



The Effect of Problem-based Learning Model on the Fourth-Grade Elementary Students' Learning Outcomes

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ABSTRACT

This paper discusses the effect of the problem-based learning model on students' learning outcomes in theme 8 of the area where I live in class IV SD. The study in this paper uses associative quantitative methods. The research population involves 31 fourth-grade students at SD Negeri 065013 Tanjung Sari Medan. The sampling uses a purposive sample and there are 31 students. The results indicate that students' learning outcomes using the problem-based learning model are included in the good category with an average of 78.19 with a correlation test result of 0.977, which means $r_{count} 0.977 \geq r_{table} 0.355$, then H_a is accepted. Therefore, there is a significant effect between the use of the problem-based learning model on students' learning outcomes on the theme of the area where I live in class IV SD Negeri 065013 Tanjung Sari Medan. It can be seen from the results of the T-test where $t_{count} 24.598 \geq t_{table} 2.045$ so that H_a is accepted. As a result, there is a significant positive effect from the use of the problem-based learning model on student's learning outcomes in theme 8 of the area where I live in class IV SD Negeri 065013 Tanjung Sari Medan in the academic year 2022/2023.

Keywords: *students' learning outcomes, problem-based learning model, elementary students*

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INTRODUCTION

According to Law 20 of 2003, Article 1 Paragraph 1, Education is a conscious and planned effort to create a learning atmosphere and learning process so that students actively develop their potential to have religious spiritual strength, self-control, personality, intelligence, noble character, and skills. needed by himself, society, nation and state. More specifically, basic education lays the foundation for high intelligence, knowledge, character and skills to live independently and participate in further education (BSNP, 2006:4).

One of the efforts aimed at developing students' potential is learning. According to Gleder (in Aunurahman, 2012:97), learning is the acquisition of knowledge. In changing one's behavior or personality based on practice or experience. Creating a creative learning system. Creativity in learning has a significant influence on learning success. Creative learning emphasizes more on the methods or approaches used in the learning process, resulting in creative learning.

Efforts to improve the quality of teaching include changing the concept of education, especially in Elementary Schools (SD/MI), from teacher-centered learning to student-centered learning, regulated by reducing the lecture method and student activities in Study. This has an impact on student learning outcomes. According to Silaban (2019: 109) "Learning results have a very important position and cannot be separated from the learning process. With learning outcomes, teachers can find out whether students have achieved the Minimum Completeness Criteria (KKM) that have been set. Learning outcomes are very important because they determine how far students can capture, understand, own the material they understand. Learning outcomes are also efforts that students want to achieve so that these learning outcomes can be used as achievements and motivation.

With the application of thematic learning it will build the competence of students, in thematic learning it places more emphasis on the involvement of students in the learning process actively in the learning process, so that students can gain hands-on experience who are trained to be able to discover for themselves the various knowledge they are learning. Thematic learning emphasizes more on the application of the concept of learning while doing activities (learning by doing). Therefore, teachers need to package or design learning experiences that will affect the meaningfulness of student learning. In addition, the application of thematic learning in elementary schools will greatly help students, because according to the stage of development students still see things as a whole (holistic). With the application of thematic learning, it is hoped that the learning that takes place will become student-centered learning (Trianto,2010:90).

Based on the results of observations made by researchers in class 4 SD Negeri 065013 Tanjung Sari Medan, that the learning conducted by teachers tends to use conventional learning models in the sense of lecturing. Condition like this makes the learning process passive because students only listen to what is explained by the teacher without playing a more active role. So what happens is that students become afraid when expressing opinions and answering questions given by the teacher. Apart from that, it shows that student learning outcomes during the learning process are relatively low. This study aims to determine the effect of using the Problem Based Learning learning model on student learning outcomes in theme 8 of the area where I live in class IV SD.

LITERATURE REVIEW

Learning model

The model is a conceptual framework that is used as a guide in using an activity. The model can also be understood as a picture of the real situation. Based on this understanding, the learning model can also be understood as a conceptual framework that describes systematic and planned procedures in organizing the learning process of students so that learning objectives can be achieved effectively. As stated by Ngalmun (2022: 25) The learning model is a conceptual framework that describes systematic (regular) procedures in organizing learning activities (experiences) to achieve learning goals (learning competencies). In other words, the learning model is the design of learning activities so that the implementation of the teaching and learning process can run well, is interesting, easy to understand, and is in a logical sequence.

