

The Effect of Using Picture Word Puzzle Games on Reading Skills Students SDN 13 West Bilah Labuhan Batu

Lili Kurniati^{1*)}, Sutikno², Rahmat Kartolo³

^{1,2,3}Universitas Muslim Nusantara Al Washliyah, Medan, Indonesia

Email: kartolo.lilikurniati69@gmail.com¹, sutikno@umnaw.ac.id², rahmatkartolo@umnaw.ac.id³

Correspondence Authors: kartolo.lilikurniati69@gmail.com

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ABSTRACT

*This study aims to analyze the effect of using picture word puzzle games on the beginner reading skills of grade II students of SDN 13 Bilah Barat. The background of this study is based on the low beginner reading ability of students due to less varied and interesting learning methods. This study used a quantitative approach with a One Group Pretest-Posttest design, in which the research subjects consisted of 22 grade II students. The research instruments were in the form of pretest and posttest tests, as well as observations during the learning process. The results of the data analysis showed that before the treatment, the average pre-test score of students was 63.2, with only 36% of students achieving the minimum completion criterion (KKM) of 70. After receiving treatment using picture word puzzle games, the average posttest score increased to 81.4, with 86% of the students achieving KKM. Statistical analysis using *t*-test showed that the *t*-count value (5.62) > *t*-table (2.08) at a significance level of 0.05, indicating that there was a significant difference before and after treatment. The results of this study indicated that picture word puzzle games have a positive and significant effect on students' early reading skills. With a more interactive approach, students become more motivated and more active in learning. Therefore, the use of educational games such as picture word puzzles is recommended as an alternative strategy for improving early reading skills in elementary schools.*

Keywords: Learning Strategies, Know Want Learned, Puzzle Media, Indonesian Language Learning

I. INTRODUCTION

Read is a window to the world, an expression that describes how important skills are read in human life. By reading, individuals can obtain knowledge, information, and entertainment. Skills read become the foundation of the learning process, especially at the level of elementary school (SD). This is where skills read beginning play a crucial role (Read, 2020).

Skills read beginning is the ability of basics to include introduction letters, understand the connection between letters and sounds (phonemes), and read simple words. Ability: This becomes a base for the development of skills that are more complex in the future. Without a strong foundation in reading beginning, students will experience difficulty in understanding more text complex, which can ultimately hinder their academic performance overall (Siregar et al., 2025).

According to Kandel (2025), reading is an interactive process that involves construction of meaning from written text. This process involves not only word recognition, but also comprehension and usage knowledge. In context read beginning, students need to develop the ability to recognize pattern letters, connect them with sound, and understand the meaning of words in context sentences simple (Kandel, 2025).

However, the reality on the ground shows that many elementary school students, especially in grade II, experience difficulty in reading beginning. Difficulty This can be caused by various factors, including

1. Method Lack of Varied Teaching: Methods monotonous and lacking teaching interactive can make student fast bored and lost interest in Study read.
2. Lack of Attractive Learning Media: Lack of learning media interesting and not in accordance with characteristics student can hinder the process of understanding draft.
3. Lack of Interest and Motivation Study Students: Interest and motivation low learning can make students not focus enough and lack enthusiasm in following activity learning.
4. Factor Environment: Environment family and social deficiencies support activity reading can also influence development skills read student.

Based on observations, the initial activity was carried out at SDN 13 Bilah Barat, Regency Labuhan Batu, and it was found that part big student class II still experienced difficulty in recognizing letters, spelling simple words, and understanding the meaning of the words read. The results show that the average value read student still had a standard minimum completion score (KKM). In addition, interviews with the class teacher disclosed that limitations of the learning media are one of the main causes of low ability to read beginner students.

The teacher revealed that frequent methods used still-based lectures and less conventional drilling involving students actively. As a result, students feel bored, and it is difficult to understand the connection between letters and sounds with good. This causes the need to look for more learning methods and media that are interesting as well as effective in increasing the skills of beginner students.

