Jurnal Pendidikan Inklusi Volume 5 Nomor 1 Tahun 2022 Page: 101-113
e-ISSN: 2580-9806

THE APPLICATION OF PROBLEM-BASED LEARNING MODEL THROUGH FLEADIO MEDIA TO IMPROVE READING AND WRITING SKILLS OF VISUALLY IMPAIRED STUDENTS IN CLASS VI SDLB PURWOSARI

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Abstract

Reading and writing are the basic abilities of a learner in the world of education. By reading a student is able to obtain information using word media while writing makes a student able to transform ideas through writing that can be read by others. Apart from normal students, reading and writing are also abilities that must be possessed by inclusive children. This study aims to look for problems in SDLB Purwosari, namely to find out the increase in reading and writing skills through FLEADIO media (flashcard braille animals and audio) in blind children. This study applies a problem-based learning approach, which is a quasi-experimental methodology. Performance evaluations, interviews, and observation are among methods used in data collecting. The analysis of the data was done with basic descriptive statistics. A sixth-grade student at SDLB Purwosari served as the research subject. The study's findings demonstrated that using FLEADIO (braille animals and audio flashcards) media improved the reading and writing abilities of SDLB Purwosari's class VI pupils.

Keywords: *Visually impaired children, Problem-Based Learning, Media Flashcard Braille*

INTRODUCTION

Every individual, without exception, has the right to education. There is no difference between social standing, financial situation, or physical limitations, and the right to education. Everyone has the right to access education in their area and the right to a good education (Supena & Munajah, 2020). The deliberate transfer of culture from one generation to the next is done through education. Based on past learning, education shapes the current generation into role models. Besides focusing on the formation of knowledge and skills, education also aims to fulfill the needs, desires, and talents of each person in order to foster a fulfilled social and personal life. Education is essential for children's current growth towards adulthood as well as to prepare them for life beyond school (Rahman et al., 2022). The formal body in charge of educating people is the school. Schools play an important role in providing a place for students to express their opinions (Alpian et al., 2019).

One of the sources of knowledge that can be obtained to obtain lessons at the beginning of the education era is qualified and experienced teachers or instructors (Khaeroh et al., 2020). For children, going to school serves as a distraction from their main activities of playing and

enjoying youth and adolescence. They study morality and aesthetics (art) and learn to count and read letters in their spare time. Achieving student learning goals can be accomplished in a number of ways, including by developing students who are proactive and imaginative in the planning, execution, and completion of tasks. The learning process is one-way. Facilities are devices that provide simultaneous access and dissemination of educational content without regard to location or time constraints for instructors, students and other school occupants (Daulay et al., 2022). The availability of adequate facilities and quality educational materials can increase student motivation to study harder and longer (Febri, 2021).

An inclusive school accepts all students in the same environment and offers a curriculum that is age-appropriate and customized to meet the needs of each student. For every child to succeed and have their needs met, they are all welcome in the community. This suggests that an inclusive education system allows students with special needs to get help in local schools (Dhoka et al., 2023). According to expert recommendations, children with special needs should attend inclusive schools where they can interact with more able students in public schools and benefit academically from higher standards (Jesslin & Kurniawati, 2020). For school leaders, the inclusive approach presents new challenges (Putri & Hamdan, 2021). The curriculum and teaching used for children with special needs will be organized more effectively by teachers who have a more supportive attitude towards them. The goal of inclusive education is to create a welcoming and child-friendly learning environment where every student can reach their full potential in a way that best suits their individual needs and skill levels (Ishartiwi, 2023).

A particular focus in efforts to improve the quality of life of children with special needs is the condition of the visually impaired. When compared to children of the same age who are not visually impaired, visual impairment can cause various limitations that have an impact on children's growth and development (Savira et al., 2019). In order to be communicative and receive verbal explanations from others, visually impaired children need communication skills in order to ask questions about various topics (Handoyo, 2022). Improving the quality of life of children with special needs largely focuses on visual impairment. A child's development may be hampered by this reduced vision in ways that differ from children of the same age who do not have vision problems (Savira et al., 2019). The ability to distinguish braille letters with fingertips takes the role of the eyes in the reading comprehension of visually impaired children. Since braille writing is an important medium in conveying information for blind students, braille proficiency is seen as a basic skill that they must acquire from an early age (Adhitya, 2017). Louis Braille created the Braille code. Similar information can be found in books, but this code was designed for blind and visually impaired people. Braille letters can represent

letters, numbers, punctuation marks, symbols, and more. Braille letters are read from left to right (Dzunurain & Wasisto, 2022).

