



Image Media Shapes Critical Reading in Elementary Education

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Abstract. This study intends to report the effect of the pretest and posttest scores of using media images on the results of learning critical reading skills in Indonesian students on the topic of extracting information from reading texts. Held on March 25, 2023, this research was conducted at Spande Elementary School, Sidoarjo Regency. Quantitative methodology was used to conduct this research. Data analysis strategy was used to evaluate hypotheses by utilizing descriptive statistics. This type of pre-experimental research uses a one-group pretest-posttest design, or an experiment conducted in one group without using a control or comparison group. The pretest and posttest results were compared, as the researchers knew. The average pretest score was 56.36 and the posttest average score was 74.16. The research hypothesis states that there is an effect of the use of media images on the critical reading skills of Indonesian language learning for third grade students at SDN Spande Sidoarjo, this is supported by the difference in the average pretest and posttest scores.

Keywords: critical reading, picture, effect

1 Introduction

The basic activity of education is the development of each person's abilities and skills. Every individual is born with cognitive, practical and psychomotor abilities that can be developed through education. It would be difficult to achieve maximum growth and development, both physically and mentally, without this step [1]. Later, the impact will be tangible for the person, thus helping them to socialize with other individuals in their environment.

The use of media is one of the tools that encourage people's ability to learn to read. The application of learning media will create a more comfortable learning environment because it can trigger students' learning enthusiasm, motivate participants and stimulate the teaching and learning process, and have a psychological impact on them [2].

The learning process applied by teachers to students can be made easier to understand with the use of learning media. With the influence of information and communication technology that can be accessed as a primary need that must be held by the community, the use and function of media today is growing rapidly. Learning media are tools, both physical and virtual, that are

consciously utilized to bridge the gap between teachers and students to make learning more effective and efficient [3].

One of the learning media that is often utilized is image media that is effective and innovative for students. Especially in the current digital era, of course, as a teacher, of course, you must introduce the development side of the world of digital learning technology [3]. In addition to teaching materials, it is easy to get, of course, with image media that is used as teaching material, of course it will be more interesting for students, students will learn and play in this way the learning process that participants encounter will be very interesting and will increase the curiosity of students to learn.

According to the above definition, the best way to maximize the desire to seek knowledge is to provide more innovative learning materials that are able to motivate the level of learning and give them the necessary ability to read critically. Researchers consider various things, including using media, namely image media. This is done so that students can still learn, have fun, and contribute to the expansion of knowledge. They can even create their own media images. At SDN Spande Sidoarjo, this learning media has not been utilized.

2 Research Methods

2.1 Type of research

Because this research uses picture media in learning, summarizing information and knowing its impact, the research that has been carried out utilizes an experimental approach. The experimental method is used to find out the effect of the treatment that has been given on other problems in controlled data conditions. There are always experiments carried out to find out how much effect a treatment has [4]. The experimental results show that the dependent variable is not only influenced by the independent variable, because there are external variables that contribute to the formation of the dependent variable. Because there are control variables and samples are not randomly selected. In pre-experimental research, the *One-Group pretest-Posttest Design* was utilized in this research design. No comparison group was utilized in the study [4].

2.2 Population and sampling technique

The saturated sampling technique is used to obtain samples from all populations. This technique is commonly used in research with populations that tend to be small, such as no more than 30 students, or research that expects to find a relatively small level of error. For this study, the researcher selected 25 students from SDN Spande.

2.3 Data sources and types

The data source is the subject from which this data is obtained. The source of data utilized in the research that has been made is the data from the pretest and posttest results to assess the effect and magnitude of the effect of the use of image media on the critical reading skills of participants taken directly from the research subject, namely SDN Spande [5]. Both primary and secondary data were utilized in this investigation. The key data utilized is from the use of picture

media on critical reading skills in Indonesian language acquisition at SDN Spande. While the secondary data utilized is documentation in the form of pictures taken during the learning process.

2.4 Research instruments

Researchers utilize research instruments to obtain data through measurement. Learning device instruments, as well as learning achievement test instruments, will be utilized in this study. Experts, viz:

1. Instrument Validity Test
2. Instrument Reliability Test

2.5 Data collection technique

Examination as a data collection instrument, which is a series of questions presented to students to measure student learning success. Specifically by giving two tests (*Pre-test and Post-test*), the initial test or *pretest* is intended to obtain information on the level of understanding of students before using image media, while the final test or *posttest* is intended to determine participants [6]. Critical reading skills in Indonesian language learning after utilizing learning media, namely utilizing image media in teaching and learning activities. In this study, the test was made in the form of an order to summarize the information in the picture that had been explained by the teacher. This instrument contains the participants' learning outcomes in paying attention to the contents of the picture. The test questions given are in the form of subjective tests, in the form of commands to summarize the results of images based on media [7]. And to determine the participant's score in the subjective test, the researcher uses the assessment aspects in listening.