The learning model is a design in an ongoing learning process where learning is carried out regularly according to Gustafson (Punaji, 2020: 50) states that a learning model is a simple representation of the forms, processes, and functions of physical phenomena or more complex ideas. complex. These models serve to simplify reality because often the reality is too complex to be used to visualize, direct, and manage processes to produce quality processes.

Active learning creates fun learning where active learning is inseparable from the design that the teacher makes in making the learning model. According to Trianto (2014: 23) The learning model is a plan or a pattern that is used as a guide in planning classroom learning or learning in tutorials and for determining learning tools including books, films, computers, and others. The use of various learning models makes students not bored in following the learning so that it will lead to active learning activities.

According to Asyafah, Abas (2019:20) The learning model is an important component in learning. There are several reasons for the importance of developing a learning model, namely: a) an effective learning model, b) a learning model can provide useful information, c) a variety of learning models can give students a passion for learning, d) developing a variety of learning models is very urgent because there are differences in characteristics, e) the ability of lecturers/teachers, f) demands for lecturers/teachers

Professionals are motivated and passionate. Based on the opinions of the experts above, the researcher concluded that the learning model is a design where the design is very important so that it can determine the concept of fun and quality learning. What is meant by fun and quality is learning that is not long-winded and directed so as to create quality learning. The intended concept is the pattern prepared by the teacher as a guide for teaching teachers.

Problem Based Learning Model

In the process of teaching and learning teachers always face problems in every learning student. Therefore this learning model can train and develop the ability to solve problems that are oriented to authentic problems from students' actual lives. According to Finkle and Torp (Shoimin, 2014: 129) states that problem-based learning (problem based learning) is the development of a curriculum and teaching system that is developed simultaneously problem-solving strategies and the basics of knowledge and skills by placing students in an active role as problem solvers. daily problems that are not well structured.

When learning takes place activities go well, it must be based on the goals and models that the teacher uses. Which is where the model is used as a reference in these learning activities. As stated by Arends (Trianto, 2014: 64) Problem-based teaching is a learning approach in which students work on authentic problems with the intention of constructing their own knowledge, developing inquiry and high-level skills, developing independence and self-confidence. Likewise, according to Nugraha, Widdy Sukma (2018: 118) "The problem-based learning model is a learning model that provides authentic experiences so that it can encourage students to learn actively, and construct knowledge independently".

Based on the opinions of the experts above, the researcher concludes that problem-based learning is a learning model in which the learning process is coupled with an emphasis on problem-solving processes that can be faced scientifically in learning activities that make students more thinking and active. This learning model does not expect to fully listen to statements or explanations from the teacher, take notes, then memorize learning material. However, through this problem-based learning model students will think more, interact, conclude and express their opinions directly.

According to Amir (2015: 24-25) the steps of the problem-based learning process are as follows: following : Clarifying terms and concepts that are not clear, namely ensuring that each member understands the various terms and concepts in the problem, Formulate the problem, The phenomenon in the problem demands an explanation of what relationships exist between the phenomena, Analyze the problem, Members issue knowledge regarding what members already have about the problem, Organize your ideas systematically and analyze them. Analysis is an attempt to sort something into the parts that make it up, Formulate learning objectives, The group can formulate learning objectives because the group already knows which knowledge is still lacking, and which is still unclear, Looking for additional information from other sources (outside of group discussions) At this point the group already knows information that they don't have, and already have learning objectives, Synthesize (combine) test new information and create reports for the class, From individual/sub-group reports, presented in front of other group members, the group will get new information. In the opinion of the experts above, the researcher can conclude that the steps for problem based learning are: Clarify terms and concepts that are not clear. Namely ensuring that each member understands the various terms and concepts used are in trouble, Formulating the problem of the phenomena that exist in the problem requires an explanation of the relationships what happened between the phenomena, Analyze the problem, Members issue knowledge related to what members already have about problem, Organize your ideas systematically analyze them deeply. Analysis is an attempt to sort something into its parts shape it, Formulating group learning objectives can formulate learning objectives because the group already knows which knowledge is still lacking, and which is still unclear, Looking for additional information from other sources (outside group discussions). At this point, the group already knows the information they don't have, and already has it learning objectives, Synthesize (combine) test new information and create reports for the class, From individual/sub-group reports, presented before other group members, the group will get new information.