Learning media for blind children is needed as an aid used during the learning process. A teacher must provide interesting and relevant learning materials that meet the needs of their students during the teaching and learning process (Mawa et al., 2023). Learning instructions, tactile sensitivity, letter identification techniques, and line tracing skills are some of the skills that blind children and adults can use to improve their letter recognition (Winda et al., 2022). Media that can be used for blind children are print and audio media. Books, manuals, exercise books, job aids and loose sheets are examples of print-based media. Reglets and pens (stylus), letter boards, Braille typewriters, and optacooptionsces that convert printed letters into touchable letters) are examples of reading and writing aids. Television, slide-tape, film, programs, and video are examples of audio-based media. This type of media usually presents information mainly visually, so the aural aspect is not able to convey its content completely (Kusumawardhani, 2020).

Based on the results of observations, interviews, and initial tests conducted, researchers found problems in learning, especially for blind children in SDLB Purwosari in class VI students. Students still have difficulty in reading and writing. Based on the problems experienced by blind students at SDLB Purwosari, it is necessary to innovate, by implementing learning with the Problem-Based Learning model for blind children who experience problems in reading and writing. Which is as arranged in the Learning Implementation Plan (RPP). This study aims to determine the effect of the Problem-Based Learning model on the reading and writing skills of blind students in grade VI SDLB Purwosari using FLEADIO media (Flashcard Braille Animals and audio) containing animal sounds.

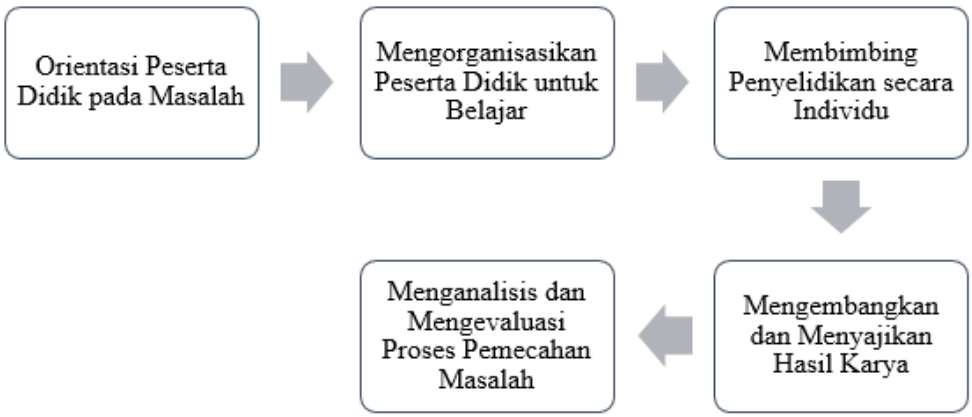
The media that fits these criteria is FLEADIO media (flashcard braille animals and audio), this media is in the form of a card where the card contains the writing of animal names written using braille letters, and is assisted by audio sounds through a smartphone that is able to emit animal names according to the name of the card. So by listening to audio and being able to read animal names through braille cards blind children can recognize the name of the animal. It is hoped that this media can maximize the senses that are still functioning, especially the sense of hearing, while realizing the importance of the teacher's role as a guide in the learning process. This is because, when a child is blind, experience in using the rest of his senses, especially touch and hearing, must be obtained (Praptaningrum, 2020).

One of the student-centered learning techniques is called Problem-Based Learning (PBL). To implement PBL in Sekolah Luar Biasa (SLB), teachers must play a role other than

students. It is believed that if the teacher is not there to provide direction, students can play around with friends or even cause new problems (Sufirmansyah & Prameswati, 2020). Thus, from the problems that researchers find and the learning innovations that want to be used in research to improve the reading and writing skills of grade VI students with visual impairments. This is in line with the research conducted by researchers with the formulation of the problem, namely to determine the effectiveness of the Problem-based learning model in improving reading and writing skills through FLEADIO media (Flashcard Braille Animals and audio) in blind children. The purpose of this study is to determine the ability to read before and after the application of FLEADIO media, determine the ability to write before and after the application of FLEADIO media, and determine whether or not there is an increase in reading and writing skills after applying FLEADIO media.

