



The Influence of Using Pop Up Book Media on the Early Reading Skills of Children with Mental Disabilities

Dinah Nur Wardah^{*}, Dewi Sri Rejeki, Tias Martika

Universitas Sebelas Maret Surakarta

**corresponding author email: dinahnw@student.uns.ac.id*

Article history:

Received: 02 December 2022

Revised: 29 August 2023

Accepted: 16 September 2024

Abstract: This research aims to know the influence of pop up book toward early reading ability of intellectual disability children of class IV C SLB Negeri Purbalingga in academic year of 2022/2023. This research used quantitative method. The design of this research is experiment one group pretest-posttest design. Subject of this research are 5 children with intellectual disability of class IV C SLB Negeri Purbalingga in the Academic Year of 2022/2023. The data collection technique is a reading test that have been tested for validity and reliability with content validity and reliability Interclass Correlation Coefficients (ICC). The data analysis techniaque in this sresearch used the Wilcoxon Sign Rank. The result show that the Asymp. Sig (2-tailed) scores at 0,43. The result of this research was significant to prove the effectiveness of the pop up book to increase early reading ability of intellectual disability children of class IV C SLB Negeri Purbalingga in academic year of 2022/2023.

Keywords: *Pop Up Book; early reading skills; mentally retarded children*

I. Introduction

Education is a right for every citizen without exception, including for people with disabilities. As promised by the state as stated in Law of the Republic of Indonesia Number 8 of 2016, Article 5 paragraph 1, which explains that education is one of the rights for people with disabilities, including for mentally retarded children. According to Kemis and Rosnawati (2013), mental retardation is a condition experienced by individuals who are characterized by a low intellectual level below average, namely with an IQ score of 84 or below, accompanied by adaptive behavioral barriers that are visible before the age of 16.

Desiningrum (2016) revealed that the low intellectual level in mentally retarded children causes mentally retarded children to experience difficulties in academic matters, one of which is difficulty reading. According to Tarigan (Meliyawati, 2016), reading ability is a complex ability which involves skills to recognize letters, linguistic elements and comprehension skills. The reading process also involves cognitive processes to get the message contained in the writing.

The emergence of reading difficulties experienced by mentally retarded children is due to obstacles in the abstract thinking process and deficits in their cognitive processes that appear in the processes of perception, memory, developing ideas, evaluation and reasoning. These obstacles in the perception and memory processes will affect students' reading abilities (Fauzia & Kustiawan, 2017).

These reading difficulties can occur at various stages of reading. The basic stages of reading expressed by Darmawandi et al., (2020) are divided into two stages, namely the initial reading stage which occurs at the early grade level and reading comprehension which occurs at the high grade level. According to Anggraeni and Alpian (Al-Muammar & Khan, 2012), initial reading is a learning process in recognizing letters, spelling letters into syllables to become words.

In addition to problems in the cognitive aspect, mentally retarded children also experience obstacles in the attention aspect which makes it difficult for children to allocate attention appropriately. Therefore, learning modifications can be carried out using interesting media or teaching aids that are adjusted to the characteristics of the child. The selection of the use of media or teaching aids in learning will help children focus their attention and concretize concepts (Kemis & Rosnawati, 2013).

Mentally retarded students in grade IV C of SLB Negeri Purbalingga experience initial reading difficulties which are seen when students cannot read words and mention letters written by the teacher on the board. And based on interviews that have been conducted with teachers, it is explained that almost all children have the same abilities where students have not been able to memorize all the letters.

There are several learning strategies that can be taken to overcome this problem, namely by using various interesting media. One of them is the use of pop-up book media. According to Dzuanda (Rahmawati, 2014) pop-up books are composed of movable parts or three-dimensional elements that can provide a more interesting visualization of the story when the page is opened.

Based on the description of the problem above, the researcher conducted a study using pop-up book media with the title *The Effect of Using Pop-up Book Media on the Beginning Reading Ability of Class IV C Disabled Children at SLB Negeri Purbalingga in the 2022/2023 Academic Year*.

II. Method

The research method used in this study is quantitative research with 5 students as subjects who are mentally retarded children in class IV C at SLB Negeri Purbalingga. The design in this study uses a one group pretest-posttest design. According to Sugiyono et al., (2019), the one group pretest-posttest research design is a research design that uses a pretest stage before being given treatment and implementing a posttest after being given treatment.

The stages that will be implemented in the study are a pretest to determine the initial abilities of students before the treatment is carried out. After the pretest is carried out, treatment is carried out on students using pop-up book media which is carried out in four meetings. In each meeting there are two sessions where each session is carried out for 45 minutes.

The instruments given during the pretest and posttest are the same questions with a total of 40 questions consisting of letter, syllable, and word material. The questions have been tested for validity using content validity techniques carried out by several experts or expert judgment.