According to Shoimin (2014: 132) the advantages of the Problem Based Learning Model are as follows: Students are encouraged to have the ability to solve problems in real situations, Students have the ability to build their own knowledge through learning activities, Learning focuses on problems so that material that has nothing to do with students does not need to be studied, There is scientific activity through group work, Students are used to using knowledge sources, both in the library, the internet, interviews, and observations, Students have the ability to assess their own learning progress, Students have the ability to carry

out scientific communication in discussion activities or presentations of their work, Individual student learning difficulties can be overcome through group work in the form of peer teaching.

The disadvantages of the Problem Based Learning model are as follows: The teaching and learning process cannot be applied to every subject matter, there is a part of the teacher playing an active role in presenting the material. learning process. Teaching is more suitable for learning that demands certain abilities related to problem solving, In a class that has a high level of student diversity there will be difficulties in dividing tasks.

Learning outcomes

According to Silaban, et al (2021: 1364) Learning outcomes are a reflection of the learning effort, the better the learning effort, the better the results achieved. The way students learn can indeed be packaged efficiently, this is because the time used is sufficient. Independent learning is also very important because it can produce someone who participates.

Based on some of the opinions expressed by the experts above, the researcher can conclude that learning outcomes are a reference for students to find out how significant knowledge development is in students. Learning outcomes are not only mastery of subject theory concepts, but also mastery of habits, perceptions, pleasures, interests, talents, social adjustment, types of skills, ideals, desires, and expectations. That is what is ultimately evaluated by students related to their own development

METHOD

Place and time of research

This research was conducted at SD Negeri 065013 Tanjung Sari, Medan Selayang District, Medan City, North Sumatra Province. This research was conducted in May 2023.

Population and Sample

Sugiyono (2018: 145) argues that "in qualitative research, the sample is part of the number and characteristics possessed by the population". In this study, this study used a sampling technique from the nonprobability sampling group with a sampling technique. Total sample is a sampling technique when all members of the population are used as samples. Another term for a total sample is a census, where all members of the population are sampled by Sugiyono (2019:67). So the sample in this research was class IV SD Negeri 065013, totaling 31 people.

Research methods

The research method is an activity process in the form of data collection, analysis and providing interpretation related to the research objectives. The experimental research method is a quantitative method, used when researchers want to conduct experiments for independent variables, treatment or treatment of variables, results or output under controlled conditions.

The research method is a scientific way to obtain data with specific purposes and uses (Sugiyono, 2018: 13). Judging from the problem, this type of research is quantitative with descriptive analytic research methods with the aim of analyzing sample data and the results are applied to the population. The design of this study was used to determine the effect of the variable learning model problem based learning (X) on student learning outcomes in class IV (Y). In research it is inseparable from the research method because from the research method it can be seen what the researcher's goals are.

Data collection technique

Data collection techniques used in this study were tests, questionnaires and documentation. The test is given by giving pre-test and post-test questions to respondents. The pre-test was given before the treatment while the post-test was given after giving the treatment.

Most studies use questionnaires as the method chosen to collect data (Sugiyono 2018: 142). Using a

questionnaire is an efficient data collection technique when the researcher knows exactly the variable to be measured and knows what to expect from the respondent. This questionnaire was given to students to obtain information about students' responses to the Problem Based Learning model.

Tests are instruments or tools to collect data about the ability of research subjects by means of measurement, for example to measure the ability of research subjects to master certain subject matter, written tests are used about the subject matter, to measure the ability of research subjects to use certain tools (Sanjaya, 2014: 251).