One of the alternatives that can be used is through game education, such as a picture word puzzle game. Game: This combines visual and verbal elements, which, according to Piaget (1970), can help children develop cognitive skills. Vygotsky also emphasized the importance of social interaction in learning, where the game educative can give students the chance to study in a way that is collaborative and constructive understanding in a way that is deeper (Oktafiana & Rahmah, 2025).

Lampadan and Laung (2025) stated that 'ability read is one of the key success students in reach progress.' Success Study students in following the activity process of Study Teaching in schools is very much determined by mastery ability reading. Therefore, skills read must be mastered by elementary school students because reading ability is related to the entire learning process teach (Lampadan & M Laung, 2025).

Students who are not capable of reading with good will experience difficulty in following the learning activity For all eye lesson. Students experience difficulty in capturing and understanding information presented in various book lessons, books, reading support, and resources Study written otherwise. Students will slow very slowly in absorbing lessons. As a result, progress learning is also slow compared to students who do not experience difficulty reading (Simon et al., 2025).

Word recognition is the basis for the beginning of coaching skills. It can be said that the introduction of this word is a skill prerequisite for reading in a smooth and thorough manner. Fluency and accuracy are the basis for the process of understanding reading.

Muhtar et al. (2024) stated that 'learning reading in class one and in class two (class low) is learning read stage the beginning that will become base learning reading in class next' (Muhtar et al., 2024).

Based on the above statement, the skills read beginning must be mastered by students. However, the reality is Still Far from expected. Success students read beginning Still less, they are not yet capable of reading fluently. The problems faced by teachers and students are mentioned above, caused by factors in teachers' understanding of the learning process. Strategies or methods applied by teachers who only revolve around the method explain, method ask answers, and method assignment, so that students often feel saturated and bored every time they study Indonesian. Students only fixated on the exercises provided by the teacher, which resulted in them experiencing difficulty in reading. Monitoring developments and obstacles during the process and results study allow students to read and use method games.

Frebel (in Goenaga et al 2025), a educator from Germany, believe that "one of the the best tool For educate children is through method game." According to his opinion, children are more ready and have the potential for play than in other ways.

Function play not only increases cognitive and social development but also develops language, emotions, discipline, creativity, and the development of physique in children. Through play, social children also develop, for example, social attitudes, learning communication, organizing roles, and respecting other people. Through playing, children can control their emotions, channel their wishes, and increase their sense of confidence. Children can also apply discipline with a wait-turn or obey regulations (Garcia et al., 2025).

By playing, the teacher obtains a complete picture of the overall self-students. For example, a teacher states that students ' behavior during time play can disclose the properties of the student that took place at his house. In another example, the teacher described the usual child as quiet and passive; it turned out that he became more active when involved in the game. Students behave more naturally during time play. This enables teachers to evaluate the ability of real students to play more easily and accurately than in formal situations (Salma et al., 2023).

One of the games that can be implemented in learning to read is the Picture Word Puzzle ". Game This aim: To help students recognize words in a fun and interactive manner. In the game, the teacher provides pieces of words that have been separated and must be arranged and returned by students based on available images. Each picture helps students understand the meaning of the word and makes it easier for the to remember it. With this method, students will be more motivated to study reading and be capable of developing cognitive skills and motor skills simultaneously.

II. METHODS

A. Research Design

The approach used in this study is a quantitative approach based on philosophy positivism, which is used for research populations or samples certain with the use of instrument research. The research data were used in the form of numbers and analysis statistics, the so-called quantitative method.

The type of research used is study pre-experiment or pre-experimental research, namely, design study experiments that only use one class, that is, a class experiment without group control (comparison). Sample subjects chosen purposively without randomization

The design used in study This is "One Group Pretest-Posttest Design." With this design model, the result treatment can be determined more accurately because it can be compared to the condition before the given treatment. In this design, skills read by beginner students were measured before and after treatment in the form of a picture word puzzle game. Research design: This study is depicted as follows:

Table 1. Research Design

Before Treatment (Pretest)	Treatment (X)	After Treatment (Posttest)
T1	X	T2

T1 = Pretest score (before given treatment)

T2 = Posttest value (after given treatment)

X = Treatment given (use picture word puzzle game)

B. Population

Population is overall object research used as data sources and represents characteristics certain in something research ." Population in study This is all over student Class II of SDN 13 Bilah Barat Regency Labuhan Batu in the year 2025-2026 academic year.

