the limited learning facilities available. This situation highlights the gap between the ideal of inclusive education policy and the reality of its implementation in the field.

A similar phenomenon was also observed in a preliminary study conducted by researchers at SKh Bhakti Luhur Tangerang Selatan in March 2024. The results of the observation showed that totally blind children at the school had difficulty recognizing the school environment. They needed more time to find or move places efficiently and safely due to limitations in their orientation and mobility skills. These obstacles had a direct impact on the children's independence at school, for example, when going to class, the teacher's room, or the ceremony



field. The limitations in orientation and mobility among visually impaired children at SKh Bhakti Luhur Tangerang Selatan also have an impact on other aspects, such as self-confidence, participation in teaching and learning activities, and social interaction with peers. Children who are unable to move independently tend to be more passive, avoid activities outside the classroom, and be more dependent on the help of teachers or friends. This is in line with the findings of Emerson et al. (2009), which confirm that mobility limitations can cause anxiety, lower self-confidence, and hinder blind children from actively participating in social activities.

The results of this study are expected to contribute both theoretically and practically. Theoretically, this research can enrich studies on special education, particularly in the aspect of orientation and mobility for totally blind children. Practically, this research is expected to provide input for schools, teachers, and policy makers in designing more effective and adaptive learning strategies according to the children's needs. In addition, the results of this study can also inspire parents and the community to provide more optimal support for the development of independence in blind children.

## **Method**

This study used a descriptive method with a qualitative approach. The descriptive method was chosen because it is suitable for investigating phenomena that occur naturally in the field, which are then presented in the form of a research report (Arikunto, 2013; Sukmadinata, 2017). In the context of this study, this method was used to obtain data on the abilities, difficulties, atmosphere, and implementation of orientation and mobility learning for totally blind ninth-grade students at SKh Bhakti Luhur Tangerang Selatan. The qualitative approach was considered relevant because it emphasized an in-depth understanding of natural conditions without manipulation, with descriptive data (Arifin, 2014). Data collection was carried out using three main techniques, namely observation, interviews, and documentation studies. Observations were carried out by directly observing the students' activities during learning to record their abilities, obstacles, and interactions in getting to know the school environment (Arikunto, 2010). Interviews were used to obtain further information from classroom teachers regarding the implementation of orientation and mobility learning (Sugiyono, 2021). Documentation studies were conducted as a supplement by collecting data in the form of observation notes, photos of activities, and supporting documents (Sugiyono, 2018).

Data analysis was carried out in three stages, namely data reduction, data presentation, and conclusion drawing. Data reduction was carried out to sort relevant data to make it more focused (Moleong, 2017). The reduced data was then presented systematically to facilitate interpretation (Rijai, 2018). The final stage is drawing conclusions accompanied by a verification process of the field findings (Sugiyono, 2018). The conclusions are temporary and may evolve according to the research findings. Thus, this study provides a comprehensive picture of the implementation of orientation and mobility for totally blind children through a qualitative descriptive approach.

## **Result and Discussion**

Based on the results of observations, interviews, and documentation conducted at SKh Bhakti Luhur South Tangerang, it can be concluded that the abilities of totally blind ninth-grade students in orientation and mobility learning show significant variation. This variation reflects



the need to apply more adaptive and individualized learning strategies, given that the characteristics of totally blind children vary greatly in terms of cognitive, affective, and psychomotor abilities. In general, orientation and mobility are understood as important skills that enable individuals with visual impairments to recognize their environment, move around, and move independently and safely (Jacobson, 2013). Thus, the success of orientation and mobility learning will greatly determine the level of independence of students in their daily lives.

Respondents DK and A demonstrated relatively good abilities in recognizing, describing, and practicing orientation and mobility in the school environment. Both understood the basic concepts of orientation and mobility, recognized assistive devices such as canes, and knew their purposes. In practice, DK tended to be overconfident in his spatial memory, often walking too fast and bumping into objects or people around him. This condition shows that overconfidence can be an obstacle to mobility, because the child has not fully internalized the importance of safety strategies in movement. This is in line with the findings of Hill and Ponder (1976), who emphasized that blind children need systematic skills in spatial navigation, rather than simply relying on spatial memory.