In addition to using test kits, this researcher uses documentation techniques. This documentation study is a data collection technique by collecting and analyzing written and unwritten documents. In carrying out documentation studies, researchers investigate written objects such as books, magazines, documents, regulations, meeting minutes, diaries, and so on (Arikunto, 2018: 201). Related to the research problem in the form of documentation is SD Negeri 065013 Tanjung Sari Medan.

Validity test

The research instrument can be said to be valid if there is a similarity between the data collected and the data that actually occurs in the object under study. Before the test is used, it must be tested first, tested for validity so that the data can be accounted for. Test the validity of the research instrument using product moment correlation. In this way, the correlation index is calculated by the formula (Arikunto, 2018: 213)

$$r_{xy} = \frac{N\sum XY - (\sum X)(\sum Y)}{\sqrt{\{(N\sum X^2 - (\sum X)^2)(N\sum Y^2 - (\sum Y)^2)\}}}$$

Information:

rx_y = Correlation coefficient

X = Number of items

Y = Total score

∑X = Total score X

∑Y = Sum of Y scores

N = Number of respondents

To determine whether the instrument is valid or not, SPSS program assistance is needed as follows:

- If $r_{count} \geq r_{table}$ with a significant level of 0.05, then the instrument is said to be valid.

If $r_{count} \leq r_{table}$ with a significant level of 0.05, then the instrument is said to be valid.

Reliability Test

Reliability is an instrument that can be trusted enough to be used as a data collection tool because the instrument is good. A good instrument will not be tendentious in directing respondents to choose certain answers. Reliable instruments will produce reliable data as well.

$$r_{11} = \left(\frac{k}{k-1} \right) \left(1 - \frac{\sum \sigma b^2}{\sigma^2 t} \right)$$

Information:

r_{11} = Instrument reliability

∑σb² = Number of item variances

σ²t = Total variance

k = The number of questions or the number of questions.

The formula to find the variance of the items is used the formula:

$$\sigma b^2 = \frac{\sum x^2 - \frac{(\sum X)^2}{N}}{N} \dots \dots \dots \quad (\text{Arikunto, 2021 : 227})$$

Information:

- N = Lots of students
- σb^2 = Grain variance
- X = Score each item

Normality test

Before testing the hypothesis, the normality of the data is tested first. The normality test is to test whether or not the distribution of the data to be analyzed is normal. The normality test was carried out on the variables studied, namely the independent variable (X) and the dependent variable (Y). The formula used to test the normality of the data is the Chi Square formula (X2):

$$X^2 = \sum_{i=1}^k \frac{(f_o - f_h)^2}{f_h} \dots \dots \dots (\text{Sugiyono 2018:316})$$

Information:

X^2 = Chi Square

F_o = Observed frequency

F_h = Expected frequency

If $L_{count} < L_{table}$ then the sample is not normally distributed

If $L_{count} > L_{table}$ then the sample is normally distributed

Correlation Test

To find out whether or not there is an influence of the independent variable (X) on the dependent variable (Y). Researchers use the product moment correlation formula as follows:

$$r_{xy} = \frac{N\sum XY - (\sum X)(\sum Y)}{\sqrt{\{(N\sum X^2 - (\sum X)^2)(N\sum Y^2 - (\sum Y)^2)\}}}$$

Information:

r_{xy} = Product moment correlation coefficient between variables x and y

N = Number of cases (Number of respondents / number of students taking the test)

$\sum X$ = Item score

$\sum Y$ = Total score of all students

$\sum XY$ = Number of multiplication results between scores "X" and scores "Y"

Table 1. Interpretation of the Correlation Test

Interval Koefisien	Relationship Level
0.00-0.199	Very low
0.20-0.399	Low
0.40-0.599	Currently
0.60-0.799	Strong
0.80-1.000	Very strong

Hypothesis testing

To find out whether X has a significant (meaningful) relationship to variable Y, it is done by testing the hypothesis using the t-test as follows:

$$t = \frac{r\sqrt{n-2}}{\sqrt{1-r^2}} \quad (\text{Sugiyono, 2018})$$

Keterangan:

r = Correlation coefficient

n = Sample

The hypothesis is accepted, if $t_{hitung} \geq t_{tabel}$ vice versa, if $t_{hitung} \leq t_{tabel}$ then the hypothesis is rejected. With an error rate of 5%.