2.6 Data analysis technique

What is meant is a way of analyzing data, which means analyzing data after obtaining additional data [7]. The purpose of this analysis is to evaluate the learning outcomes of SDN Spande Sidoarjo by using picture media. The purpose of this analysis is to determine whether picture media affects students' critical reading skills before and after treatment. Therefore, an initial experiment was conducted, namely:

1. Normality Test (*Liliefors* test)
2. Hypothesis Test (*t-test*)
3. Effect Level Test (*Eta-squared* Test)

3 Results and Discussion

From the results of data processing and research carried out, researchers obtained these data results:

3.1 Data result

Table 1. Data Normality Test Results Table

No.	Testing	L value		Description
		L_{hitung}	L_{tabel}	
1	Pretest	0,5295	0,173	Normal
2	Posttest	0,5796	0,173	Normal

Based on the table above, it can be said that the *pretest* & *posttest* data obtained values $L_{hitung} < L_{tabel}$.

Table 2. T-Test Hypothesis Test Results Table

No.	Description	Pretest	Posttest	Md	$\sum x^2$	Df = N - 1
1	Total score	1409	1854			
2	Average value	56,36	74,18	17,8	2302	24

$t_{hitung} = 4,64$
 $t_{tabel} = 2,064$

Based on the table above, it can be said that the *pretest* & *posttest* data obtained are $t_{tabel} 2,064$ and $t_{hitung} 4.64$ so $t_{hitung} > t_{tabel}$.

3.1.1 Effect level test results (*Eta-squared Test*)

$$Eta\ Squared = \frac{t^2}{t^2 + (N - 1)} = \frac{4,64^2}{4,64^2 + (25 - 1)} = 0,46$$

(1)

eta squared calculation obtained a result of 0.46.

3.2 Discussion

3.2.1 Discussion of data normality test results table

A t-test for one sample will be utilized to test the hypothesis that has been implemented. Parametric statistics are utilized when the data is normally distributed [8]. Therefore, non-normality testing of the data was carried out first. This tested whether the *pretest and posttest* scores were normally distributed. The researcher conducted this normality test by utilizing the Liliefors formula [9]. The table above shows that the pretest and posttest data obtained the value of $L_{hitung} > L_{tabel}$, which means that both are normally distributed. In addition, it can be utilized for research purposes.

3.2.2 Discussion table of hypothesis test results T- test

Hypothesis testing can be done after the data normality test is completed. Researchers conducted an effect analysis with the t test formula to obtain information on how this media has an impact on students' critical reading skills at SDN Spande Sidoarjo [10]. The hypotheses that have been analyzed are:

Ho: There is no effect of picture media on critical reading skills at SDN Spande Sidoarjo.

Ha: There is an effect of picture media on critical reading skills at SDN Spande Sidoarjo.

By using a 5% for the significant level and $df = N-1$ which is $25-1 = 24$ obtained t_{tabel} 2.064 and t_{hitung} 4.64 thus $t_{hitung} > t_{tabel}$ then Ho is rejected and Ha is accepted, as a result it can be concluded that **there is an effect of image media on critical reading skills at SDN Spande Sidoarjo.**

3.2.3 Discussion of the results of the effect level test (*Eta-squared Test*)

In this study, the analysis of the eta squared level was used to determine how much influence picture media had on critical reading skills at SDN Spande Sidoarjo [11]. With level criteria:

$0.01 \leq \text{eta squared}$: Small effect

$0.02 \leq \text{eta squared}$: moderate influence

$\text{eta squared} > 0.14$: large influence

With a level of influence of 0.14 in the eta squared range, the calculation of the level of influence produces a result of 0.46, indicating a large influence in the study. So it can be obtained that the critical reading skills of students at SDN Spande Sidoarjo are strongly influenced by image media.

Students' critical reading skills are influenced by the use of image media [12]. So the data analysis in the t test has results that are t_{hitung} greater than t_{tabel} 5% significance level. So it is similar to Musfiqon's theory that the media serves to make the learning process more effective [13]. According to him, learning media must not only be fun but also be able to meet the

individual creative needs of students. An additional idea conveyed by Gagne in the book is that learning media can encourage students to learn [14].

This is related to research published in scientific journals by A'isyatul Munawaroh Kusyari [6] and Risya Puspita Oktiana [15], who found that the use of picture learning media improved the learning ability of elementary school students. I have also seen the same thing in my research at SDN Spande, where there is a significance between the use of picture learning media when it has not and when it has. Therefore, the critical reading ability of elementary school students is greatly influenced by picture media.

