

THE EFFECT OF THE PROBLEM-BASED LEARNING MODEL WITH THE PICTURE AND PICTURE APPROACH BASED ON FLASHCARD MEDIA ON LITERACY ABILITY AND THEMATIC LEARNING OUTCOMES OF FIFTH GRADE STUDENTS

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ABSTRACT

Learning is the core of education. The effectiveness of the learning process is greatly determined by the strategies applied. Therefore, this study aims to examine the effect of the PBL (Problem Based Learning) model integrated with the Picture and Picture approach using Flashcard media on the literacy skills and thematic learning outcomes of fifth-grade students at SD Inpres Tamalanrea III Makassar. This research experimental and involved a total of 21 fifth-grade students. Data collection techniques included observation of student and teacher activities, documentation, as well as pre-tests and post-tests. Quantitative data analysis revealed two important findings. First, the implementation of PBL using the Picture and Picture approach based on Flashcards showed an effect on students' literacy skills. This is evidenced by an increase in the average score (from 57.14 to 89.14) and the hypothesis results with Sig. = 0.000. Second, this model also shows an influence on students' thematic learning outcomes, as evidenced by the increase in the average score (from 60.19 to 88.24) with the same hypothesis test result, namely Sig. = 0.000. Overall, this strategy has been proven effective in overcoming learning fatigue and enhancing students' active participation, which is key to improving literacy skills and learning outcomes.

1. INTRODUCTION

Education serves as a crucial means in creating individuals who possess quality and potential in a broad sense. (Yusmaniar et al., 2024). Through education, a person can transition from a state of not knowing to knowing. Education is also a lifelong process, supporting individuals to become independent and responsible in life.

Talking about education cannot be separated from the core activity, which is learning. The effectiveness of the learning process greatly depends on the selection of the appropriate model, approach, and media. In this regard, according to Selvi (2020) the role of educators becomes very crucial and is key to success in the process of education and teaching. Educators are the ones who design the learning plan, carry out the teaching process, and assess learning outcomes. Therefore, it is important to deliver material using various models and media that can facilitate students in absorbing the learning material.

Based on the results of interviews and observations with the fifth-grade teacher on September 18, 2024, at SD Inpres Tamalanrea III Makassar, it was revealed that in the learning process, students are already able to engage in literacy activities such as reading. However, it is important to note that literacy is not just limited to reading, but also understanding the meaning of what is read. Many fifth-grade students still have difficulty understanding the content of their reading, which hinders them from comprehending and conveying the information they receive. The total number of students is 21, and based on the average daily test scores in the IPAS subject, it is known that around 8 students, or 40%, have reached the KKTP, while 13 students, or 60%, have not reached the KKTP score set by the school, which is 75.

This indicates that there are still some students who are not yet fully able to understand the information presented. As a result, they experience difficulties in completing the tasks assigned, which makes them feel frustrated and tend to give up on learning activities, thus their overall learning outcomes decline (are low). The difficulties faced by students in studying the learning material are due to the less-than-optimal use of learning models and the use of learning media that are less engaging. This also becomes a problem that affects the low student learning outcomes. In dealing with this issue, an attractive model and media are needed to make the teaching and learning process more effective. Based on this explanation, the researcher is interested in conducting a study entitled: "The Effect of Problem-Based Learning Model with Picture and Picture Approach Based on Flashcard Visual Media on Literacy Skills and Thematic Learning Outcomes of Fifth Grade Students at SD Inpres Tamalanrea III Makassar."

This research is also in line with previous studies conducted by Ade, (2020) titled "The Effect of Implementing Problem-Based Learning (PBL) Model on Student Activities and Learning Outcomes in Integrated Thematic Learning in Fifth Grade Elementary School." The research approach used in this study is quasi-experimental. Based on the research conducted, it is concluded that the PBL learning model affects student activities and learning outcomes in integrated thematic learning in Fifth Grade Elementary School. This is evidenced by the results of the hypothesis test, which shows a significant effect of the PBL learning model on student learning activities; based on the t-test calculation, a significance score of 0.00 was obtained, which is smaller than the significance level of 0.05 in integrated thematic learning in Fifth Grade Elementary School.

Previous research was used as a reference by the researcher in this study. In previous studies, there were several variables similar to those in this research; however, this study offers novelty compared to earlier studies. The novelty in this research lies in the integration of the problem-based learning model with the picture and picture approach using flashcard media to improve students' literacy skills and learning outcomes.

