

## THE INFLUENCE OF INQUIRY LEARNING MODELS ON LEARNING OUTCOMES IN CLASS IV STUDENTS ELEMENTARY SCHOOL

Maria Enjelina Br Ginting<sup>1</sup>, Patri Janson Silaban<sup>2</sup>, Dian Wulan Sari HS<sup>3</sup>, Rumiris  
Lumban Gaol<sup>4</sup>, Dewi Anzelina<sup>5</sup>

<sup>1,2,3,4,5</sup> PGSD, Faculty of Teacher Training and Education, Universitas Katolik Santo Thomas  
Jln. Setia Budi No. 479 F Tanjung Sari Medan, North Sumatra  
Email: enjelina3002@gmail.com

**Abstract:** *This study aims to determine the effect of using the Inquiry Learning learning model on the learning outcomes of fourth grade students at Wijayanta Tigapanah Elementary School in the 2022/2023 academic year. In this study using a quantitative approach to the experimental method, the population of this study were all students of Wijayanta Tigapanah Elementary School, totaling 242 students. And the sample used is class IV, amounting to 30 students. To find out students' initial abilities, this study conducted a Pretest with an average student score of 49.7 which was in the lower category. Then the results of the Post Test have an increase from the results of the Pre Test given previously with an average student score of 81.3 in a very good category. The success rate of student learning outcomes increases as evidenced by the results of the calculation of the correlation test obtained at 0.832, which means  $r_{count} (0.832) > r_{table} (0.361)$ . Furthermore, testing the hypothesis ( $t$ -test) where  $t_{count} \geq t_{table}$  is 7.938  $>$  2.048 so that it can be stated that  $H_a$  is accepted and rejected. This shows that there is a significant positive effect from the use of the Inquiry Learning learning model on the learning outcomes of fourth grade students at Wijayanta Elementary School in the 2022/2023 academic year.*

**Keywords:** *Learning Outcomes and Inquiry Learning Models*

## **INTRODUCTION**

Education is carried out to form quality human resources. Education is a foundation for exploring and developing self-potential through the learning process carried out by students in the cognitive, affective and psychomotor domains. Education must be planned so that the desired goals can be achieved properly. These objectives have operationally been formulated in each teaching material in teaching activities. Education is also a place of interaction between students and teachers to practice their ability to speak and control themselves against their environment.

The purpose of education in Law no. 20 of 2003 concerning the national education system, article 3 states that the purpose of education is "National education functions to develop capabilities and form dignified national character and civilization in the context of educating the nation's life, aiming at developing the potential of students to become human beings who believe and fear God Almighty." One, having noble character, and being knowledgeable, capable, creative, independent, and being a democratic and responsible citizen.

The role of education is very important to ensure the survival of the State and nation, because education can improve and develop the quality of Human Resources (HR). One effort to improve the quality of education is to improve the teaching and learning process. In the learning process, teachers are required to be patient, tenacious, open-minded, and able to create active teaching and learning situations. Teachers are also required to be skilled in choosing and using teaching methods that are appropriate to the conditions they face.

Based on the results of the observations made by the author, the learning that took place was still monotonous. Learning feels monotonous because the learning that takes place focuses on the teacher, this is because the teacher still uses the lecture method in learning. In ongoing learning the teacher is expected to use learning models and media so that the ongoing learning does not focus solely on the teacher, but students are also actively involved in the ongoing learning process. By using media and models in learning, the learning process will be more fun and not boring.

In addition, the reality on the ground also shows the lack of student participation in learning. This is because there are still students who seem tense when learning takes place. Impressed with tension in learning, influenced by learning that is too focused on

learning. This causes some students to experience difficulties in participating in teaching and learning activities. In addition, the lack of self-confidence of students in expressing opinions in learning affects learning outcomes, so that student learning outcomes are low.

Based on the problems above, the researchers tried to apply the Inquiry Learning model to improve student learning outcomes. According to Syamsidah and Ratnawati (2020: 5) "the Inquiry Learning model is a series of learning activities that maximally involve all students' abilities to search and investigate systematically, critically, logically, analytically, so that Based on the description above, research was carried out using Quantitative Research procedures with title "The Influence of the Inquiry Learning Model on the Learning Outcomes of Grade IV Students at Wijayanta Tigapanah Elementary School in the 2022/2023 Academic Year."