METHODS

This study utilized a quasi-experimental methodology in a quantitative research design. Problem-based learning methodology was used inpenelitian ini, dan kegiatan The pre-test and post-test were included to measure the progress or regression that occurred during the study. The steps according to Ahmad et al., (2023) in the learning model that researchers used in this study are as follows:



Picture 1 Syntax of Problem Based Learning

This research uses these steps to see the learning process of blind students directly. Using this model makes it easier for researchers to observe students during learning or when treatment is given to students.

This research was conducted in June 2023, the place of this research was at SDLB Purwosari which is located at Jl Ganesha II No. 32, Purwosari, Kota District, Kudus Regency, Central Java Province with the research subject being a student with special needs who is visually impaired in class VI of SDLB Purwosari with the initials RF, male aged 12 years. The

determination was made with the consideration that the researcher had made previous observations at the school.

In this study, the problem-based learning model was assisted with 5 stages and there were pretests and post-tests. In this case the researcher was able to observe directly during the learning process. During this research process, researchers assisted by class teachers used a questionnaire to assess the results of observing the student learning process directly.

In this study, researchers previously used questionnaire, observation, and interview methods. The results of the methods used by researchers are as follows:

a. questionnaire

In this questionnaire, there will be several aspects provided by the researcher. According to Sekaran, a questionnaire is a tool used to assess research variables by asking a series of questions intended to collect data (Ardiansyah et al., 2023). The questionnaire can be filled in by the researcher with the help of a class teacher to see and adjust the abilities possessed by students at the time of the study. This questionnaire contains 2 aspects, namely reading ability and writing ability.

b. Observation

Observation is done during direct learning by the teacher in the classroom. Direct observation using the senses of sight, smell, hearing, touch, and when necessary taste is called observation. Tests, questionnaires, image and sound recordings, and observation guides are examples of instruments that can be used in observation (Saefuddin et al., 2023). The researcher has collected many pictures of students from observation activities related to anticipated research difficulties. This helped the researcher understand the circumstances of the children as well as the features of the institution. The reason for choosing this learning topic is because previous studies have found learning problems, namely with reading and writing.

c. Interview

The interview was conducted with the VI-grade teacher of SDLB Purwosari and asked several questions related to the learning process so far in class VI. According to Rachmawati, to obtain relevant and in-depth information about research problems, researchers and respondents conduct interviews, a technique for collecting data (Rifa'i, 2023). The interview activities obtained the following results: (1) Class VI has only one student with visual impairment, (2) The grade VI student still has difficulties when reading and writing, and (3) Students need a little long time when reading the text.

This study using data analysis techniques, namely descriptive statistics. Descriptive statistics is research conducted to analyze data through a description or description of data in the form of tables, diagrams, or graphs that have been collected and presented in a form that is easy to understand and read (Martias, 2021). Data analysis using descriptive statistics by comparing data from the final score of the results of the pretest and post-test when conducting research. From the results of the pretest and post-test scores, it can be a benchmark for researchers to see whether there is an increase or decrease that occurs in this study.

Problem-Based Learning Model Steps

a. Orient learners to the problem

In the first step, namely orientation to this problem, students are given a pretest to find out the initial knowledge that students or research subjects know. The researcher gave several questions that were asked to students, among others:

Table 1. Pretest Questions

Question	Answer
Name 5 two-legged animals you know!	Chicken, duck, goose
Name 5 four-legged animals you know!	Goat, cat, cow

From these answers, students were only able to answer 3 animals out of 5 animals asked by the researcher. Then students rewrite the answers that have been mentioned and can read back the names of the animals that have been written. At this stage, the researcher observes students and gets the results that students still have difficulty spelling some letters and reading less fluently.

b. Organizing Learners to Learn

In this step, students are directed to learn about animal adaptation material where researchers explain this material, starting from being given examples of lizard animals that adapt by breaking their tails when threatened by their enemies called mimicry. Furthermore, students are also given other examples by researchers regarding chameleon animals that can change color.

c. Guiding Individual Inquiry

After students are directed to learn animal adaptation material, then the researcher will guide students individually to do the post-test. At this stage, it starts with students being introduced to FLEADIO media (Flashcard Braille Animals and audio) by researchers in which the media contains animal names. Learners are asked to read the names of animals that have been written on Flashcard Braille Animals. Then the researcher provides the