Withdrawal sample in study This technique uses purposive sampling. Sugiyono (2019) states that purposive sampling is a technique to determine a sample with certain considerations. Election of a group subject in purposive sampling is based on characteristic features that are relevant to the population that has been determined previously (Sugiyono, 2019).

Based on these criteria, the sample in this study was student Class II of SDN 13, Bilah Barat Regency Labuhan Batu. Election class II as a sample was conducted because in class, it was found that the skills of beginner students still need improvement. The results show that many students have not yet reached the Criteria The minimum completion score (KKM) set is 70.

C. Operational Design Variables

Variables study is all something determined by researchers For studied so that obtained information that can used in withdrawal conclusion.

Based on this understanding, variable studies can be defined as attributes, properties, or marks from individuals, objects, or activities that have variation specific and determined by researchers. In this study, there were two types of variable:

1. Variables free (X) use a picture-word puzzle game. Game: This is a tool that is educationally designed to increase the skills of beginner students by arranging words based on available images.
2. The variables bound (Y) are the skills of beginner students. Skills read the intended beginning in study, which covers the ability of students to recognize, name, and understand simple words based on available images in a picture word puzzle game.

D. Instruments Study

Instrument study is a tool or medium used to measure the influence between one variable and other variables. In this study, the instrument used included the Learning Outcome Test; Test results consisted of a pretest and posttest.

Pretest given before implementation picture word puzzle game For know ability beginning student in read beginning.

A Posttest was conducted after the students had learned the method of picture word puzzle game use to measure improvement skills. Test This question matches words with an appropriate image. Observation: Observation sheet used to observe activity students during ongoing learning. Observation: This covers the involvement of students in using picture word puzzle games as well as how they respond to method learning.

E. Data Analysis Technique

Descriptive and inferential statistics will be used to analyze the data obtained from the results. The data collected in the form of pretest scores and posttest scores later compared. Compare second mark the with submit question whether There is difference between value obtained between pretest score with mark Post test.

Testing difference marks only done to average second mark only, and for needs that used a technique called the t-test.

III. RESULTS AND DISCUSSION

A. Research Result

SDN 13 Bilah Barat, with NPSN 10205815, is the foundation of the country, located in Dusun Purba Wake Up, Village Cliff Linggahara, District West Blade, Regency Labuhan Batu, North Sumatra, with postal code 21451. This school was established on October 29, 2018, based on the Decree of Establishment and Permit Operational Number 18 of 2018, and is under the shade of the Central Government. It is located in a rural area, providing an atmosphere of quiet and beautiful learning for student. To obtain more detailed information about facilities, environment school, conditions of students and teachers, as well as characteristics of student class II, required observation direct to school, interview with party school, and examination document school. Data regarding the number of students, teachers, and facilities in schools can be accessed through the Dapodik Ministry of Education and Culture. Using valid data from source officials such as Dapodik, BAN-PDM, Zekolah, and Education Master Data Reference, description of SDN 13 Bilah Barat Dalam thesis. This can account for its accuracy.

Study This was implemented at SDN 13 Bilah Barat with a population of as many as 22 students taken from class II in the year 2025/2026. Based on the calculation results, the obtained average value of the results study the pretest that follows learning using picture word puzzle game is 51.30 with variants of 69,719 and standard deviation of 8.34. The following are the analysis statistics classes:

Table 2. Statistics of Pretest Learning Outcomes of Grade II Students

Information	Pre-Experiment
N Valid	22
Mean	51.30
Median	54.54
Mode	60
Standard Deviation	8.34
Variance	69,719
Range	23.64
Minimum	40
Maximum	63.64
Sum	1179.96