Sari (2023) stating that the problem-based learning model is a method based on various issues

that require original research, that is, research that requires real solutions to existing problems. PBL is one of the options in developing the quality of learning. PBL is a learning model that begins by introducing issues or problems commonly encountered in real life to students. PBL requires students to take an active role so that they are able to respond to the problems at hand in line with the learning objectives. The implementation of this model consists of five process stages, which are: The first stage is directing students to the existing problems. The second stage is organizing the students. The third stage is guiding the analysis carried out independently or in groups. The fourth stage is optimizing and presenting the results. The fifth stage is identifying and measuring the process as well as the results of problem-solving. (Hotimah, 2020)

according to Katulung et al., (2021) picture and picture is a learning approach that utilizes images as teaching tools. This approach is similar to the example/non-example method, where the images presented to students must be organized logically. The implementation steps are as follows: 1) The teacher explains the competencies to be achieved. 2) Presents the introductory material. 3) The teacher shows images related to the material. 4) The teacher calls students one by one to arrange or organize the images in a logical order. 5) The teacher asks for an explanation regarding the sequence of the images. 6) Based on the explanation or sequence provided, the teacher begins to present the theory or concept corresponding to the competency to be achieved. 7) Conclude with a summary.

Flashcard media is a learning tool in the form of cards of a certain size. On one side of the card, there is an illustration, and on the other side, there is a description of that illustration. (Riadh, 2024). Literacy skills have become a crucial ability that students must master in a practical way during this time of major change, as a key skill to face the peak of digital transformation. According to Lestari et al., (2021) Literacy is an educational process carried out comprehensively to recognize, understand information, interact, and perform calculations using printed materials and writing in various situations. Literacy serves as a cognitive foundation for understanding all learning materials. Students who have good literacy skills can read, analyze, and assess texts or assignment instructions effectively, allowing them to grasp concepts from various subjects. Therefore, high learning outcomes essentially indicate students' success in using their literacy skills to process information and solve problems. Conversely, improvements in learning outcomes will increasingly encourage students to continue studying and reading, thereby strengthening their literacy skills in a continuous positive cycle.

2. METHODS

This study used a quantitative experimental method with the aim of determining the impact of the problem-based learning model with a picture and picture approach based on flashcards on the literacy skills and thematic learning outcomes of fifth-grade students. According to Arifin (2020) the research method that is experimental in nature is an approach used to determine the impact of certain treatments. The research design used is the one-group pretest-posttest design. According to Noviyanti (2023) the one-group pretest-posttest design is a type of study that needs to be considered before and after the treatment is given. The purpose is to obtain a more accurate understanding of the results of the treatment by comparing the condition before the treatment with the condition after the treatment.

In this study, a pretest activity was conducted at the initial meeting to measure the students' initial abilities, where in this activity students were given 5 essay literacy questions and 15 multiple-choice questions to assess their literacy skills and learning outcomes. Then, at the final meeting, a posttest activity was also conducted to measure the students' literacy skills and learning outcomes after the implementation of the problem-based learning model with a picture and picture approach based on visual flashcard media. The implementation of this research was conducted at SD Inpres Tamalanrea III Makassar, located at Jalan Kebahagiaaan Utara 7 No. A/609. The subjects of this study were all fifth-grade students of SD Inpres Tamalanrea III Makassar, consisting of 13 female

students and 8 male students. The data sources in this study include:

1. Observation: Observation is a way to gather information by directly watching situations, events, or actions on location. (Siti 2025)
2. Pretest-posttest questions: The initial test is also often referred to as a pre-test. This test is conducted before the material is taught to determine the extent to which students have mastered the material or content that will be taught. Meanwhile, the final test is usually called a post-test. This test is conducted at the end of learning a subject with the aim of checking how well students understand the material and identifying the main points that have been discussed. (Magdalena *et al.*, 2021)
3. Documentation: Documentation is one of the steps in research to obtain data that will be processed as research material. (Luahambowo, 2020)

The data analysis techniques in this study are divided into two stages, namely descriptive statistical analysis techniques and inferential statistical analysis techniques, which are further divided into: (1) normality test; in this study, the researcher utilized IBM SPSS version 26 to conduct the Shapiro-Wilk test. If the significance value is greater than 0.05, the data is normally distributed, but if the significance value is less than 0.05, the data is not normally distributed. (2) homogeneity test; in this study, the t-test was conducted using Levene's Test in IBM SPSS version 26, with the criteria for testing the equality of variances as follows: if the significance is 0.05, it is considered not homogeneous. (3) hypothesis testing; in this study, the t-test (Independent Sample T-Test) was used to compare the means between two variables, where the variables to be compared are the pretest and posttest.

3. RESULTS AND DISCUSSION

A. Research Results

1. Overview of the implementation of the problem-based learning model with a picture and picture approach based on flashcard visual media

In the implementation of the PBL model using a picture and picture approach with flashcard media, from the first meeting to the last meeting, there was a significant improvement based on observations made by the researcher. A recap of the scores in the implementation of this model can be seen as follows:

Table 3.1 Results of Teacher Activity Observations

	Meeting					
	I	II	III	IV	V	VI
Score obtained / maximum score	<i>Pretest</i>	60/105	70/105	74/105	84/105	<i>Posttest</i>
Percentage (%)		57%	67%	70%	80%	
Qualification		Enough	Good	Good	Good	