## **METODE PENELITIAN**

### **Place and time of research**

The place for this research is Wijayanta Tigapanah Elementary School, Tigapanah District, Karo Regency, North Sumatra. This research was conducted in May in the even semester of the 2022/2023 academic year.

### **Population and Sample**

The research population is important because it is the object/subject of a study. According to Sugiyono (2018: 130), "Population is a generalised area consisting of: objects/subjects that have certain qualities and characteristics set by researchers to study and then draw conclusions." The population in this study was all Wijayanta Tigapanah Elementary School students in the 2022/2023 Academic Year, totaling 242 students, as seen in table 1 below.

Table 1 Number of Grade IV Students at Wijayanta Tigapanah Elementary School

Num	Class	Number of Students
1	I	50
2	II	53
3	III	34
4	IV	30
5	V	41
6	VI	34

According to Sugiyono (2018: 131) "The sample is part of the number and characteristics possessed by the population". Meanwhile, according to Arikunto (2021: 174) "Samples are part of or representative of the population being studied". The samples in this study were fourth grade students at Wijyanta Tigapanah Elementary School in the 2022/2023 Academic Year.

### Research methods

Sugiyono (2018: 1) explains that "the research method is defined as a scientific way to obtain data with specific purposes and uses". The research method used is experimental research. Experimental research, according to Sugiyono (2018: 111), is "quantitative research used to determine the effect of the independent variable (treatment/treatment) on the dependent variable (outcome) in controlled conditions.

The design used by researchers in this study was experimental research, namely the One-Group Pretest-Posttest design. In this design, the researcher gives a pretest, before being given treatment so that the results of the treatment can be known more accurately because they can be compared with the conditions before and after the treatment.

$$O_1 \times O_2$$

**Figure 1 One group pretest-posttest design**

Information:

O1 = Pretest Value

X = Treatment of inquiry learning learning model

O2 = Posttest Value

### Data collection technique

#### Test

According to Silaban (2019: 118) "A bag is a set of questions that must be answered, responded to, or tasks that must be carried out by the person being tested". The test is carried out to determine students' understanding of the learning that has just been implemented.

#### Questionnaire

Questionnaire Is a data collection technique that involves providing or distributing a list of questions to respondents. Sugiyono (2018: 219) says, "The questionnaire is a data collection technique that is carried out by giving a set of questions or written statements to the respondent to answer."

#### Validity test

According to Arikunto (2021: 211), "Validity is a measure that shows the levels of validity or validity of an instrument". An instrument that is valid has high validity, conversely, an instrument that is less valid has low validity. The correlation formula used in this study is that proposed by the person, known as the product moment correlation formula.

Product moment formula

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

Information:

$R_{xy}$  = Correlation coefficient between X and Y variables

$\sum xy$  = The number of times X multiplied by Y

N = Number of test takers

X = Total score obtained by students for each question item

Y = Total score sum

From the results of the trial using the formula above, an item will be declared valid if it has a high index of discrimination, i.e.  $r_{count}$  is greater than  $r_{table}$  or  $r_{count} \geq r_{table}$ . And conversely, if the  $r_{count}$  obtained is smaller than the  $r_{table}$  then the item is declared invalid, or  $r_{count} \leq r_{table}$ .

### Reliability Test

Arikunto Suharsimi (2014) emphasised that "Reliability test is an instrument that can be trusted enough to be used as a data collection tool because the instrument is good". Therefore, to test the reliability of researchers using the K-R20 formula (Kuder Richardson).

The K-R20 formula (Kuder Richardson) is as follows:

$$r_i = \left( \frac{k}{k-1} \right) \left( \frac{s_t^2 - \sum p_i q_i}{s_t^2} \right)$$

Information:

$r_i$  = instrument reliability

k = Number of items in the instrument

$p_i$  = Proportion of the number of subjects who answered item 1

$q_i = 1 - p_i$

$S_t^2$  = Total variance

To find the total variance, the following formula is used:

$$S_t^2 = \frac{\sum X^2 - \frac{(\sum X)^2}{N}}{N}$$

Information :

$S_t$  = Total variance

$\sum x$  = Sum of total scores

$\sum x^2$  = Sum of Squares questions

N = Number of students taking the test

### Normality test

Before testing the hypothesis, the normality of the data is tested first. The normality test is used to test whether or not the distribution of the data to be analysed 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):

$$\sum_{i=1}^k \frac{(f_o - fh)^2}{fh}$$

Information :