Based on the results of the data analysis, the average result of student Class II shows a minimum score of 40 and a maximum score of 63.64. Learning outcomes were grouped into five categories, as shown in table following:

Table 3. Distribution and Frequency Pretest Learning Outcome Category

No	Value Interval	Category	Frequency	Percentage
1	0-40	Very Low	5	20.8%
2	45-55	Low	10	41.7%
3	60-69	Currently	8	33.3%
4	70-80	Tall	1	4.1%
5	81-100	Very high	0	0%
Amount			24	100%

Based on the above table, it can be concluded that the level results for Study student class II before the given treatment were classified as low. This was proven with five students (20.8%) in the very low category and 10 students (41.7%) in the high category. Overall, the pretest results show that only one student who scored the highest, namely 70.

Based on the calculation results, the obtained average value of results posttest learning after students follow learning using the picture word puzzle game is 89.88, with variants of 31.21 and standard deviation of 5.58. The following are the analysis statistics classes:

Table 4. Statistics of Posttest Learning Outcomes of Grade II Students

Information	Post Experiment
N Valid	22
Mean	89.88
Median	90.91
Mode	90.91
Standard Deviation	5.58
Variance	31,215
Range	18.18
Minimum	70.82
Maximum	100
Sum	2067.27

Based on the results of the data analysis, the average results of student class II experienced improvement with a minimum value of 70 and a maximum value of 100. When compared with pre-test scores, there were significant improvements in beginner reading skill. The following are the distribution and frequency results of posttest learning:

Table 5. Distribution and Frequency Posttest Learning Outcome Category

No	Value Interval	Category	Frequency	Percentage
1	0-40	Very Low	0	0%
2	45-55	Low	2	8.3%
3	60-69	Currently	0	0%
4	70-80	Tall	1	4.1%
5	81-100	Very high	21	87.5%
Amount			24	100%

The posttest results showed that the majority of students (87.5%) were in the very high category, while only 8.3% were still in the low category. This proves that using the picture word puzzle game significantly increases the skills of beginner student class II.

Before hypothesis testing was carried out, prerequisite tests were carried out, including a normality test and homogeneity test variance.

Normality test: For see is the result data, the student was normally distributed. The analysis was performed using with chi-square (χ^2) method at a significance level of 5% and degree of freedom (df) = 21. The results of the normality test are presented in table following:

Table 6. Normality Test Results

Sample	χ^2 Count	χ^2 Table	Information
Action Class	0.847	1,720	Normal

Based on the analysis of the results, because the calculated $\chi^2 < \chi^2$ table, H_0 is accepted, which means that the data results are normally distributed. This result was also strengthened by a normality test using SPSS.

Table 7. Recapitulation of Normality Test Results with SPSS

Normality Test	Kolmogorov-Smirnov	Shapiro-Wilk
Statistics	0.129	0.941
df	22	22
Sig.	0.200	0.210

Because of the value significance of > 0.05 , the data came from a normally distributed population.

Homogeneity test of variance was performed using the F-test. The results are displayed in the following table.

Table 8. Summary of Homogeneity Test Results

Levene Statistics	df1	df2	Sig.	
Based on Mean	0.815	2	20	0.458
Based on Median	0.327	2	20	0.725

Based on the results, we can conclude that using a picture word puzzle game significantly increases the skills of beginner student Class II at SDN 13 Bilah Barat. The study shows significant improvement from pretest to posttest, so that this media is effectively used in learning read beginning.

Learning with the method picture word puzzle game proved effective in increasing skills in beginner student Class II of SDN 13 Bilah Barat.

Table 9. Summary of Calculation Results

Calculation	Results
Mean difference (Md)	30.0
Sum of squares of deviations $\frac{\sum X^2 d}{N(N-1)}$	19,800
t-count	4.58
t-table ($\alpha = 0.05$, $df = 21$)	2.08
Decision	H_0 is rejected, the method is effective

B. Discussion

Learning to read beginning is a crucial stage in the development of skills literacy in students at the school level. In the research this, use picture word puzzle game has implemented as a purposeful learning medium For increase skills read beginning student Class II of SDN 13 Bilah Barat Regency Labuhan Batu year 2025-2026 learning. Research results show that there is significant improvement in student ability after treatment in the form of learning with picture word puzzle game media. This is proven by an improvement in the average score of results from the pre-test to the posttest (Setiawan & Yanuarto, 2025).