The data obtained from the pretest and posttest results are presented in the form of tables and graphs which are then analyzed using quantitative analysis, namely non-parametric analysis of the signed rank test (Wilcoxon Sign Rank Test). This analysis is carried out by comparing the results of Assymp. Sig (2 tailed) with a significance level of 0.005.

III. Results and Discussion

A. Result

Students' initial reading ability is known from the pretest and posttest scores totaling 40 questions that have been declared valid. In the implementation of the pretest, students still have difficulty reading letters or spelling the arrangement of letters. The scores obtained by students have a range of 34.5-46.5 which are presented in table 1

Table 1. Descriptive Statistics of Pretest Scores

Descriptive Statistics							
	N	Range	Minimum	Maximum	Sum	Mean	Std. Deviation
Pretest	5	12,00	34,50	46,50	203,00	40,6000	5,17687
Valid N (listwise)	5						

It can be seen that the average value of students is only 40.6. After the pretest was carried out, the treatment was carried out using pop up book media and continued with the implementation of the posttest. In the implementation of the posttest, students were able to read letters that were previously unreadable. The posttest results have a range of values 58 - 81.5 which are presented in table 2

Table 2. Descriptive Statistics of Posttest Scores

Descriptive Statistics							
	N	Range	Minimum	Maximum	Sum	Mean	Std. Deviation
posttest	5	23,50	58,00	81,50	348,00	69,6000	9,53546
Valid N (listwise)	5						

The data above shows the average posttest score of 69.6. To find out the difference in score, the following is a comparison of the pretest and posttest scores presented in table 3

Table 3. Descriptive Statistics of Pretest and Posttest Scores

Descriptive Statistics							
	N	Range	Minimum	Maximum	Sum	Mean	Std. Deviation
pretest	5	12.00	34.50	46.50	203.00	40.6000	5.17687
posttest	5	23.50	58.00	81.50	348.00	69.6000	9.53546
Valid N (listwise)	5						

Based on table 3, it can be seen the difference in the lowest and highest scores before and after treatment using pop up book. The difference is also seen in the average score, which is 40.6 in the pretest and 67.2 in the posttest. While the standard deviation results in the pretest are 5.17 and the standard deviation in the posttest is 8.80. The following is a histogram as an illustration of the difference in the pretest and posttest results.

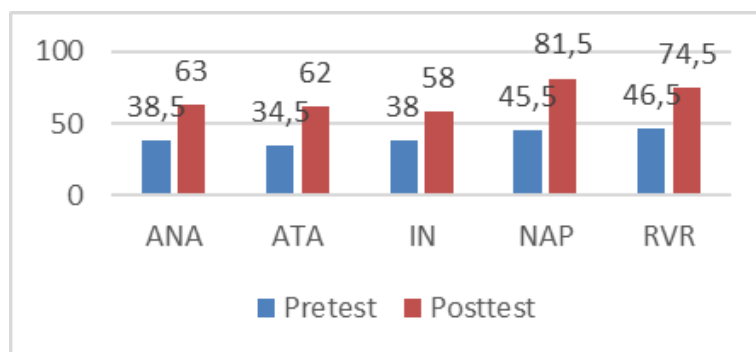


Fig. 1. Histogram of Student Grade Difference

Line fig. 1 shows the difference in scores obtained by students in the pretest and posttest. To determine whether there is an influence of media on the early reading ability of mentally retarded children, a hypothesis test was conducted using the Wilcoxon Test.

Table 4. Wilcoxon Sign Rank Test Statistical Test Results

posttest – pretest beginning reading ability	
Z	-2.023 ^b
Asymp. Sig. (2-tailed)	0,043

Based on table 4 from the results of the hypothesis test that has been carried out, the Z value obtained is -2.023 and the Asymp. Sig. (2-tailed) value is 0.043. This figure shows a number that is smaller than the significance level of 0.05. This shows that there is an influence of pop-up book media on the initial reading ability of mentally retarded children in class IV C at SLB Negeri Purbalingga in the 2022/2023 academic year.

B. Discussion

The implementation of learning for mentally retarded students in class IV C of SLB Negeri Purbalingga was carried out on 5 children with a total of 3 boys and 2 girls. The questions in the implementation of the pretest and posttest were the same questions. The value obtained was analyzed to determine whether there was an effect of media use on early reading skills.

Based on the results of the Wilcoxon Signed Rank Test analysis, there was an increase in the average pretest and posttest scores. The increase was seen after the treatment using pop-up book media was carried out for 4 meetings. During the implementation of learning, students looked more enthusiastic in participating in learning. As described in the previous chapter, one of the benefits of pop-up books according to Dzuanda (Rahmawati, 2014) is to foster children's love of stories and interest in reading. Another benefit is that pop-up books are media that are considered capable of visualizing something abstract into concrete (Bluemel & Taylor, 2012). These benefits are suitable for mentally retarded children, where mentally retarded children have difficulty in thinking abstractly.