X2 = Chi Squared

FO = Observed frequency

Fh = Expected frequency

If Lcount  $\leq$  Ltable is normally distributed

If Lcount  $\geq$  Ltable mala is not normally distributed

### Correlation Coefficient Test

To find out whether or not there is influence between the independent variables and the dependent variable. With the product moment correlation formula, namely:

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

Information:

rx<sub>y</sub> = Product moment correlation coefficient

N = Total number of students

$\sum X$  = Item score

$\sum Y$  = Total score of all students

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

**Table 2 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

It can be concluded that if rcount  $\geq$  rtable then there is an influence between the independent and dependent variables. Conversely, if rcount  $\leq$  rtable, then there is no influence between the independent variable and the dependent variable.

### 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:

$$t = \frac{r\sqrt{n-2}}{\sqrt{1-r^2}}$$

Information

r = Correlation Coefficient

and = sample hypothesis is accepted, if tcount  $\geq$  ttable and vice versa, if tcount  $\leq$  ttable then the hypothesis is rejected. With a 5% error rate.

## RESULTS AND DISCUSSION

### Pre-test results

In this study, the researcher first conducted a pretest to determine students' abilities before being treated in learning. The researcher gave 30 questions to 30 students and the result was that their scores were low below the KKM that was set and proven through the following table:

**Table 3 Frequency Distribution of Pre Test Experiment Model Inquiry Learning Data**

<b>X</b>	<b>F</b>	<b>FX</b>	<b>X=<math>\bar{x}</math>-X</b>	<b>X<sup>2</sup></b>	<b>FX<sup>2</sup></b>
20	1	20	-29,767	886,054	886,054
23	1	23	-26,767	716,454	716,454
33	1	33	-16,767	281,121	281,121
36	1	36	-13,767	189,521	189,521
39	3	117	-10,767	115,921	347,763
40	1	40	-9,767	95,388	95,388
43	2	86	-6,767	45,788	91,576
46	2	92	-3,767	14,188	28,376
50	1	50	0,233	0,054	0,054
53	7	371	3,233	10,454	73,181
56	4	224	6,233	38,854	155,418
60	1	60	10,233	104,721	104,721
63	3	189	13,233	175,121	525,363
73	1	73	23,233	539,788	539,788
79	1	79	29,233	854,588	854,588
	<b><math>\Sigma F=</math> 30</b>	<b><math>\Sigma FX=149</math> 3</b>		<b><math>\Sigma X^2 = 4068,017</math></b>	<b><math>\Sigma FX^2= 4889,367</math></b>

Based on the data above, the mean, standard deviation and standard error can be as follows:

a. Average (Mean)