Source: Teacher Observation Sheet

Based on the table presented regarding teacher activities in implementing the problem-based learning model with a picture and picture approach using flashcard visual media, it is known that in the first meeting, a pretest was conducted to measure the students' initial understanding. At the beginning of the model's implementation during the second meeting on September 2, 2025, the teacher's observation score was relatively low (57% or a "Fair" qualification) because the teacher had not fully applied the model's syntax and tended to use conventional methods. However, in the third meeting, there was a significant increase to 67% (qualifying as "Good"), indicating that the teacher began to fully understand the implementation flow of the model and became accustomed to using the PBL model with picture and picture based on flashcards. This consistency was maintained in the fourth meeting, where the score remained stable at 70% with a "Good"

qualification. Maturation occurred in the fifth meeting, with the score increasing to 80% (qualifying as "Good"). At this stage, the teacher had successfully passed the adaptation period, managed the learning process well, and was able to create an inclusive learning environment that encouraged active student participation, in line with the expected objectives. The sixth meeting then focused on giving a posttest to measure the overall results of the model's implementation. The improvement in student learning outcomes and engagement from the pretest to the posttest proves that the teacher's structured and adaptive activities in the PBL model with picture and picture based on visual flashcard media successfully resulted in productive and participatory teaching.

Table 3.2 Results of Student Activity Observations

	Meeting					
	I	II	III	IV	V	VI
Score obtained / maximum score	<i>Pretest</i>	70/120	83/120	87/120	99/120	<i>Posttest</i>
Percentage (%)		58%	69%	73%	82%	
Qualification		Enough	Good	Good	Good	

Source: Student Observation Sheet

The table above shows a significant increase after going through the adaptation stage. After taking the pretest in the first meeting, the students' initial response in the second meeting was classified as "Fair" (58%), indicating minimal activity since this was their first experience with the model. However, student engagement quickly improved in the third meeting, where the activity percentage increased to 69% (qualification "Good"). This improvement continued consistently; by the fourth meeting, the activity score reached 73% ("Good"), peaking at the fifth meeting, increasing to 82% ("Good"). This consistent and positive engagement led to better mastery of the material, as evidenced by the posttest results in the sixth meeting. The increased participation and deep understanding of students affirm the success of implementing the problem-based learning model with a picture and picture approach using visual flashcard media in creating an interactive and effective learning environment.



Figure 3.1 Observation Teacher



Figure 3.2 Observation Students

- The effect of the problem-based learning model with a picture and picture approach based on flashcard visual media on literacy skills and thematic learning outcomes of fifth-grade students at SD Inpres Tamalanrea III Makassar

a. Descriptive analysis of literacy skills

Table 3.3 Pretest Scores
Descriptive Statistics

	N	Range	Minimum	Maximum	Sum	Mean	Std. Deviation	Variance
Nilai pretest literasi	21	20	45	65	1169	55,67	6,061	36,733
Valid N (listwise)	21							

Source: IBM SPSS Version 26

The pretest data above regarding students' literacy skills, measured based on 5 essay questions, shows student scores ranging from a minimum of 45 to a maximum of 65, with a range of 20. The average (mean) pretest literacy score obtained by the students is 55.67 with a standard deviation of 6.061, while the variance is 36.733. These pretest results indicate that the initial literacy skills of fifth-grade students still need improvement.

Table 3.4 Categorization of Pretest Mastery

No.	Intervals	Frequency	Percentage (%)	Literacy skills category
1	80-100	0	0%	Tall
2	55-79	12	57,14%	Currently
3	30-54	9	42,86%	Low
4	0-29	0	%	Very Low
Amount			100%	

Based on the results of the pretest data processing regarding the literacy skills of fifth-grade students at SD Inpres Tamalanrea III Makassar, it can be initially concluded that most students' literacy proficiency falls into the lower-middle category. Out of a total of 21 students, 57.14% (12 students) are in the Medium category, while 42.86% (9 students) fall into the Low category. This data indicates that no students are in the Very Low or High categories, suggesting that before the implementation of the learning model, students' literacy skills generally still require improvement and need to focus more on basic comprehension levels.

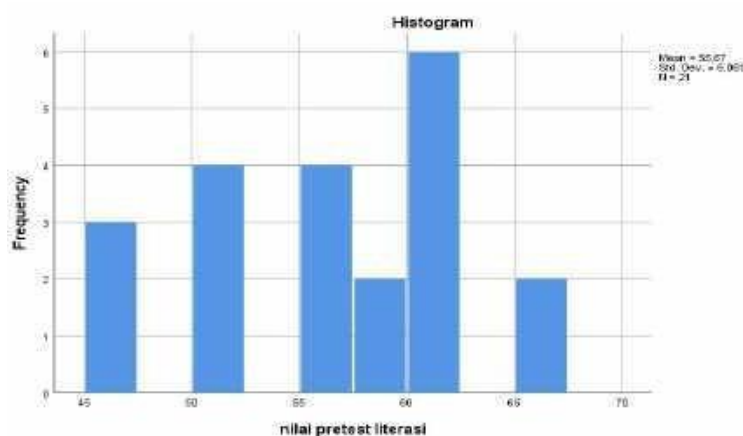


Figure 3.3 Diagram Pretest

Based on the bar graph presented, the distribution of pretest scores for literacy skills of fifth-grade students at SD Inpres Tamalanrea III Makassar shows that student scores are mostly concentrated in the lower to middle range. The lowest score obtained by a student was 45, achieved by 3 students. However, the highest frequency is in the score range of 58-60, where 6 students fall. Nevertheless, no student managed to achieve a score above 65, indicating that the initial literacy comprehension of all students before the learning model intervention was still at a basic to intermediate level, and none reached a high category.