Learner Worksheet (LKPD) for students to work on with the researcher playing audio containing animal characteristics and students will guess the animal to be written in the LKPD. If it is felt that students do not understand, the teacher will guide them during the LKPD process.

d. Developing and Presenting Work

The fourth step is to analyze the results of students' work and evaluate it. After students present the results of their work by reading and writing one of the characteristics of living things according to the recorded animal sounds played, the researcher then corrects and gives the correct answers to students if there are answers that are not correct about the results of students. Learners are also given awards in the form of applause for the results of their work.

e. Analyzing and Evaluating the Problem-Solving Process

In the last step, students present the results of their work by reading and students can write one of the characteristics of living things according to the recorded animal sounds played by the researcher.

RESULTS AND DISCUSSION

Furthermore, from the observation data of subjects with difficulty reading Braille letters and writing before and after being given intervention using FLEADIO media (Flashcard Braille Animals and audio). Filling in this observation table is assisted by a VI-grade teacher named Mr. Sukimin who is presented in table 1 below:

Table 2. Pretest and Posttest Observation Table

Reading Ability	***Pre-Test***	**Total**	***Post-Test***	**Total**
Ability to learn letter sounds and letter combinations	√	1	√	1
Ability to trace reading lines with fingers	-	0	√	1
Ability to pronounce word sounds	√	1	√	1
Ability to read words in text or writing	√	1	√	1
Ability to spell aloud then combine into nouns	-	0	-	0
Ability to maintain one's place while reading (e.g., feeling confused about where one has been or is reading)	-	0	√	1
Writing Ability	***Pre-Test***	**Total**	***Post-Test***	**Total**
Ability to use braille and correct punctuation marks	√	1	√	1
Ability to use reglet and styllus writing tools	√	1	√	1
Ability to sequence the correct letters in a word	-	0	-	0
Ability to determine spacing when writing	-	0	√	1
Ability to write or copy text correctly	-	0	√	1
Total	5		9	

From the pre-test and post-test checklist observation table above, it can be seen that there is an increase in the learning outcomes of blind students in reading skills and writing skills. In reading skills after being given a post-test there is an increase in several improvements, among others, namely students have been able to trace the reading lines with their fingers and have been able to maintain their place while reading. In line with the opinion (Deynilisa et al., 2023), blind children who read in Braille have a greater reaction in the primary somatosensory cortex, upper and lower visual parts of both hemispheres, to new words when reading in BOLD letters. The left dorsolateral prefrontal cortex processes responses to words that the user knows. Because their tactile methods and memory development can compensate for their visual limitations, visually impaired children may have stronger working memory skills.

Writing skills have improved in sorting the correct letters in a word and being able to write or copy text correctly. In line with Anindita's opinion, (2020), flashcards are one type of educational material that can increase student interest and excitement without causing verbalism. By using this media, students' learning abilities can be improved, abstract ideas can be concretized, and memory can be trained. Flashcards can also help SLB students' ability to write braille by strengthening the right brain's ability to remember braille symbols. The results of the overall data in the pretest and posttest checklist observation table of the subject's reading and writing ability scale are presented in table 3 as follows:

Table 3. Data Tabulation of Pretest and Posttest Reading and Writing Ability Scale of the Visually Impaired

		Pre-Test	***Post-Test***
Category	Reading Ability	3	5
	Writing Ability	2	4
	Total score	5	9

From the table, it can be seen that there is an increase in scores from the reading and writing ability scales. In the reading ability category, there was an increase in scores from 3 points at the pretest to 5 points at the post-test. In the writing ability category there was also an increase in scores from 2 points at the pretest to 4 points at the post-test. From the data on the comparison results of the ability of students before and after being given the intervention using the whole can be seen in table 4 as follows.

Table 4. Subject's Ability Before and After Treatment

Before Treatment	After Treatment
Difficulty in finding the reading line with the finger.	Can find the reading line with fingers.
Confusion when looking for the passage that has been read.	No confusion when looking for the passage that has been read.
Difficulty in spelling "Flashcard Animals"	Easy to spell "Flashcard Animals"
Difficulty in using braille letters in a word	Can use braille letters in a word
Slow in copying the text given by the teacher	Fast in copying the text delivered by the teacher

Judging from the table above that there is an increase in reading and writing skills through flashcard braille animals for blind children. The results of this study indicate an increase in the ability to read and write in class VI blind students at SLB Purwosari Kudus. This can be seen from the pretest and post-test table data which shows an increase in the scale score of reading and writing skills of blind children after the intervention using FLEADIO media (flascard braille animals and audio). Braille flashcard media is needed to be applied in learning to read the beginning of blind children (Khairani & Murtadlo, 2016).