4 Conclusions

Based on the results of the research and data analysis, the researcher concluded:

1. By using learning media, the effect of image media on participants' critical reading skills. Evident from the research results obtained price t_{hitung} is greater than t_{tabel} namely $t_{hitung} 4,64 > t_{tabel} 2.064$ means H_0 is rejected and H_a is accepted, the result shows that there is an influence of image media on critical reading skills at SDN Spande Sidoarjo.
2. The research result is 0.46 from the calculation of eta squared. At SDN Spande Sidoarjo, critical reading skills are strongly influenced by picture media.

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References

- [1] I. Oktaviyanti, D. A. Amanatulah, N. Nurhasanah, and S. Novitasari, "Analysis of the Effect of Picture Media on Primary School Students' Beginning Reading Ability," *J. Basicedu*, vol. 6, no. 4, pp. 5589-5597, May 2022, doi: 10.31004/basicedu.v6i4.2719.
- [2] Helaluddin, "Proficient in Indonesian (Personality Development Course in Higher Education)," *Open Science Framework*, preprint, Aug 2019. doi: 10.31219/osf.io/bepd7.
- [3] G. W. Pradana, M. F. Ma'ruf, and D. F. Eprilianto, "Application of Student T-Test to Assess the Effectiveness of Textbook Development for Fiscal Decentralization Course in Unesa Public Administration Department," *J. Dimensions of Educ. And Learning*, vol. 10, no. 2, pp. 182-190, Jul 2022, doi: 10.24269/dpp.v10i2.5096.
- [4] T. Suparman, A. G. Prawiyogi, and R. E. Susanti, "The Effect of Picture Media on Science Learning Outcomes in Elementary School Students," *J. Basicedu*, vol. 4, no. 2, pp. 250-256, Mar 2020, doi: 10.31004/basicedu.v4i2.332.
- [5] S. M. Dewi, "The Effect of Image Media on Students' Poetry Writing Ability," *J. Sekol. Elementary*, vol. 2, no. 1, Feb 2018, doi: 10.36805/jurnalsekolahdasar.v2i1.194.
- [6] A. M. Kusyari and D. Sutrisno, "The Effect of Demonstration Method Assisted by Cartoon Puppet Media on Indonesian Language Learning Outcomes in Class Ii Students of Sdn Pandean Lamper 01 Semarang," vol. 2, pp. 87-88, Apr 2017.

- [7] A. A. Akbar and T. Tarman, "The Effect of Image Media Use on Indonesian Language Learning Outcomes in Elementary School Grade IV Students," *JRPD J. Ris. Educ. Elementary*, vol. 1, no. 1, pp. 40-48, Apr 2018, doi: 10.26618/jrpd.v1i1.1238.
- [8] D. M. Ulfah and S. Soenarto, "The Effect of Using Video and Picture Media on Grade V Writing Skills," *J. Prima Edukasia*, vol. 5, no. 1, pp. 22-34, Jan 2017, doi: 10.21831/jpe.v5i1.7693.
- [9] R. Andani, "The Effect of Using Wayang Tokoh Media on Speaking Skills of First Grade Elementary School Students," vol. 03, May 2015.
- [10] A. L. Anggreani, C. Huda, and E. S. Setianingsih, "The Effect of Card Sort Strategy Assisted by Picture Media on Science Learning Achievement," *J. Ilm. Sekol. Dasar*, vol. 2, no. 4, pp. 364, Nov 2018, doi: 10.23887/jjisd.v2i4.16153.
- [11] R. Gustiawati, D. Arief, and A. Zikri, "Development of Early Reading Teaching Materials Using Fable Stories for Elementary School Students," *J. Basicedu*, vol. 4, no. 2, pp. 355-360, Mar 2020, doi: 10.31004/basicedu.v4i2.339.
- [12] Y. Tarumasely, "Differences in Learning Outcomes of Concept Understanding Through the Application of Learning Strategies Based on Self Regulated Learning," *J. Educator. And Entrepreneurship*, vol. 8, no. 1, pp. 54-65, Sep 2020, doi: 10.47668/pkwu.v8i1.67.
- [13] S. Julaiha, D. Syahputri, and S. Prihatini, "The Effect Of Picture As Media To The Students' Achievement In Vocabulary," *Excell. J. Engl. Educ.*, vol. 2, no. 1, pp. 21-25, June 2022, doi: 10.47662/ejee.v2i1.334.
- [14] S. Mahama and Moch. B. U. Arifin, "The Effect of Using Image Media to Increase English Learning Outcomes for Class 6 Students at Elementary School," *Acad. Open*, vol. 4, Oct 2021, doi: 10.21070/acopen.4.2021.3050.
- [15] R. P. Oktiana and F. P. Sari, "The Effect of Picture Media on Science Learning Outcomes of Third Grade Elementary School Students in Bener Village, Majenang District," *Soc. Humanit. Educ. Stud. SHEs Conf. Ser.*, vol. 5, no. 2, pp. 279, Jan 2022, doi: 10.20961/shes.v5i2.55212.

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