Table 3.5 Posttest Scores
Descriptive Statistics

	N	Range	Minimum	Maximum	Sum	Mean	Std. Deviation	Variance
Posttest literacy scores	21	23	75	98	1841	87,67	6,445	41,533
Valid N (listwise)	21							

Source: IBM SPSS Version 26

The literacy skills pretest was once again conducted on 21 fifth-grade students at SD Inpres Tamalarea III Makassar after the implementation of the PBL model with a picture and picture approach using flashcard media. The purpose of this test was to assess improvements in students' abilities, and the results showed a significant increase compared to the previous initial test. Statistically, the posttest scores ranged from 75 to 98 (a range of 23) with an average (mean) of 87.67 and a standard deviation of 6.445.

Tabel 3.6 Kategorisasi Penguasaan *Posttest*

No.	Interval (Skala100)	Frequency	Percentage (%)	Literacy skills category
1	80-100	17	80,95%	Tall
2	55-79	4	19,05%	Currently
3	30-54	0	0%	Low
4	0-29	0	0%	Very Low
Amount		21	100%	

The results of the posttest data on students' literacy skills showed a significant and comprehensive improvement after the implementation of the PBL model with a Picture and Picture approach based on Flashcards. A total of 21 students participated in the posttest, and none scored in the Very Low (0–29) or Low (30–54) categories. Most students, specifically 80.95% (17 students), achieved a High category with scores ranging from 80–100. Meanwhile, 4 other students (19.05%) were in the Moderate category. This score distribution clearly shows that the majority of students achieved a high level of attainment, proving that the learning model intervention was effective in significantly improving literacy skills compared to the previous pretest results.

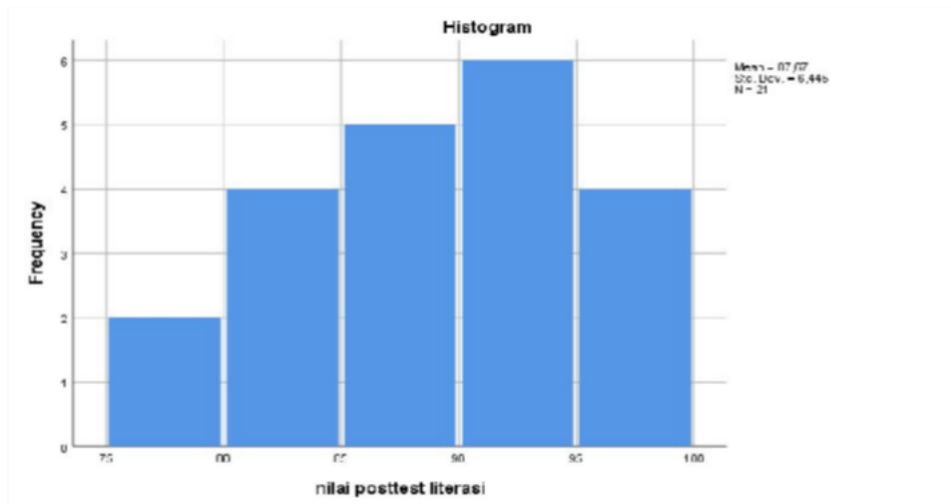


Figure 3.4 Diagram Posttest

After the implementation of the PBL model with Picture and Picture based on Flashcards, the post-test literacy results showed an extraordinary improvement, where most students (around 80%) achieved high scores between 85–95. The score distribution was heavily concentrated at the top, with the highest frequency reaching a score of 90. Only a few students (around 2) scored between 75–80. These results clearly indicate that the applied learning model is effective in developing literacy skills and encouraging active student participation.

b. Inferential analysis of literacy skills

Table 3.7 Normality Test of Literacy Skills

	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
Literacy pretest	,158	21	,181	,940	21	,216
Literacy posttest	,140	21	,200*	,966	21	,640

Source: IBM SPSS Version 26

Based on the results of the normality test for literacy skills data in the pretest and posttest using the Kolmogorov-Smirnov and Shapiro-Wilk methods, it can be concluded that the data distribution is normal. The significance values in both tests for the pretest and posttest data (with Sig. scores ranging from 0.181 to 0.640) were always greater than 0.05. Therefore, the data on students' literacy skill improvements after the implementation of this learning model meet the normality assumption and can be validly used for further analysis with parametric statistical tests (such as the t-test).