$$Mx = \frac{\sum fx}{n}$$

$$Mx = \frac{1493}{30}$$

$$Mx = 49,8$$

b. Standard Deviation

$$SD = \sqrt{\frac{\sum fx^2}{n}}$$

$$SD = \sqrt{\frac{4889,367}{30}}$$

$$SD = \sqrt{162,9789}$$

$$SD = 12,76$$

c. Standard Error

$$SE_m = \frac{SD}{\sqrt{N-1}}$$

$$SE_m = \frac{12,76}{\sqrt{30-1}}$$

$$SE_m = \frac{12,76}{\sqrt{29}}$$

$$SE_m = \frac{12,76}{5,38}$$

$$SE_m = 2,37$$

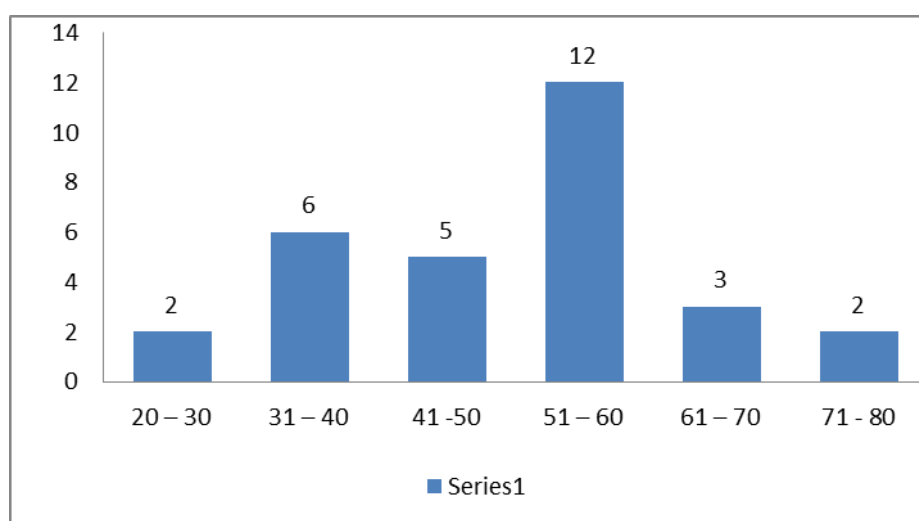
**Table 4. Percentage Distribution of Pre Test results**

<b>Mark</b>	<b>Frequency</b>	<b>Percentage</b>	<b>Information</b>
20 – 30	2	6,6 %	Not good
31 – 40	3	10%	Not good
41 -50	7	23,5%	Not enough
51 – 60	14	46,7%	Not enough
61 – 70	2	6,6%	Enough
71 – 80	2	6,6%	Good



<b>Amount</b>	<b>30</b>	<b>100%</b>	
---------------	-----------	-------------	--

Based on the frequency distribution table above, the Pre-Test value in class IV obtained the highest score of 80 and the lowest score of 20. The average (Mean) was obtained at 49.8 and the standard deviation was 12.76. Students who get scores above the average are 2 people with a percentage of 6.7% and students who get scores below the average are 28 people with a percentage of 93.3%. The highest percentage is 93.3% and the lowest percentage is 6.7%. The following is a histogram frequency table of students' pre-test scores.



**Figure 2 Pre Test Value Frequency Distribution Diagram**

### Posttest results

After all the lessons have been taught using the Inquiry Learning learning model, then the researcher gives a Post Test which aims to determine the level of success of the actions given. The results of the Post Test scores of students can be seen in the table below.

**Table 5 Post Test Frequency Distribution**

<b>X</b>	<b>F</b>	<b>FX</b>	<b>X=<math>\bar{x}</math>-X</b>	<b>X<sup>2</sup></b>	<b>FX<sup>2</sup></b>
69	3	207	-11,833	140,028	420,083
70	1	70	-10,833	117,361	117,361

76	4	304	-4,833	23,361	93,444
79	5	395	-1,833	3,361	16,806
80	3	240	-0,833	0,694	2,083
83	3	249	2,167	4,694	14,083
86	5	430	5,167	26,694	133,472
89	2	178	8,167	66,694	133,389
90	2	180	9,167	84,028	168,056
93	2	186	12,167	148,028	296,056
	<b><math>\Sigma F=30</math></b>	<b><math>\Sigma FX=2439</math></b>		<b><math>\Sigma X^2= 615</math></b>	<b><math>\Sigma FX^2=1394</math></b>

Based on the data above, the mean, standard deviation and standard error can be as follows:

a. Average

$$Mx = \frac{\Sigma fx}{n}$$

$$Mx = \frac{2439}{30}$$

$$Mx = 81,3$$

b. Standard Deviation

$$SD = \sqrt{\frac{\Sigma fx^2}{n}}$$

$$SD = \sqrt{\frac{1394}{30}}$$

$$SD = \sqrt{46.47}$$

$$SD = 6,81$$

c. Standard Error

$$SE_m = \frac{SD}{\sqrt{N-1}}$$

$$SE_m = \frac{6,81}{\sqrt{30-1}}$$

$$SE_m = \frac{6,81}{\sqrt{29}}$$

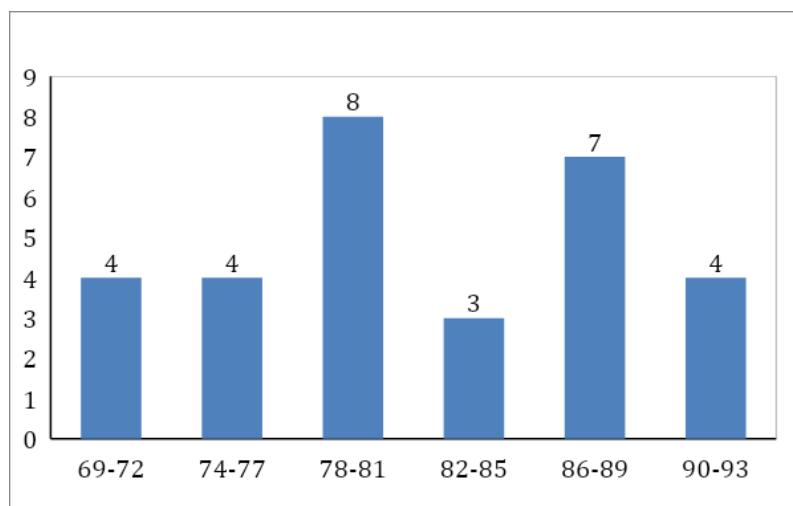
$$SE_m = \frac{6,81}{5,38}$$

$SE_m = 1,26$

**Table 6 Percentage Distribution of Post Test Results**

Mark	Frequency	Percentage	Information
69-72	4	13,3%	Enough
74-77	4	13,3%	Good
78-81	8	26,7%	Good
82-85	3	10%	Very well
86-89	7	23,4%	Very well
90-93	4	13,3%	Very well
	<b>30</b>	<b>100%</b>	

Based on the frequency distribution table for the Post-Test scores in class IV, the highest score was 96 and the lowest score was 69. The average value was 81.3 and the standard deviation was 6.81. Students who get scores above the average are 24 people with a percentage of 80% and students who get an average pass score are 6 people with a percentage of 20%. The following is a histogram frequency table of students' Post Test scores.

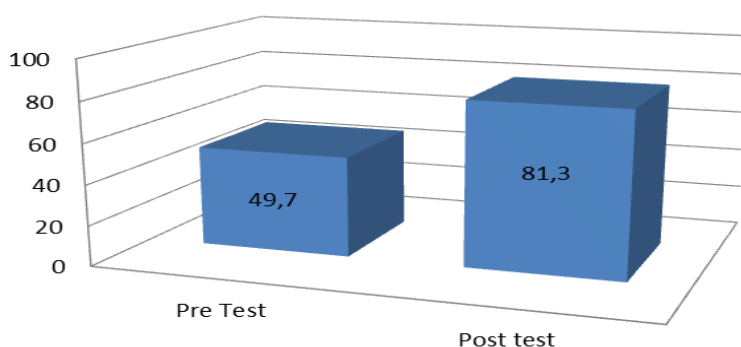


**Figure 3 Distribution of Post Test Value Frequency Diagrams**

Based on the data above, it can be seen that the Post Test scores of students are 4 respondents obtaining a score of around 69-72 at 13.3%, 4 respondents obtaining a

score of around 74-77 at 13.3%, 8 respondents obtaining a score of around 78-81 at 26.7%, 3 respondents obtained a score of around 82-85 at 10%, 7 respondents obtained a score of around 86-89 at 23.4%, 4 respondents obtained a score of around 90-93 at 13.3%.

The results of the Post Test scores showed an increase in the learning completeness of class IV students. This result can be seen from the Post Test score which is higher than the Pre Test score. Where the average post test score is 81.2 while the pre test average score is 49.7. For more details, it can be seen from the average value of the Pre Test and Post Test in the diagram below



**Figure 4. Pre-test and post-test average scores diagram**

Based on the diagram above, it can be seen that the average value of the Post Test is higher than the average value of the Pre Test in learning material theme 9 Kayanya Negeriku subtheme 2 learning 1.

**Table 7 Assessment Criteria**

<b>Correlation coefficient</b>	<b>Keterangan</b>
80-100	Very well
70-79	Good
60-69	Enough
50-59	Not enough
0-49	Fail

Based on the table above, it can be seen that the average value obtained by students is 81.3 in the very good category.

## Questionnaire Results

At the end of the lesson, after being given the Post Test, the Inquiry Learning model will then be given a questionnaire which aims to see the teacher's activities while teaching using the Inquiry Learning learning model. The results of the student questionnaire scores can be seen in the table below.