There are many advantages in using pop up book media that can be used for learning for mentally retarded children. From the obstacles that mentally retarded children have where children have obstacles in cognitive abilities, abstract thinking, and attention problems. This pop up book media can be used as a teaching aid that can construct something abstract into concrete in line with the advantages mentioned by Mardiah (Nariswari, 2018) who stated that Pop Up Book has several advantages and is able to attract students' attention during teaching and learning activities so that the initial reading ability of mentally retarded children can increase.

However, apart from the advantages seen in the study, there are shortcomings and obstacles in the study where one room used for learning is filled by two classes and is only separated by a partition. So that in learning the two classes are easily disturbed because of the differences in activities carried out in the two classes. And from the results of the study there are children who are still categorized in sufficient abilities, this is because children are still easily distracted by disturbances and sometimes still walk around and sweep behind the class in the middle of learning.

IV. Conclusion and Suggestion

A. Conclusion

Based on the description of the discussion and research findings regarding pop-up book media, it can be said that pop-up book media has proven to be influential in improving the early reading skills of mentally retarded children. Pop-up book media has a significant influence on the early reading skills of mentally retarded children in class IV C at SLB Negeri Purbalingga in the 2022/2023 academic year, as evidenced by the calculation of the Asymp Sign value (2-tailed) which is not greater than 0.05, namely 0.43. Thus, it can be concluded that pop-up book media can be used as an alternative media in the learning process to improve the early reading skills of mentally retarded children at SLB.

B. Suggestion

Based on the research that has been conducted, the researcher provides suggestions for schools and teachers. Suggestions for schools are that schools should provide conducive room facilities for the learning process by providing one room for one class. So that learning will take place more conductively and not be disturbed by the presence of two different activities from two classes in one room. And suggestions for teachers are that teachers are advised to use learning media to support active and enjoyable learning so that learning outcomes will be optimal. Therefore, this pop up book media can be an alternative learning media in improving early reading skills.

References

- Al-Muammar, M. N., & Khan, F. (2012). Obesity: the preventive role of the pomegranate (*Punica granatum*). *Nutrition*, 28(6), 595-604.
- Bluemel, N.L & Taylor, R. H. (2012). *Pop-up Books: A Guide for Teachers and Librarians*. California: Santa Barbara.
- Darmawandi, A., Waruwu, A., Halawa, T., Harianto, D., & Muammar, M. (2020, September). Karakteristik tanah lunak Sumatera Utara berdasarkan pengujian kuat tekan bebas. In *Prosiding Seminar Nasional Teknik UISU (SEMNASTEK)*. 3(1), 16-20.
- Desiningrum, D.R. (2016). *Psikologi Anak Berkebutuhan Khusus*. Yogyakarta: Psikosain.
- Fauzia, A & Kustiawan, U. (2017). Multimedia Interaktif untuk Meningkatkan Kemampuan Membaca Permulaan Siswa Tunagrahita. *Jurnal Ortopedagodia*. 3(1). 6-12
- Kemis & Rosnawati, A. (2013). *Pendidikan Anak Berkebutuhan Khusus Tunagrahita*. Jakarta: PT Luxima Metro Media.
- Meliyawati. (2016). *Pemahaman dasar membaca (edisi revisi)*. Yogyakarta: Grup penerbitan cv budi utama.
- Nariswari, R.S. (2018). *Pengembangan Media Pop Up Book Untuk Pembelajaran Keterampilan Berbicara Bahasa Prancis Siswa Kelas X SMA Negeri 3 Klaten*. Skripsi. Yogyakarta: Universitas Negeri Yogyakarta
- Pemerintah Indonesia. (2016). *Undang-Undang Republik Indonesia Nomor 8 Tahun 2016 Tentang Penyandang Disabilitas*. Lembaran Negara Republik Indonesia Tahun 2016 Nomor 69, Tambahan Lembaran Negara Republik Indonesia Nomor 5871. Jakarta: Kementrian Sekretariat Negara Republik Indonesia.
- Rahmawati, N. (2014). Pengaruh Media *Pop Up Book* Terhadap Penguasaan Kosakata Anak Usia 5-6 Tahun di TK Putera Harapan Surabaya. *PAUD Teratai*. 3(1), 1-6.
- Sugiono, S., Noerdianah, N., & Wahvu, A. (2020). Uji validitas dan reliabilitas alat ukur SG posture evaluation. *Jurnal Keterampilan Fisik*, 5(1), 55-61.