Table 3.8 Test of Homogeneity of Literacy Abilities

Test of Homogeneity of Variances

		Levene Statistic	df1	df2	Sig.
Literacy skills	Based on Mean	,008	1	40	,928
	Based on Median	,002	1	40	,965
	Based on Median and with adjusted df	,002	1	39,017	,965
	Based on trimmed mean	,004	1	40	,953

Source: IBM SPSS Version 26

The results of the homogeneity test for the literacy skills pretest and posttest data showed that the variances of both data groups were homogeneous. This is based on a Levene Statistic score of 0.008 with a significance value of 0.928 (and all other methods were also above 0.900). Since all of these significance values are greater than 0.05, the assumption of variance homogeneity is therefore met. Thus, the advanced parametric statistical analysis (such as the t-test) applied in this study is valid and appropriate.

Table 3.9 Hypothesis Test of Literacy Ability

	Paired Samples Test						t	df	Sig. (2-tailed)
	Paired Differences								
	Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference					
			Lower	Upper					
Pair literacy pretest result - 1 literacy posttest result	-32,000	2,000	,436	-32,910	-31,090	-73,321	20	,000	

Source: IBM SPSS Version 26

Based on the results of the t-test above, the mean difference between the pretest and posttest scores is -32.000 with a standard deviation of 2.000 and a t-value of -73.321 with a degree of freedom (df) of 20. The obtained significance value is 0.000. Based on the hypothesis testing criteria, it can be stated that $0.000 < 0.05$, which means H_0 is rejected and H_1 is accepted.

c. Descriptive analysis of learning outcomes

Table 3.10 Pretest Learning Outcomes

Descriptive Statistics								
	N	Range	Minimum	Maximum	Sum	Mean	Std. Deviation	Variance
Pretest learning outcomes	21	30	45	75	1261	60,05	7,526	56,648
Valid N (listwise)	21							

Source: IBM SPSS Version 26

Based on pretest data regarding learning outcomes, the average score of 21 fifth-grade students at SD Inpres Tamalanrea III Makassar was 60.05, with the lowest score being 45 and the highest score being 75. This data clearly indicates that before the model was implemented, the average student learning outcome score was still considered low according to the predetermined assessment criteria, with a fairly large variation in scores among students (standard deviation 7.526).

Table 3.11 Learning Outcome Criteria

No.	Interval (Skala100)	Frequency	Percentage (%)	Learning outcomes category
1	81-100	0	0%	Very Good
2	66-80	4	19%	Good
3	51-65	11	52%	Enough
4	0-50	6	29%	Not Enough
Amount		21	100%	

Before being given treatment, students' initial ability to understand the lesson material (Thematic/Science and Social Studies) was still relatively low, with the majority of students only being in the Sufficient or Poor categories. Out of a total of 21 students, 52% (11 students) were in the Sufficient category and 29% (6 students) were in the Poor category. In fact, not a single student was able to reach the Very Good category (0%). The fact that most students only reached the Sufficient category indicates the need for intervention through a PBL model with picture and picture based on flashcards to improve learning outcomes.

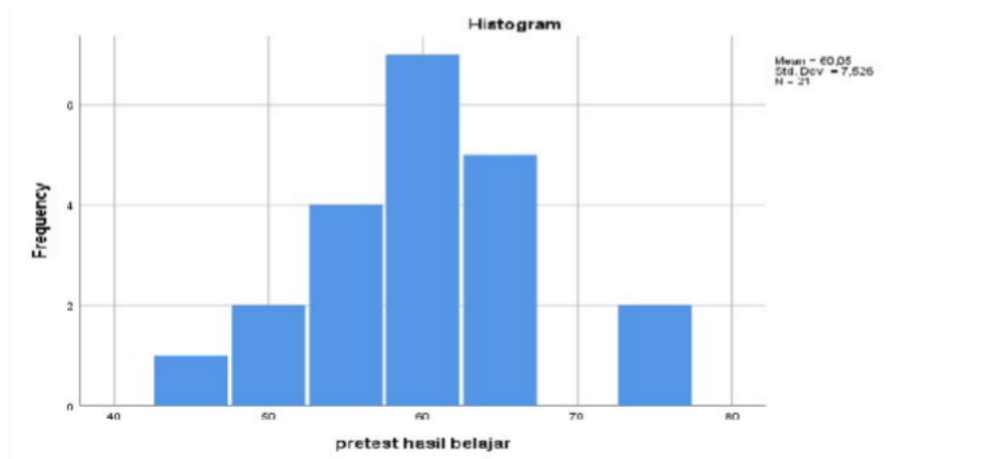


Figure 3.5 Pretest Learning Outcomes Diagram

The pretest result diagram indicates that most students have an initial ability in the Fair category, with the scores of some students concentrated in the range of 55–65 (the highest frequency reaching 6–7 students). Only a small number of students (around 1–2 students) scored below 50 or above 70. This data indicates that students' initial abilities before the implementation of the PBL model with flashcard-based picture and picture generally still remain at a level that requires improvement.

