



Multisensory Method in the Study of Language Skills of Students with Special Educational Needs with Visual Impairment: A Preliminary Concept

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ABSTRACT

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The factor of academic excellence in primary and secondary school is very relevant to the mastery of reading. Furthermore, the ability to read proficiently is an important skill for academic mastery at a higher level, career and everyday life. Unfortunately, reading difficulty is the main challenge for students in primary and secondary schools, especially special education students. Referring to the International Student Assessment Program (PISA) 2009+ test (Malaysia's first participation) introduced by the Organization For Economic Co-operation and Development (OECD) shows that Malaysia's achievement is at an unsatisfactory level as it is in the bottom third group among 74 countries participants. Malaysia is below the international and OECD average performance (Exhibit 3). Pupils who are 15 years old fail to reach the minimum skill level of almost 60% in Mathematics, while 44% in Reading and 43% in Science.

Keywords: Multisensory Method, Language Skills, Students with Special Educational Needs, Visual Impairment, Preliminary Concept

INTRODUCTION

A situation that needs to be guided among typical students, especially students with special educational needs (MBPK) learning. MBPK learning is still in the category of students who can learn and be taught. Reading skills are an added value to MBPK to continue studying at a higher level. A higher education provides an easier path to a working life in the future. Those who are at a medium and high functional level have the opportunity to venture into many career fields.. Jesteru, reading skills are very important mastered by MBPK even at the basic level.

Referring to the Malaysian context of MBPK learning which consists of various disability categories such as autism, ADHD, intellectual disability, physical disability and down syndrome. Students with Special Educational Needs (SED) in learning face a serious problem in mastering reading skills based on the author's experience as a special education teacher for 15 years. More than 80% of students with learning disabilities face reading difficulties (Bin Shafie et al., 2022). The process of guiding reading skills to them is more challenging. Each individual student has a different level of functionality even

though they are the same in terms of ability category. This challenge is linked to the factor of cognitive disability and student behavior. Thus, the main challenge of special education teachers in the pdp process is to create an interesting learning environment and active involvement among students.. Differences in motor skills, cognitive abilities , behavior and social among students in one class highlight the differentiation in PDP strategies such as teaching reading skills to MBPK.

A Preliminary Concept of Multisensory Method in TheStudy of Language Skills of Students With Special Educational Needs

Planning and implementing PDP with more creative methods to attract students' active interest in learning is not an easy matter. Effective PDP planning is very important for teachers to teach Malayespecially reading skills to MBPK. This causes teachers to need to add knowledge related to learning methods that are more effective in nurturing student interest and stimulating student learning outcomes. Teachers need to be prepared to master aspects of the curriculum, have competence in the implementation of pedagogy and be able to understand the psychological aspects of learning well (Jaya et al., 2021).

Studies related to the multisessionary method have proven the effectiveness of learning for students and increasing the active involvement of students in PDP. This method approach has been studied as early as the 20th century, but implementation among special education teachers in Malaysia still needs to be improved. For this reason, this study was conducted to examine the level of knowledge and preparedness of Special Education teachers regarding the implementation of multisensory methods in guiding the reading skills of students with special educational needs (SEN).

Based on the author's experience, several factors have been identified as contributing to the problem of mastering reading skills among MBK students. MBPK behavioral factors identified are like destructive behavior, which refers to negative behavior shown by special education students in class. Disruptive behavior disrupts and hinders the learning process in the classroom (Mizan et al., 2021). This behavior is like making noise, shouting, asking for attention, physically disturbing friends and teachers. Children with autism spectrum disorder (ASD) who have behavioral problems make it difficult for students to focus and less effective PDP. The wisdom of the teacher to manage behavior is very necessary in driving the success and effectiveness of the PDP process especially the guidance of reading skills to MBPK(Mosbiran et al., 2021).

In addition, the disability factor in terms of cognitive reasoning is the main cause of the problem of mastering reading skills among MBPK learning. Learning MBPK is identified as having cognitive problems related to short-term memory. This is related to MBPK's cognitive ability to store information obtained over a longer period of time. Reading is a process that is controlled by various brain functions that are considered as a complex network. The reading process starts from the visual area, then the information spreads to the brain, especially in the left hemisphere by following two paths that complement each other in the reading process(Nordin & Alwi, 2022).Children with literacy problems experience functional continuity changes in their reading and attention networks at the beginning of literacy acquisition.

The multisensory approach is based on the principles of cognition and sensory integration theory. Cognition is a mental process to interpret, learn, and understand a learning process including observation that takes place in the human brain by combining various sensory stimuli, namely visual, auditory, kinesthetic and tactile. The hypothesis of sensory integration theory states that the learning process, the ability to plan and manage behavior occurs based on the appropriate level of ability to transform, integrate, and manage information from different senses in the same period. The Multisensory Method is a teaching method that involves the use of most of the students' senses because this gives the brain contact and kinesthetic memories to hang on to, as well as visual and auditory.John Dewey's philosophy suggests that teachers function as facilitators or motivators, who stimulate children to identify and develop themselves through sensory application(Nordin et al., 2022).Montessori, on the other hand, thinks that children have the mind to be absorbed by knowledge, they also have the power to teach themselves. Montessori developed a kinesthetic method to train writing and reading skills based on activities that have been set in order, namely:

- a) Detection of geometric figures,
- b) Double filling of tracing outlined by children
- c) Use of letter sandpaper.

Meanwhile, Grace Fernald suggests a VAKT teaching procedure that emphasizes syllables and parts of words. Fernando developed a multisensory approach where the distinguishing feature is detecting, and observed that children sometimes cannot learn through the usual reading method using visual and auditory channels. He believed that the addition of kinesthetic and tactile methods would help children's learning(Alwi & Nordin, 2022).