RESULTS AND DISCUSSION

Class IV Pre-Test Results

Based on the data obtained from the material for the 8 sub-themes of the area where I live 1, the environment where I live, learning 1 above, it is known that the pretest score in the experimental class has an average score of 55.31 while the KKM is 70. It can be concluded that the number of students who complete which did not complete as many as 25 people. From the table it can be found the average, ideal mean and standard deviation, namely: Average (Mean) = 55,51, Ideal Means (Mi) = 57,5

1. Standard Deviation (Sdi) = 10,16.

Table 2. Frequency Distribution of Pre Test Data

X	F	FX	X-X	X ²	FX ²
27	3	81	28,51	729	6561
31	1	31	24,51	961	961
35	1	35	20,51	1225	1225
40	1	40	15,51	1600	1600
43	1	43	12,51	1849	1849
45	1	45	10,51	2025	2025
50	4	200	5,51	2500	40000
53	4	212	2,51	2809	44944
54	1	54	1,51	2916	2916
57	1	57	-1,49	3249	3249
60	1	60	-4,49	3600	3600
62	4	248	-6,49	3844	61504
69	2	138	-13,49	4761	19044
73	1	73	-17,49	5329	5329
77	3	231	-21,49	5929	53361
85	1	85	-29,49	7225	7225
88	1	88	-32,49	7744	7744
Total	∑F=31	∑FX=1721		∑X²=58295	∑FX²=263137

Based on the table diagram above, it can be concluded that the pretest value of the class IVB obtained the highest value of 88 and the lowest value of 27 obtained an average (mean) of 55.51 and a standard deviation of 10.16 with a percentage the highest of 32.25%. By looking at this condition, the researcher tried to follow up by giving a treatment by giving the Problem Based Learning learning model in that class.

Class IV Post Test Results

At the end of the lesson, after all the subject matter was taught, the researcher then gave a posttest which aims to determine the level of success of the actions that have been given.

Table 3. Frequency Distribution

X	F	F _x	X-X	X ²	F _x ²
58	1	58	-20,2	3364	3364
61	1	61	-17,21	3721	3721
64	2	128	-14,22	4096	8192
68	1	68	-10,23	4624	4624
71	2	142	-7,24	5041	10082
74	3	222	-4,25	5476	16428
77	5	385	-1,26	5929	29645
81	6	486	2,73	6561	39366
84	3	252	5,72	7056	21168
85	1	85	6,71	7225	7225
87	2	174	8,7	7569	15138
90	3	270	11,69	8100	24300
93	1	93	14,68	8649	8649
Total	∑F=31	∑FX=2424		∑X²=77411	∑FX²=191902

From the table it can be found the average, ideal mean and standard deviation, namely: A verage (Mean) 78,19, Mean Ideal (Mi), Standart Deviaton (Sdi) 5,83.

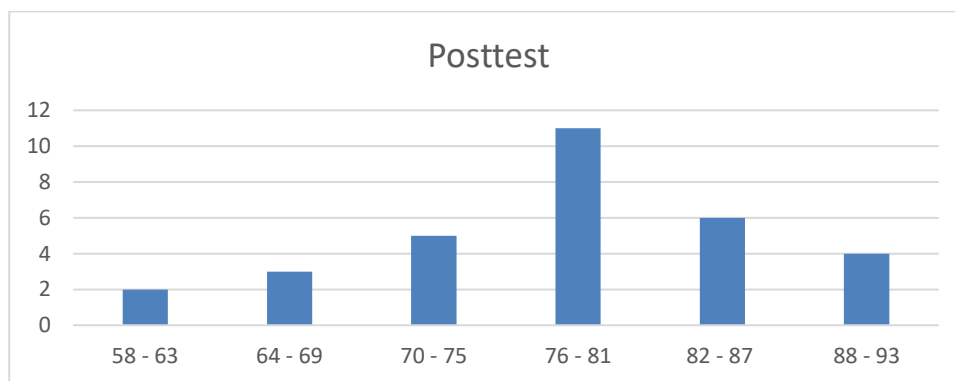


Figure 1. Histogram Distribution of Post Test Value Frequency

Based on the data above, the frequency distribution of posttest grade IVB scores obtained the highest score was 93 and the lowest score was 58, obtained an average (mean) of 78.19 and a standard deviation of 5.83. With the highest percentage of 35.48% and the lowest percentage of 6.45%.