This study aims to determine the effect of FLEADIO media (flascard braille animals and audio) on reading and writing skills in blind children. The results showed an increase in reading and writing skills in the subject of sixth-grade blind children at SDLB Purwosari. This can be seen from the pre-test and post-test data which shows an increase in the reading and writing ability scale score on the subject after being given the FLEADIO media intervention (flashcard braille animals and audio).

The results of this study are in line with research conducted by the results of this study are in line with research conducted by (Isnaini, 2013) proving that there is an increase in braille reading ability starting with the golding method for blind adolescents. The purpose of the golding method is to teach children how to use their fingers while maintaining their braille reading skills. Research conducted by Takaredas, (2021) shows that the use of the Drill method and Braille reading boards during the process of this learning activity can improve the ability to read Braille writing for blind students at SLB A Bartemeus Manado. The Drill method is the use of the term practice is often equated with the term repetition.

Writing scores improved, the application of the process approach was able to create a lively and interactive learning environment, facilitate the development of students' ideas through the division of labor through the stages of writing, and students were more satisfied

because of the encouragement and appreciation they received from teachers and peers. In line with Karyani et al.'s research, (2020), the problem-based learning model framework, also known as problem-based learning, encourages students to actively examine their learning progress throughout learning activities and gain a deeper understanding of the subject matter. The process approach was chosen for the essay writing instruction of this study because it distinguishes between the tasks of expressing the content of ideas and editing or proofreading the written work. However, there are differences between the editing and revision processes for blind and visually impaired students, the former using writing errors to identify corrections. Marking the location of errors requires the use of another medium as braille writing tools (such as stylus) cannot be used directly for such purpose.

CONCLUSIONS AND RECOMMENDATIONS

The use of FLEADIO media has a positive impact on the reading and writing skills of blind children. This is evidenced by the results of the pretest and posttest by looking at indicators of reading and writing skills. In the reading ability indicator there are 6 indicators where in the pretest question students are only able to complete 3 indicators and after being given a posttest students are able to complete 5 indicators. Meanwhile, in the writing ability indicator, there are 5 indicators, where in the pretest question students are only able to complete 2 indicators and after being given a posttest students are able to complete 4 indicators. This explains that there is an increase in the ability to read and write blind students using the help of FLEADIO media (Flashcard Braille Animals and audio).

Thus, the use of FLEADIO (Flashcard Braille Animals and audio) media is a good step to support the learning process of blind children. In addition to improving children's reading and writing skills, the use of this media can also increase student activeness because also by listening to the sounds of animals to answer FLEADIO (Flashcard Braille Animals and audio) students will not be bored in learning.

LITERATURE

Adhitya, G. (2017). Peningkatan Kemampuan Membaca Permulaan Huruf Braille Melalui Metode Scramble Pada Siswa Tunanetra Kelas I Di Slb a Yptn Mataram Increased Ability To Read the Beginning of Braille Through Scramble Metod on the Blind Students of Class I in Slb a Yptn Matar. *Jurnal Widia Ortodidaktika* , *6*(2), 139–148.

Ahmad, S., Aryanti, D., & Kurniawan, R. (2023). Model Pembelajaran Problem Based Learning (PBL) Pada Pembelajaran Tematik Di Sekolah Dasar. *Elementary School*

Journal Pgsd Fip Unimed, *13*(2), 213. https://doi.org/10.24114/esjpgsd.v13i2.46491

Alpian, Y., Anggraeni, S. W., Wiharti, U., & Soleha, N. M. (2019). Pentingnya Pendidikan Bagi Manusia. *Jurnal Buana Pengabdian*, *1*(1), 66–72.

Anindita, A. A. (2020). Pembelajaran Braille Bermedia Flashcard Di Tklb Tunanetra. *Jurnal Pendidikan Khusus*, *15*(1), 1–5.