Table 3.12 Posttest Learning Outcomes

Descriptive Statistics

	N	Range	Minimum	Maximum	Sum	Mean	Std. Deviation	Variance
Posttest learning outcomes	21	25	75	100	1850	88,10	7,899	62,390
Valid N (listwise)	21							

Source: IBM SPSS Version 26

The analysis of the posttest data on student learning outcomes indicates that after the implementation of the PBL model with picture and picture based on flashcards, there was a significant improvement. The average (mean) increased to 88.10, with the highest score reaching 100 and the lowest 75. This increase in the average score indicates that most students successfully achieved a Good to Very Good category according to the established assessment criteria, demonstrating the effectiveness of the treatment in enhancing students' academic achievements.

Table 3.13 Learning Outcome Criteria

No.	Interval (Skala100)	Frequency	Percentage (%)	Learning outcomes category
1	81-100	18	85,7%	Very Good
2	66-80	3	14,3%	Good
3	51-65	0	0%	Enough
4	0-50	0	0%	Not Enough
Amount		21	100%	

The data above indicates that after the implementation of the PBL model with Picture and Picture based on flashcards, the majority of students were able to achieve high scores. Out of 21 students who took the test, 85.7% (18 students) fell into the Very Good category (score 81–100), while the remaining 14.3% (3 students) were in the Good category (score 66–80). These results are very satisfying, as no students fell into the Sufficient or Poor categories, indicating that the majority of students have mastered the material very well.

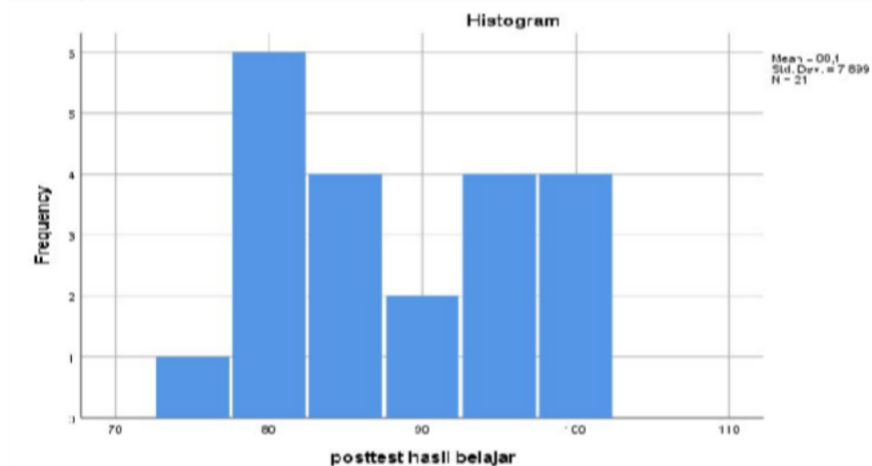


Figure 3.6 Posttest Learning Outcomes Diagram

The post-test results diagram shows that after implementing the PBL-Picture and Picture-Flashcard model, all student scores ranged from 75 to 100, with no students scoring below 75. The highest frequency of scores was concentrated in the 80–85 range (reaching about 6 students), followed by high frequencies in the 85–90 and 90–100 ranges. This distribution of scores, heavily skewed toward the higher ranges, clearly demonstrates the effectiveness of this learning model in helping students achieve a high and consistent level of material mastery.

d. Inferential analysis of learning outcomes

Table 3.14 Normality Test of Learning Outcomes

	Tests of Normality					
	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
Pretest learning outcomes	,083	21	,200*	,986	21	,982
Posttest learning outcomes	,128	21	,200*	,936	21	,184

Source: IBM SPSS Version 26

The Kolmogorov-Smirnov and Shapiro-Wilk tests indicate that the pretest and posttest learning outcome data are normally distributed. The significance values (Sig.) for both the pretest and posttest (ranging from 0.184 to 0.982) are consistently greater than 0.05. Since the normality assumption is met, this data is valid for analysis using advanced parametric statistical tests.

Table 3.15 Test of Homogeneity of Learning Outcomes

Test of Homogeneity of Variances

		Levene Statistic	df1	df2	Sig.
Learning outcomes	Based on Mean	,724	1	40	,400
	Based on Median	,515	1	40	,477
	Based on Median and with adjusted df	,515	1	39,812	,477
	Based on trimmed mean	,729	1	40	,398

Source: IBM SPSS Version 26

Based on the data above, it is known that the pretest and posttest scores from learning outcomes have homogeneous variance. This is evidenced by the Levene Statistic value of 0.724 with a significance (Sig.) of 0.400 (and all other calculation methods also show Sig. values above 0.398). Since all significance scores are greater than the 0.05 threshold, the assumption of variance homogeneity is met. Therefore, the advanced parametric statistical analysis applied in this study is legitimate and valid.