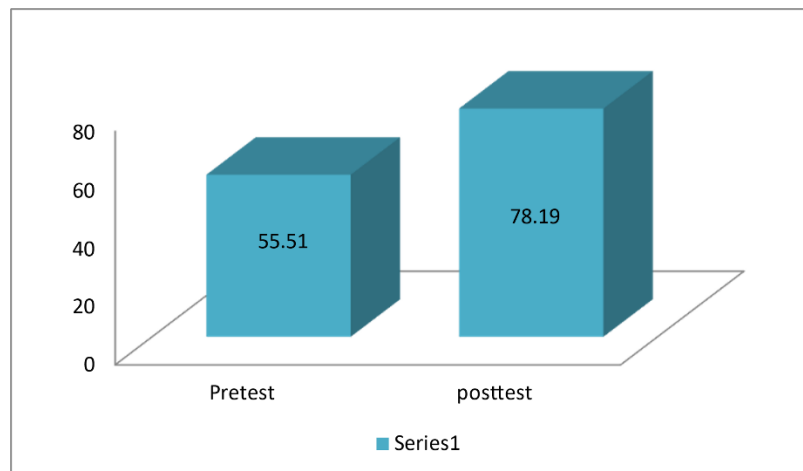


Figure 2. Diagram of Average Pre Test and Post Test

From Figure 4.4 above it can be seen that the grade IV students' learning outcomes before being given treatment using the problem based learning model, the average value was 55.51 whereas after being given the learning treatment using the problem based learning model students got an average score of 78. 19. So it can be concluded that there was an increase in the average value after being given treatment to students.

Table 4. Assessment criteria

Assesment Criteria	Information
80-100	Very well
70-79	Good
60-69	Enough
50-59	Not enough
0-59	Fail

Based on table 4.5 it can be concluded that the average value obtained during the pretest was 55.51 in the less category. While the posttest average value after the treatment was obtained a value of 78.19 in the good category.

Questionnaire Results Model Problem Based Learning

At the end of the study the researcher gave a questionnaire to students, this aimed to find out the level of success and how the students were after being given learning using the problem-based learning model on theme 8 the area where I live sub-theme 1 the environment where I live.

Table 5. Frequency Distribution of Questionnaire Results

X	F	F _x	X-X _X	X ²	Fx ²
55	1	55	-13,9	3025	3025
56	1	56	-12,9	3136	3136
60	2	120	-8,9	3600	7200
61	1	61	-7,9	3721	3721
62	2	124	-6,9	3844	7688
63	1	63	-5,9	3969	3969
65	2	130	-3,9	4225	8450
67	4	268	-1,9	4489	17956
68	2	136	-0,9	4624	9248
70	3	210	1,1	4900	14700
72	1	72	3,1	5184	5184

73	2	146	4,1	5329	10658
74	1	74	5,1	5476	5476
75	2	150	6,1	5625	11250
76	1	76	7,1	5776	5776
77	2	154	8,1	5929	11858
78	3	234	9,1	6084	18252
Total	$\Sigma F=31$	$\Sigma FX=2129$		$\Sigma X^2=78936$	$\Sigma FX^2=147547$

From the table it can be found the average, ideal mean and standard deviation: Average (Mean) = 68,67, Mean ideal (Mi) = 66,5, Standard Deviation (Sdi) SDi = 3,83. The data presentation distribution table regarding the results of the class IV student questionnaire can be seen below.