**Table 8 Frequency Distribution of Questionnaire Results**

<b>X</b>	<b>F</b>	<b>FX</b>	<b>X=<math>\bar{x}</math>-X</b>	<b>X<sup>2</sup></b>	<b>FX<sup>2</sup></b>
66	1	66	-13,967	195,068	195,068
69	2	138	-10,967	120,268	240,536
70	1	70	-9,967	99,334	99,334
73	2	146	-6,967	48,534	97,069
76	4	304	-3,967	15,734	62,938
79	4	316	-0,967	0,934	3,738
80	4	320	0,033	0,001	0,004
83	5	415	3,033	9,201	46,006
86	3	258	6,033	36,401	109,203
90	2	180	10,033	100,668	201,336
93	2	186	13,033	169,868	339,736
	<b><math>\Sigma F = 30</math></b>	<b><math>\Sigma FX = 2399</math></b>		<b><math>\Sigma X^2 = 796</math></b>	<b><math>\Sigma FX^2 = 1395</math></b>

Based on the data above, the mean, standard deviation and standard error can be as follows:

a. Average

$$Mx = \frac{\Sigma fx}{n}$$

$$Mx = \frac{2399}{30}$$

$$Mx = 80$$

b. Standard Deviation

$$SD = \sqrt{\frac{\sum fx^2}{n}}$$

$$SD = \sqrt{\frac{1395}{30}}$$

$$SD = \sqrt{46,5}$$

$$SD = 7$$

c. Standard Error

$$SE_m = \frac{SD}{\sqrt{N-1}}$$

$$SE_m = \frac{7}{\sqrt{30-1}}$$

$$SE_m = \frac{7}{\sqrt{29}}$$

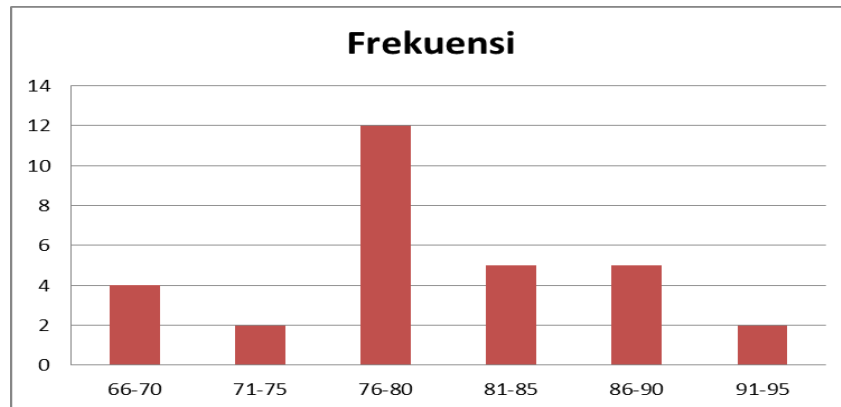
$$SE_m = \frac{7}{5,3}$$

$$SE_m = 2,8$$

**Table 9 Percentage Distribution of Questionnaire Results**

<b>Mark</b>	<b>Frequency</b>	<b>Percentage</b>
66-70	4	13,4%
71-75	2	6,7%
76-80	13	40%
81-85	5	16,6%
86-90	5	16,6%
91-95	2	6,7%
<b>Jumlah</b>	<b>30</b>	<b>100%</b>

From the table above it can be seen that the value of the student learning model questionnaire is: 4 respondents obtained a score of around 66-70 at 13.4%, 2 respondents obtained a score of around 71-75 at 6.7%, 13 respondents obtained a score of around 75- 80 around 16.6%, 5 respondents got a score of around 81-85 at 16.6%, 5 respondents got a score around 86-90 at 16.6%, and 2 respondents got a score around 91-95 at 6.7%. For more details can be seen from the diagram below.



**Figure 5 Questionnaire Value Frequency Distribution Diagram**

### Results of Data Analysis

#### Normality test

The normality test was carried out to find out whether the data from the Post Test learning outcomes of class IV students were normally distributed or not. The data being tested is the Posttest after the actions and treatments have been carried out using the Inquiry Learning model. Below are the results of normality calculations with the help of SPSS Version 22.