Table 3.16 Hypothesis Test of Learning Outcomes

Paired Samples Test

	Paired Differences							
	Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference		t	df	Sig. (2-tailed)
				Lower	Upper			
Pair 1 Pretest learning outcomes posttest learning outcomes	-28,048	8,738	1,907	-32,025	-24,070	-14,710	20	,000

Source: IBM SPSS Version 26

The t-test results showed a significance value of 0.000, which is much less than 0.05. Because H0 is rejected and H1 is accepted, it can be stated that the implementation of the PBL model with flashcard-based picture and picture has a very significant effect on improving students' thematic learning outcomes. The average score increased by -28.048.

B. Discussion

This study is aimed at measuring the effect of the PBL model with picture and picture based on flashcards on improving literacy skills and thematic learning outcomes of fifth-grade students at SD Inpres Tamalanrea III Makassar. This experimental research was conducted from August 20 to September 30, 2025, using a one-group pretest-posttest design on a single experimental group. This design requires the administration of pretests and posttests to effectively examine the improvement of students' literacy skills and thematic learning outcomes after the intervention.

The PBL model with Picture and Picture based on Flashcards is an innovative strategy implemented in 5 phases. Learning begins with presenting real-world problems as the foundation of knowledge. This approach specifically uses attractive and concrete picture cards (flashcards) to help clarify students' thought processes. The initial phase of implementation includes delivering

learning objectives, followed by problem orientation (through images on flashcards and essential questions), and organizing students into 5 small groups to receive materials and worksheets. The third phase of this model focuses on guiding group investigations, where the teacher directs students to discuss, read texts, and observe picture cards in order to note events and arrange the images logically. The results of this discussion are then processed in the fourth phase, which involves developing and presenting work, where the groups present their findings and the teacher facilitates the discussion. The learning sequence concludes with the fifth phase, which is the analysis and evaluation of the issue- or problem-solving process, including providing feedback, appreciation, and assessment evaluation by the teacher to the students, before summarizing the material as a whole.

This study involved 21 fifth-grade students at SD Inpres Tamalanrea III Makassar. Based on the results of field observations (tests), the PBL-Picture and Picture-Flashcard model that was applied showed successful implementation. Teacher activity increased from a 'Fair' rating (57%) to 'Good' (70%), indicating mastery of the model's syntax. Similarly, student activity rose from 'Fair' (58%) to 'Very Good' (82%), demonstrating that the PBL model combined with visual media successfully enhanced active student participation and prevented boredom during learning activities.

The analysis of the effectiveness of the PBL model with picture and picture based on flashcards shows a significant and substantial impact on both dependent variables. In Literacy Skills, the average score increased by 32.00 points (from 57.14 to 89.14). Meanwhile, in Thematic Learning Outcomes (Science and Social Studies), the average score rose by 28.05 points (from 60.19 to 88.24). This improvement is also demonstrated categorically, with the majority of students (85.7%) moving to the Very Good category for Learning Outcomes. All t-tests showed a significant score of 0.000. These results statistically confirm that the PBL model, which trains problem analysis supported by flashcard visualization, is highly effective in developing literacy skills and students' academic achievement.

The research results show that the implementation of the PBL model with picture and picture based on flashcards has a significant effect on improving literacy skills and thematic learning outcomes of fifth grade students at SD Inpres Tamalanrea III Makassar. This effectiveness occurs due to two main factors: PBL can make science and social studies material relevant through real problem solving, while the use of flashcards through the picture and picture approach greatly helps students in organizing the sequence of steps and understanding lesson concepts visually and concretely.

Student orientation to problems



(Figure 3.5)

Organizing students to study



(Figure3.6)

Investigation guidance

Development and presentation

Analyzing and evaluating

individual/group



(Figure 3.7)

work



(Figure 3.8)

problem-solving process



(Figure 3.9)

4. CONCLUSIONS AND SUGGESTIONS

Referring to the results of data analysis and the discussion on the implementation of the PBL model with picture and picture based on flashcards for fifth-grade students at SD Inpres Tamalanrea III Makassar, two main conclusions are drawn as follows: (1) There is a significant effect on literacy skills. The implementation of the PBL model with a picture and picture approach based on visual flashcard media has a significant impact on the development or improvement of students' literacy skills. This is evidenced by the t-test results showing a significance score of 0.000 (Sig. < 0.05) and a very high increase in the average score (from 57.14 to 89.14). This success is primarily due to the characteristics of the PBL model, which support students to actively analyze, read, and present information from texts or real problems, which directly hones students' literacy skills. (2) There is a significant effect on thematic learning outcomes. The implementation of the PBL model with a picture and picture approach based on visual flashcard media has a significant impact on improving student learning outcomes. This is evidenced by the results of the t-test, which indicated a significant score of 0.000 (Sig. < 0.05) and a substantial increase in the average score (from 60.19 to 88.24). This improvement is supported by the flashcard media and the picture and picture approach, which visualize the procedural concept flow, making it easier for students to understand, remember, and master thematic material (science and social studies).