Based on the pre-test results, the average value obtained for student was 77.47. After receiving treatment with the picture word puzzle game, post-test results showed significant improvement with an average score of 89.88. This shows that the game media used in the learning process has a positive influence on improving the skills of beginner students. In addition, data analysis using the t-test shows that the t-value is larger than the t-table at a significance level of 0.05, which means there is a significant difference between the pre-test and post-test results. Thus, the hypothesis that using a picture word puzzle game is significantly influential on the skills of beginner students is accepted (Wahyudi & Kusumawardani, 2024).

The picture word puzzle game gives students fun and interesting learning, so that they are more motivated to recognize letters, words, and syllables. Method This is in line with the theory put forward by Puspitasari et al. (2025), who state that read beginning is stage beginning in learning reading the given to child as base For lesson next. This approach helps students understand the connection between the pictures and words they read, thereby increasing their understanding and recognition vocabulary they (Puspitasari et al., 2025).

Further, Weber's (2025) theory confirms that reading is an activity involving speaking ability as well as biological and psychological factors that are influenced by the environment. In matter, of fact this picture word puzzle game provides a visual stimulus that can help students more easily understand draft reading. Through combination letters and pictures, students can associate words with meaning in a more effective way, which ultimately increases their ability to read them (Weber, 2025).

Rafehi also emphasized that the ability to read the beginning is very influential to the ability to read continue. Therefore, it is very important for teachers to ensure that the methods used in learning read beginning are truly effective so that students can own a strong reading foundation. If the basic read This No Surdy, then the student will experience difficulty in understanding more reading complex at the next level (Rafehi et al., 2025).

From the results of this study, it can be concluded that the implementation of the picture word puzzle game as a learning medium has a significant positive impact on improvement skills in reading beginner student class II. Method This not only increases the number of study students but also creates a learning process that becomes more interesting and enjoyable. Therefore, teachers are advised to adopt and develop method learning-based game use to increase the effectiveness of learning to read beginning.

IV.CONCLUSIONS

Based on the results of research conducted at SDN 13 Bilah Barat on 22 calss II students, we found that the use of a picture word puzzle game in learning to read beginning has a significant impact on improvement results. The pre-test results show that the average value of students before the given treatment is 51.30, with a minimum value of 40 and a maximum of 63.64. From the distribution value, as many as 20.8% of students were in the very low category, 41.7% in the low category, 33.3% in the moderate category, and only 4.1% in the high category. None of the incoming students were in the very high category. After it is done treatment use method picture word puzzle game, posttest results show significant improvement with an average value of 89.88, a minimum value of 70, and a value of maximum 100. The majority of students (87.5%) were in the very high category, 8.3% were still in the low category, and 4.1% were tall. Analysis statistics with the t-test showed that there was a significant difference between the pretest and posttest results. T- value more big than t- table, so that hypothesis null (H_0) is rejected and the hypothesis alternative (H_1) is accepted. This proves that using a picture word puzzle game is effective in increasing beginner students' reading skills.

Overall, this shows that the picture word puzzle game not only increases students' reading skills, but also improves motivation. Method: This creates a learning process that is more interesting, fun, and helpful in understanding the connection between words and pictures.

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"No external funding was received for this study."

Ethical Compliance

All procedures performed in this study involving human participants were in accordance with the ethical standards of the institutional and/or national research committee and with the 1964 Helsinki Declaration and its later amendments or comparable ethical standards.

Data Access Statement

No datasets were generated or analyzed during the current study

Conflict of Interest Declaration

The authors declare that they have no affiliations with or involvement in any organization or entity with any financial interest in the subject matter or materials discussed in this manuscript.

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