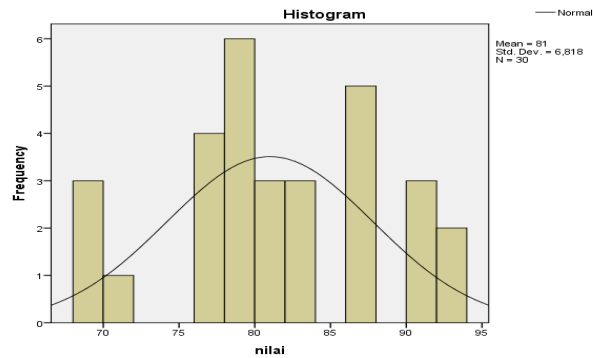
**Table 10. Test for Normality of Learning Outcomes**

	Kolmogorov-Smirnov <sup>a</sup>			Shapiro-Wilk		
	Statistic	Df	Sig.	Statistic	Df	Sig.
Mark	,125	30	,200*	,948	30	,154

Decision making with a significance of 5% is as follows

1. Significant value (sig)  $\geq 0.05$  normal distribution
2. Significant value (sig)  $\leq 0.05$  distribution is not normal

The significance rate value used by the research is a significant rate of 5% or 0.05. Based on the Lilefors test (kolomogorov-Sminov) decision making with a significant rate (sig)  $\geq 0.05$ , namely  $0.200 \geq 0.05$ , the data is said to be normally distributed. To support the statement above, the researcher presents the histogram results at normality below.



**Figure 6. Histogram of Normality Test Frequency**

### Correlation Coefficient Test

The correlation coefficient test is used to determine whether there is influence between the independent variable (X) and the dependent variable (Y). The requirements for testing the correlation coefficient are by looking at  $r_{count} \geq r_{table}$  with the Product Moment correlation coefficient formula.

**Table 11 Correlation Coefficient Value of the Inquiry Learning Model**

No	X	Y	X <sup>2</sup>	Y <sup>2</sup>	XY
1	73	78	5329	6084	5694
2	93	93	8649	8649	8649
3	76	79	5776	6241	6004
4	80	80	6400	6400	6400
5	76	79	5776	6241	6004
6	80	83	6400	6889	6640
7	79	86	6241	7396	6794
8	76	76	5776	5776	5776
9	79	79	6241	6241	6241



10	83	70	6889	4900	5810
11	93	93	8649	8649	8649
12	80	80	6400	6400	6400
13	86	86	7396	7396	7396
14	83	89	6889	7921	7387
15	80	80	6400	6400	6400
16	69	69	4761	4761	4761
17	86	86	7396	7396	7396
18	90	90	8100	8100	8100
19	79	83	6241	6889	6557
20	69	69	4761	4761	4761
21	70	76	4900	5776	5320
22	66	69	4356	4761	4554
23	73	76	5329	5776	5548
24	83	89	6889	7921	7387
25	90	90	8100	8100	8100
26	86	79	7396	6241	6794
27	76	76	5776	5776	5776

28	83	83	6889	6889	6889
29	83	86	6889	7396	7138
30	79	86	6241	7396	6794
<b>Amount</b>	<b>2399</b>	<b>2438</b>	<b>193235</b>	<b>199522</b>	<b>196119</b>

To see the relationship of the two variables can be done by comparing between rcount and rtable. Below is the correlation test calculation with the help of SPSS Version 22 as follows.

**Table 12 Correlation Coefficient Test**

		<b>Inquiry Learning</b>	<b>Learning outcomes</b>
Inquiry Learning	Pearson Correlation	1	,832**
	Sig. (2-tailed)		,000
	N	30	30
Learning outcomes	Pearson Correlation	,832**	1
	Sig. (2-tailed)	,000	
	N	30	30

The table above shows that the correlation coefficient is 0.832. If  $r_{count} \geq r_{table}$  then  $0.832 \geq 0.361$ . This means that there is a very strong correlation effect between the Inquiry Learning learning model on the learning outcomes of class IV students, namely 83.2% and 16.8% influenced by other factors not examined in this assessment.

**Table 13 Correlation Interpretation**

<b>Interval Koefisien</b>	<b>Tingkat Hubungan</b>
0,00-0,199	Sangat Rendah
0,20-0,399	Rendah
0,40-0,599	Sedang

0,60-0,799	Kuat
0,80-1,000	Sangat Kuat

### Hypothesis test

After the data is declared to be normally distributed and the samples are from the same 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 put forward is  
 Ha : There is an influence of the Inquiry Learning model on student learning outcomes  
 Ho: There is no effect of the Inquiry Learning learning model on student learning outcomes.