In relation to the aforementioned conclusion, the following recommendations are suggested: Teachers are encouraged to implement the PBL model integrated with a picture-and-picture approach based on flashcard media continuously as an innovative strategy, and to develop more creative variations of flashcards. Schools need to provide facilities and training support for teachers regarding innovative learning models. Furthermore, future researchers are advised to conduct additional studies using a comparative design (involving a control group) to strengthen validity, as well as to measure other skill aspects such as students' critical thinking or collaboration.

5. LIST OF REFERENCES

- Ade Novianti, Alwen Bentri, A. Z. (2020). PENGARUH PENERAPAN MODEL PROBLEM BASED LEARNING (PBL) TERHADAP AKTIVITAS DAN HASIL BELAJAR SISWA PADA PEMBELAJARAN TEMATIK TERPADU DI KELAS V SEKOLAH DASAR. *Jurnal Basicedu*, 5(5), 194–202.
- Arifin, Z., & Kanan, S. A.-H. B. A. W. (2020). METODOLOGI PENELITIAN PENDIDIKAN EDUCATION RESEARCH METHODOLOGY. *Jurnal Al-Hikmah*, 1, 1–140. <https://doi.org/10.4324/9781315149783>
- Hotimah, H. (2020). Penerapan Metode Pembelajaran Problem Based Learning Dalam Meningkatkan Kemampuan Bercerita Pada Siswa Sekolah Dasar. *Jurnal Edukasi*, 7(3), 5. <https://doi.org/10.19184/jukasi.v7i3.21599>

- Katulung, M., Mendelson Laka, B., & Tahulending, G. (2021). Penerapan Model Picture and Picture Untuk Meningkatkan Hasil Belajar Ips Di Kelas V Sd Katolik Kakaskasen. *Jurnal Pendidikan Dasar Flobamorata*, 2(1), 142–151. <https://doi.org/10.51494/jpdf.v2i1.418>
- Lestari, F. D., Ibrahim, M., Ghufron, S., & Mariati, P. (2021). Pengaruh Budaya Literasi terhadap Hasil Belajar IPA di Sekolah Dasar. *Jurnal Basicedu*, 5(6), 5087–5099. <https://doi.org/10.31004/basicedu.v5i6.1436>
- Luahambowo, F. (2020). PERANAN ORANG TUA DALAM MEMBINA SIKAP (ATTITUDE) ANAK DI DESA HILIGITO KECAMATAN FANAYAMA TAHUN 2020. *CIVIC SOCIETY RESEARCH and EDUCATION: Jurnal Pendidikan Pancasila Dan Kewarganegaraan*, 33(1), 1–12.
- Magdalena, I., Miftah Nurul Annisa, G. R., & Ishaq, A. R. (2021). *KEBERHASILAN EVALUASI PEMBELAJARAN DI SDN BOJONG 04. 3*, 150–165.
- Noviyanti, A. (2023). *PENGARUH METODE STRUKTURAL ANALITIK SINTETIK (SAS) BERBANTUAN MEDIA FLASH CARD TERHADAP KEMAMPUAN MEMBACA PERMULAAN SISWA KELAS I SEKOLAH DASAR Universitas Pendidikan Indonesia | repository.upi.edu | perpustakaan.upi.edu. 2016*, 22–33.
- Riadh Riadh, & Larasati Larasati. (2024). Penggunaan Media Flash Card dalam Pengembangan Kemampuan Bahasa Anak Usia Dini. *Morfologi: Jurnal Ilmu Pendidikan, Bahasa, Sastra Dan Budaya*, 2(4), 167–180. <https://doi.org/10.61132/morfologi.v2i4.815>
- Sari, M., & Rosidah, A. (2023). Implementasi Model Pembelajaran Problem Based Learning (PBL) Terhadap Hasil Belajar IPS SD. *Jurnal Ilmiah Pendidik Indonesia*, 2(1), 8–17. <https://doi.org/10.56916/jipi.v2i1.307>
- Selvi meilasari, Damris M, Up. Y. (2020). KAJIAN MODEL PEMBELAJARAN PROBLEM BASED LEARNING (PBL) DALAM PEMBELAJARAN DI SEKOLAH. *Jurnal Pendidikan Biologi Dan Saisn*, 21(1), 1–9.
- Siti Romdona, Silvia Senja Junista, A. G. (2025). TEKNIK PENGUMPULAN DATA: OBSERVASI, WAWANCARA DAN KUESIONER. *JISOSEPOL: JURNAL ILMU SOSIAL EKONOMI DAN POLITIK*, 3(1), 39–47.
- Yusmaniar, Afni, N., & Alannasir, W. (2024). Penerapan Model Problem Based Learning Untuk Meningkatkan Kemampuan Berpikir Kritis Siswa Kelas Iv Di Sdn 160 Inpres Lemo-Lemo Kab. Maros. *ALENA: Journal of Elementary Education*, 2(1), 27–37. <https://doi.org/10.59638/jee.v2i1.80>