Ardiansyah, Risnita, & Jailani, M. S. (2023). Teknik Pengumpulan Data Dan Instrumen Penelitian Ilmiah Pendidikan Pada Pendekatan Kualitatif dan Kuantitatif. *Jurnal IHSAN : Jurnal Pendidikan Islam*, *1*(2), 1–9. https://doi.org/10.61104/ihsan.v1i2.57

Daulay, S. H., Fitriani, S. F., & Ningsih, E. W. (2022). Pengaruh Fasilitas Sekolah terhadap Kemampuan dan Motivasi Belajar Siswa. *Edukatif : Jurnal Ilmu Pendidikan*, *4*(3), 3731–3738. https://doi.org/10.31004/edukatif.v4i3.2553

Deynilisa, S., Angreini S, W. D., Nurul A, S., & Nurardiati, B. (2023). The Influence of Braille Flashcards as a Counseling Media on Various Depths of Dental Caries on the Knowledge of Children with Blind Disabilities Groups. *Formosa Journal of Science and Technology*, *2*(3), 791–800. https://doi.org/10.55927/fjst.v2i3.3060

Dhoka, F. A., Poang, F., Dhey, K. A., & Lajo, M. Y. (2023). Pendidikan Inklusi Sebagai Upaya Mengatasi Permasalahan Sosial Bagi Anak Berkebutuhan Khusus. *Jurnal Pendidikan Inklusi Citra Bakti*, *1*(1), 20–30. https://doi.org/10.38048/jpicb.v1i1.2109

Dzunurain, M. K., & Wasisto, J. (2022). Pemanfaatan Koleksi Buku Braille Sebagai Sumber Informasi Siswa Penyandang Tunanetra di Sekolah Luar Biasa Bagian A Negeri Semarang. *Anuva: Jurnal Kajian Budaya, Perpustakaan, Dan Informasi*, *6*(1), 57–68. https://doi.org/10.14710/anuva.6.1.57-68

Febri, A. (2021). Pengaruh Kelengkapan Fasilitas Belajar Terhadap Hasil Belajar Matematika Siswa Kelas V Mi Nurul Ulum Madiun. *Jurnal Paradigma*, *11*(1), 187–201.

Handoyo, R. R. (2022). Analisis Teori Belajar dalam Metode Pembelajaran Membaca Braille pada Anak Tunanetra. *Jurnal Studi Guru Dan Pembelajaran*, *5*(1), 60–70. https://doi.org/10.30605/jsgp.5.1.2022.1616

Ishartiwi, I. (2023). Fungsi Unit Layanan Disabilitas dalam Mendukung Pelaksanaan Pendidikan Inklusif. *JPK (Jurnal Pendidikan Khusus)*, *19*(1), 7–19. https://doi.org/10.21831/jpk.v19i1.61202

Isnaini, B. (2013). Meningkatkan Kemampuan Membaca Permulaan Tulisan Braille Melalui Sistem Menggold Bagi Anak Tunanetra. *Jurnal Ilmiah Pendidikan Khusus*, *1*(1), 22–32. http://ejournal.unp.ac.id/index.php/jupekhu

Jesslin, J., & Kurniawati, F. (2020). Perspektif Orangtua terhadap Anak Berkebutuhan Khusus

di Sekolah Inklusif. *JPI (Jurnal Pendidikan Inklusi)*, *3*(2), 72. https://doi.org/10.26740/inklusi.v3n2.p72-91

Karyani, L., Maryani, I., & Purwanto, P. (2020). *Peningkatan Hasil Belajar Dan Keterampilan Menulis Menggunakan Model Problem-Based Learning Berbantuan Video Kelas Iiib Sdit …*. 252–260. http://eprints.uad.ac.id/21228/%0Ahttp://eprints.uad.ac.id/21228/1/24. Lilis Karyani-PGSD %28252-260%29.pdf

Khaeroh, I., Advelia, F., Rosyid, A., & Supena, A. (2020). Pelaksanaan Pendidikan Inklusif Untuk Siswa Dengan Hambatan Penglihatan (Low Vision) Di Sekolah Dasar. *JPI (Jurnal Pendidikan Inklusi)*, *4*(1), 11. https://doi.org/10.26740/inklusi.v4n1.p11-21

Khairani, M., & Murtadlo, D. (2016). Media Flashcard braille Terhadap Kemampuan Membaca Permulaan Anak Tunanetra. *Pendidikan Khusus*, 1–5.