Based on this study, the multisensory method refers to a teaching and learning method (pdp) that stimulates 2 or more of the student's sensory sources, i.e. visual, auditory, tactile and kinesthetic simultaneously. This method plays a role in the entire pdp process that is implemented. The sensory stimulation aims to guide reading skills to MBPK. This method helps teachers plan and organize their lessons with efficient activities through independent student efforts and active involvement in learning activities. This study establishes the characteristics of MBPK as follows:

- i. Has been diagnosed with a learning disability
- i. Moderate and low mental intelligence
- iii. Low academic achievement
- iv. Having difficulty mastering basic reading skills
- v. Having academic achievement two years behind physical age in reading and writing skills.

The memorization method is a traditional method that is not suitable, it makes it difficult for students to understand, especially MBPK. Rehearsal and memorization methods are identified as resulting in boredom and failing to attract children's attention to learn to read (Alwi & Nordin, 2022). An alternative method which is the involvement of various senses while learning something new can increase mastery of reading skills. Studies suggested a combination of at least three basic senses that include visual, auditory and tactile in each teaching session with adjustments according to the student's level of achievement and memory. The three learning styles frequently used by students consist of visual, auditory and kinesthetic. In addition, the teaching method of Orton-Gillingham reading interventions is a structured and sequential method based on multisessions related to language. This intervention is able to leave a positive impact on students' reading results although it still requires further research (Bin Nordin et al., 2022). However, the implementation of this multisensory method requires the knowledge and preparation of teachers for more effective implementation in pdp. Various implementation strategies of multisensory methods can be applied in pdp with the teacher's commitment, careful planning and serious preparation.

CONCLUSION

This study is important because MBPK in Malaysia is still experiencing problems in mastering reading skills due to the implementation of less effective PDP strategies. In addition, this study serves as a benchmark related to the need to practice multisensory methods in pdp specifically related to reading skills guidance. The school can identify the need to carry out In-Service Training (LADP) related to this teaching method for teachers in their respective schools. This effort will improve the existing skills of teachers and provide new ideas for more effective implementation of PDP. While at the level of District Education Offices (PPD) and State Education Departments (JPN) they can take the initiative to design and organize teacher training programs or ongoing workshops to promote the implementation of multisensory methods to special education teachers in guiding reading skills to MBPK. Sophistication and the development of technology and communication have not yet changed teachers' teaching methods much. Teachers still apply teacher-centered methods by using textbook resources only or still apply traditional teaching methods. Traditional teaching methods are not able to increase the level of mastery of students in Bahasa Melayu because they are not able to encourage students' interest in the PDP process. Teachers need to be more creative and knowledgeable in guiding reading skills to MBPK. Students who have reading problems should be guided with more effective methods that are appropriate for their level. Teachers need to have and master various PDP skills and strategies to help students with problems. Teachers need to understand the need for the concept of rehabilitation in the classroom to overcome the problem of mastering reading and writing skills among school students, especially at the school level.

REFERENCES

- [1] Alwi, A., Nordin, M.N.B. (2022). Applying Information Technology-Based Knowledge Management (KM) Simulation in the Airline Industry. *International Journal of Mechanical Engineering*, 2022, 7(1), pp. 1249–1252
- [2] Bin Nordin, M.N., Rajoo, M., Maidin, S.S., Sulaiman, M.S.S., Mosbiran, N.F. (2022). Competencies on Implementations of 21st Century Technology on Teaching, Learning and Assessment. *Res Militaris*, 2022, 12(2), pp. 7320–7331
- [3] Bin Shafie, A.S., Binti Rubani, S.N.K., Nordin, M.N., Ibrahim, E., Talip, S. (2022). Micro-Pits Effectiveness for Controlling Friction in Planestrain Extrusion. *International Journal of Mechanical Engineering*, 2022, 7(1), pp. 1270–1280

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- [4] Jaya, S., Zaharudin, R., Hashim, S.N.A., Mapjabil, J., Nordin, M.N. (2021). Employing Design and Development Research (DDR) Approach in Designing Next Generation Learning Spaces (NGLS) In Teachers' Pedagogy and Technology Tools. *Review of International Geographical Education Online*, 2021, 11(7), pp. 1237–1246
 - [5] Mizan, M.Z., Lada, S., Hamzah, A.A., Esam, A., Nordin, M.N. (2021). Movement Control Order (MCO): AnSyar'iyah Political Approach. *Review of International Geographical Education Online*, 2021, 11(7), pp. 1225–1230
 - Mosbiran, N, F, B, M.; Mustafa, M, Z, B.; and Nordin, M, N, B. (2021). Special Elements and Values Needed in Leadership for Special Education. *Review of International Geographical Education (RIGEO)*, 11(4), 712-722. doi: 10.33403/rigeo.8006784
 - [6] Mosbiran, N.F., Mustafa, M.Z., Nordin, M.N., Abenoh, N.A., Saimy, I.S. (2021). Analysis of the Study of Individual Education Plans in Special Education. *Review of International Geographical Education Online*, 2021, 11(7), pp. 1231–1236
 - [7] Nordin, M.N., Alwi, A. (2022). Digital Video Broadcasting Implementation in WSN Environments. *International Journal of Mechanical Engineering*, 2022, 7(1), pp. 1256–1259
 - [8] Nordin, M.N., Alwi, A. (2022). Knowledge Management Model Implementation in Electronic Devices. *International Journal of Mechanical Engineering*, 2022, 7(1), pp. 1253–1255
 - [9] Nordin, M.N.B., Maidin, S.S., Rajoo, M., Magiman, M.M., Mosbiran, N.F. (2022). International Frameworks For 21st Century Competences: Comparative Education. *Res Militaris*, 2022, 12(2), pp. 7332–7344