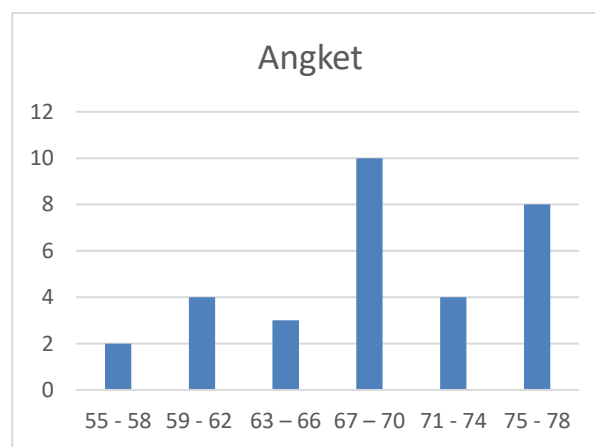


Figure 3. Histogram of the Frequency Distribution of Questionnaire Values

Normality test

After calculating using SPSS Version 22.0 the normality test is done by using the Kolmogorov-Smirnov test, it is known that the significance value is 0.05%.

Table 6. Normality Test

	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
	Statistic	Df	Sig.	Statistic	Df	Sig.
Problem Based Learning	.140	31	.124	.960	31	.285

Based on the normality test with the Kolmogorov-Smirnov Test, a significant value was obtained of $0.124 \geq 0.159$, it can be concluded that the data is normally distributed. The significance level value used by the researcher is a significance level of 5% or 0.05. Based on the liliefors test (Kolmogorov Smirnov) a significance of 0.285 was obtained so that it was concluded that $0.285 \geq 0.05$, class IV data were normally distributed.

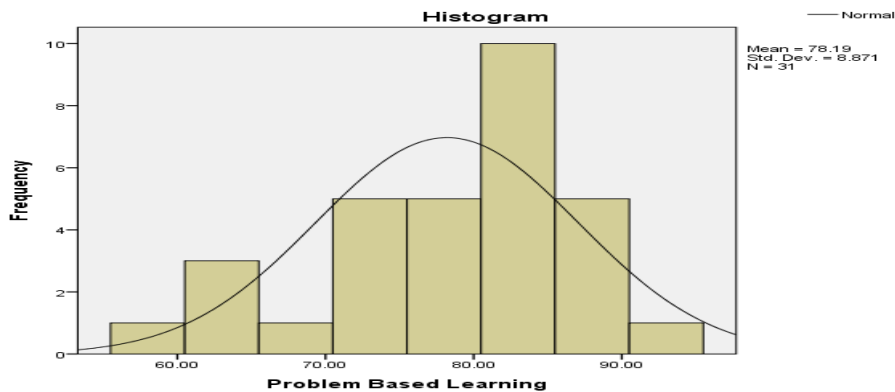


Figure 4. Normality Test Histogram Frequency Results

Correlation Coefficient Test

The correlation coefficient test is used to determine whether there is influence between the independent variable (X) on the dependent variable (Y), and the requirements for the correlation coefficient test are to see \geq with the product moment correlation formula. To see the effect of the two variables can be done by comparing between with . From the calculation above manually it can be seen that the correlation coefficient is 0.977. While the correlation coefficient test assisted by SPSS Ver 22 can be seen in the table below.

Table 8. Correlation Coefficient Test

		Problem Based Learning	Hasil Belajar
Problem Based Learning	Pearson Correlation	1	.977**
	Sig. (2-tailed)		.000
	N	31	31
Learning outcomes	Pearson Correlation	.977**	1
	Sig. (2-tailed)	.000	
	N	31	31

The table above shows that the correlation coefficient is 0.841. If $r_{count} \geq r_{table}$ $0.977 \geq 0.355$, it means that there is a very strong correlation between the problem-based learning model and the learning outcomes of class IV students, namely 97.7% and 2.3% influenced by other factors not examined in this study.

Table 9. Interpretation of the Correlation Test

Coefficient Intervals	Relationship Level
0,00-0,199	Very low
0,20-0,399	Low
0,40-0,599	Currently
0,60-0,799	Strong
0,80-1,000	Very strong

Hypothesis

After the data is declared to have a normal contribution and the samples come from the same or homogeneous population, then hypothesis testing can be carried out using the "t test". the statistic used to test the research hypothesis is the t-test the hypothesis proposed is.