Kusumawardhani, R. D. (2020). Pemanfaatan Media Pembelajaran Inovatif Bagi Peserta Didik Berkebutuhan Khusus. *Prosiding Seminar Nasional Pendidikan FKIP Universitas Sultan Ageng Tirtayasa*, *3*(1), 319–327.

Martias, L. D. (2021). Statistika Deskriptif Sebagai Kumpulan Informasi. *Fihris: Jurnal Ilmu Perpustakaan Dan Informasi*, *16*(1), 40. https://doi.org/10.14421/fhrs.2021.161.40-59

Mawa, H. A., Menge, C. D., Pare, M. I. T., & Baka, M. Y. (2023). Pemanfaatan Media Pembelajaran Yang Ramah Anak Berkebutuhan Khusus. *Jurnal Pendidikan Inklusi Citra Bakti*, *1*(1), 31–38. https://doi.org/10.38048/jpicb.v1i1.2108

Praptaningrum, A. (2020). Penerapan Bahan Ajar Audio Untuk Anak Tunanetra Tingkat Smp Di Indonesia. *Jurnal Teknologi Pendidikan : Jurnal Penelitian Dan Pengembangan Pembelajaran*, *5*(1), 1. https://doi.org/10.33394/jtp.v5i1.2849

Putri, Y., & Hamdan, S. R. (2021). Sikap dan Kompetensi Guru Pada Pendidikan Inklusi di Sekolah Dasar. *JPI (Jurnal Pendidikan Inklusi)*, *4*(2), 138. https://doi.org/10.26740/inklusi.v4n2.p138-152

Rahman, A., Munandar, S. A., Fitriani, A., Karlina, Y., & Yumriani. (2022). Pengertian Pendidikan, Ilmu Pendidikan dan Unsur-Unsur Pendidikan. *Al Urwatul Wutsqa: Kajian Pendidikan Islam*, *2*(1), 1–8.

Rifa'i, Y. (2023). Analisis Metodologi Penelitian Kulitatif dalam Pengumpulan Data di Penelitian Ilmiah pada Penyusunan Mini Riset. *Cendekia Inovatif Dan Berbudaya*, *1*(1), 31–37. https://doi.org/10.59996/cendib.v1i1.155

Saefuddin, M. T., Wulan, T. N., Savira, & Juansah, D. E. (2023). Teknik Pengumpulan Data Kuantitatif dan Kualitatif pada Metode Penelitian. *Pendas : Jurnal Ilmiah Pendidikan Dasar*, *08*(3), 5962–5974.

https://journal.unpas.ac.id/index.php/pendas/article/view/12005/5080

Savira, S. I., Wagino, W., & Laksmiwati, H. (2019). Apa yang Berbeda? Kemampuan Kognitif pada Anak Tunanetra Tanpa Pengalaman Visual (Congenital Visual Impairment). *JPI (Jurnal Pendidikan Inklusi)*, *3*(1), 20. https://doi.org/10.26740/inklusi.v3n1.p20-39

Sufirmansyah, S., & Prameswati, L. N. (2020). Implementasi Problem Based Learning dalam Mengoptimalkan Pembelajaran di Sekolah Luar Biasa Putera Asih Kediri. *AL-MURABBI: Jurnal Studi Kependidikan Dan Keislaman*, *7*(1), 90–103. https://doi.org/10.53627/jam.v7i1.3924

Supena, A., & Munajah, R. (2020). Analisis Kesulitan Belajar Membaca Anak Berkebutuhan Khusus di Sekolah Dasar. *Jurnal Basicedu*, *5*(1), 10–18. https://doi.org/10.31004/basicedu.v5i1.558

Takaredas, M. F. (2021). *Penggunaan Metode Drill untuk Meningkatkan Kemampuan Membaca Tulisan Braille Pada Siswa Tunanetra di SLB-A Bartemeus Manado*. *7*(2). https://doi.org/10.5281/zenodo.4774496

Winda, Syamsuddin, & Hadi, P. (2022). Peningkatan Kemampuan Membaca Menggunakan Textured Lettering Card (Kartu Huruf Braille) pada Murid Tunanetra Kelas VIII di SLB Al Qasmi Watampone. *ODEKA : Jurnal Orto Didaktika*, *1,1(1-19)*(March), 1–11.