Respondent A also has basic orientation and mobility skills, although in practice still shows some weaknesses. When applying the trailing technique, A often forgets to keep hand contact with the wall, requiring constant reminders from the teacher. In addition, A often drags his feet when walking, which can endanger safety and slow down movement. Concentration barriers are also seen in DK and A, especially when the surrounding environment is noisy. Noise and crowds make it difficult for both of them to focus, resulting in uncontrolled movements. This condition is in line with Brambring's (2005) research, which found that blind children often have difficulty maintaining attention in environments with many auditory stimuli, thereby affecting the effectiveness of their mobility.

Meanwhile, respondent T showed much more complex difficulties. Throughout the learning process, T required full assistance from the teacher, both verbal instructions and physical assistance. T's biggest obstacle was when practicing trailing on stairs. The child showed a high level of fear of stepping because of the worry of falling, so they tended to stop and refuse to continue the exercise. This condition caused significant anxiety, especially in crowded situations. T also showed passive tendencies in class, rarely communicating and lacking confidence. This illustrates that psychological factors, particularly anxiety and lack of confidence, play a major role in determining the effectiveness of orientation and mobility learning. These findings are consistent with the research by Emerson et al. (2009), which emphasizes that anxiety can be a major obstacle for visually impaired children in mastering mobility skills.

At the end of the learning stage, teachers evaluate the children's abilities. This evaluation covers independence, activity, social interaction, and the children's level of understanding of instructions. Teachers provide feedback, motivation, and close the activity with a prayer. In addition to evaluation, follow-up is also carried out through remedial activities for children who have not yet succeeded, as well as enrichment for children who are almost independent. For children who are sufficiently capable, the teacher provides further development with exercises outside the school environment, such as walking on the side of the road. This strategy reflects the principle of the continuum of learning, in which skills must be practiced gradually from familiar environments to more challenging environments (Wiener, Welsh, & Blasch, 2010).



The results of this study indicate that the orientation and mobility abilities of totally blind children are not uniform but are influenced by cognitive, emotional, social, and environmental factors. Respondents DK and A showed good potential for independence, although they still require supervision to reduce the risk of accidents and concentration disturbances. Meanwhile, respondent T faced significant obstacles in terms of both technical skills and psychological aspects, requiring full support from the teacher. In addition, the results of the study show the importance of repetition and gradual practice strategies. Visually impaired children need more time to develop spatial understanding than sighted children. Therefore, learning must be done consistently, repeatedly, and with an intensity that suits the child's needs. This is in line with Hatlen's (2000) statement that mastery of orientation and mobility skills requires continuous practice so that these skills are truly internalized.

Environmental factors are also one of the determinants of learning success. The absence of tactile cues in the ceremony field, for example, makes it difficult for children to determine direction and maintain consistency in their movement paths. This shows the need to adapt the physical environment to be more friendly to the visually impaired, such as installing guiding blocks or tactile signs. According to the WHO (2019), environmental accessibility is an integral part of the rights of persons with disabilities to inclusive education and safe mobility. Another interesting finding is the difference in confidence levels among students. DK's excessive confidence actually increases the risk of accidents, while T's lack of confidence is a major obstacle in mastering mobility skills. This condition shows that orientation and mobility learning programs should not only focus on technical skills but also on the psychosocial aspects of children. Interventions such as counseling, behavioral therapy, or group activities can help boost children's confidence and reduce their anxiety.

The results of this study confirm that orientation and mobility learning is a fundamental aspect of the education of totally blind children. The ability to recognize and move around the school environment is an important prerequisite for future independence. With the support of teachers, environmental adaptation, and individualized and contextual learning strategies, blind children have the opportunity to achieve an optimal level of independence.

## **Conclusion**

The results of this study on orientation and mobility learning in ninth-grade totally blind children at SKH Bhakti Luhur Tangerang Selatan show that the students' ability to recognize the school environment varies greatly. This confirms that orientation and mobility learning must be tailored to the individual characteristics of students, in terms of cognitive abilities, technical skills, and psychosocial aspects. The role of teachers is proven to be very central, not only as instructors but also as facilitators and motivators who bridge the gap between children and their environment. In addition, environmental adaptations such as the provision of tactile cues are important to support successful mobility. This study has several limitations. First, the number of respondents is limited, so the results cannot be generalized broadly. Second, the research was only conducted in a school context, so it did not explore the challenges of mobility for children in more complex community environments. Third, external factors such as family involvement were not explored in depth. Therefore, further research needs to involve more participants, cover contexts outside of school, and examine the role of family and community support in strengthening the orientation and mobility skills of totally blind children.





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