Ha: There is an effect of applying the Problem Based Learning learning model to class student learning outcomes at SD Negeri 065013 Tanjung Sari Medan.

H0: There is no effect of applying the Problem Based Learning learning model on student learning outcomes in SD Negeri 065013 Tanjung Sari Medan.

Table 10. Hasil Uji-T

Model		Unstandardized Coefficients		Standardized	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	12.512	2.307		5.424	.000
	Problem Based Learning	.721	.029	.977	24.598	.000

To find out the t-test of SPSS ver 22 is 24.598. To find out whether the hypothesis is rejected or accepted, $t_{count} \geq t_{table}$, namely $24.598 \geq 2.045$, which means that there is an influence of the problem-based learning model on student learning outcomes. To support the results of SPSS ver 22, the following are the results of the manual t-test:

$$\begin{aligned}
 t &= \frac{r \sqrt{n-2}}{\sqrt{1-r^2}} \\
 &= \frac{0.977 \sqrt{31-2}}{\sqrt{1-0.977^2}} \\
 &= \frac{0.977 \sqrt{29}}{\sqrt{1-0.954529}} \\
 &= \frac{0.977 \cdot 5.385}{\sqrt{0.045471}} \\
 &= \frac{5.261}{0.213} \\
 &= 24.598
 \end{aligned}$$

The result of the manual t-test is 24.598, so it can be seen from the value of $t_{count} \geq t_{table}$, namely $24.598 \geq 2.045$, which means that there is an influence of the problem-based learning model on learning outcomes.

Discussion of Research Results

This research was conducted at SD Negeri 065013 Tanjung Sari Medan. The study used test questions and questionnaires or questionnaires as data collection tools with a total sample of 31 students. The purpose of conducting this research is to find out how much influence the problem-based learning model has on student learning outcomes in English subject in class IV SD Negeri 065013 Tanjung Sari Medan. The researcher concluded that there was a significant influence from the problem-based learning model on the learning outcomes of fourth grade students in Theme 8 Sub-theme 1 Lesson 1 lessons at SD Negeri 065013 Tanjung Sari Medan, 2022/2023 Academic Year.

CONCLUSIONS AND RECOMMENDATION

Based on the results of the discussion regarding the Effect of the Problem Based Learning Learning Model on Student Learning Outcomes in Theme 8 The Area Where I Live, Learning 1 Class IV SD Negeri 065013 Tanjung Sari, Medan Selayang District, Medan City, 2022/2023 Academic Year, some conclusions can be drawn as follows:

1. The implementation of learning using the problem based learning learning model in theme lesson 8 sub-theme 1 learning 1 "My Living Area" for the 2022/2023 academic year is categorized as very good, this can be seen from the average student pretest score of 55.51, of course entered into the less category, but after being given treatment, namely thematic learning on theme 8 sub-theme 1 learning 1 by using the problem-based learning model and posttesting, there was an increase in student learning outcomes where the average student score increased to 78.19 with a good category .
2. Based on the results of the normality test using the Liliefors (Shapiro Wilk) test with a result of 0.140 < 0.960 so that it can be said that the data has been distributed normally. Based on the correlation

coefficient test, it can be seen that the correlation coefficient value is 0.977 meaning $(0.977) > (0.355)$. So there is a very strong influence between the problem based learning learning model on student learning outcomes in class IV SD Negeri 065013Tanjung Sari Medan. Based on the calculations, the research results show that there is an influence of the problem-based learning model on student learning outcomes in lesson theme 8 sub-theme 1 learning 1 "The Area Where I Live" in class IV SD Negeri 065013 Tanjung Sari Medan 2022/2023 Academic Year which is proven based on the results of test calculations -t on the hypothesis where $\geq 24,598 \geq 2.045$ at a significant level $\alpha = 0.05$. Thus H_a is accepted and H_o is rejected.

3. The results of this study indicate that the problem-based learning model has an influence on student learning outcomes, this is evident from the results of 0.977 located in the range of values r 0.80-1.00, it can be concluded that the level of influence between the variables of the problem-based learning model to the learning outcomes variable has a very strong relationship after calculating the hypothesis test using the t test.

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