The hypothesis is accepted (Ha) if  $t_{count} \geq t_{table}$  and rejected (Ho) if  $t_{count} \leq t_{table}$ . The results of the calculation of the t-test hypothesis can be seen in the following table:

**Table 14 Hypothesis Testing**

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	14,754	8,409		1,755	,090
	INQUIRY LEARNING	,832	,105	,832	7,938	,000

The result of the t-test calculation from SPSS Ver 22 is 7.938. To find out whether the hypothesis is accepted or rejected,  $t_{count} \geq t_{table}$ , namely  $7.938 \geq 2.048$ , which means that there is an influence of the Inquiry Learning model on student learning outcomes. To support the results of the t-test from SPSS ver 22, the following are the results of the manual trials

$$t = r \frac{\sqrt{n-2}}{\sqrt{1-r^2}}$$

$$t = 0,832 \frac{\sqrt{30-2}}{\sqrt{1-0,832^2}}$$

$$t = 0,832 \frac{\sqrt{28}}{\sqrt{1-0,692224}}$$

$$t = 0,832 \frac{\sqrt{28}}{\sqrt{0,307776}}$$

$$t = 0,832 \frac{5,291}{0,554}$$

$$t = 0,832 \times 9,55$$

$$t = 7,938$$

$$t = 0,832 \times 9,55$$

$$t = 7,938$$

The results of the manual t-test above were 7.938, so it can be seen from the value of  $t_{count} \geq t_{table}$ , namely  $7.938 \geq 2.048$ , which means that there is a positive influence of the Inquiry Learning learning model on student learning outcomes.

### **Discussion of Findings**

Based on the results of previous data processing carried out by researchers, the following is a brief discussion of the results of research conducted by researchers:

1. The research was conducted in class IV of Wijayanta Tigapanah Elementary School. To find out the students' initial abilities, the researcher conducted a Pretest with multiple choice questions and the same type of questions, the results were obtained with an average of 49.7, it can be said that the students' initial abilities were still lacking.
2. After conducting the Pre-Test, the researcher conveys the material using the Inquiry Learning learning model. At the end of the lesson, the researcher again gave the Post-Test which had an increase from the results of the Pre-Test given previously. The Post-Test results that have been tested are 81.3. From these data, it can be said that the success rate of learning outcomes has increased.
3. There is a significant influence using the Inquiry Learning learning model on student learning outcomes in theme 9 Kaya Negeriku subtheme 2 learning 1. It can be proven through the total score results with normality test results with normality testing criteria, namely a significant value ( $\text{sig} \geq 0.161$ ), namely  $0.200 \geq 0.161$  then the sample is normally distributed
4. The results of the correlation coefficient prove that there is an influence of the Inquiry Learning model (X) on student learning outcomes (Y) where  $t_{count} \geq$

ttable, namely  $0.832 \geq 0.361$ , it can be concluded that there is a very strong influence.

5. In the hypothesis test, namely  $t_{count} \geq t_{table}$  where the results are  $7.938 \geq 2.048$  with a significant level ( $\alpha = 0.05$ ) it can be proven that the alternative hypothesis ( $H_a$ ) is accepted, namely there is a significant positive effect from using the Inquiry Learning learning model on results study of fourth grade students at Wijayanta Tigapanah Elementary School in the 2022/2023 Academic Year. This proves that the Inquiry Learning learning model is very effective in thematic learning

## CONCLUSION

Based on the discussion in this chapter, the researcher outlines the conclusions compiled based on research activities regarding the effect of the Inquiry Learning learning model on the learning outcomes of fourth grade students at Wijayanta Tigapanah Elementary School in the 2022/2023 Academic Year as follows:

1. The process of implementing the Inquiry Learning learning model for the learning outcomes of fourth grade students at Wijayanta Tigapanah Elementary School is by giving Pre-Test and Post-Test to respondents, the test is given 30 questions each. Before being given the treatment the researcher gave the Pre-Test, then the researcher gave the treatment to the students using the Inquiry Learning model, after giving the treatment the researcher gave the Post-Test, this was done so that the researcher knew how far the students' abilities were after being given the treatment.
2. After applying the Inquiry Learning model to the learning outcomes of fourth grade students at Wijayanta Tigapanah Elementary School, the learning outcomes of students increased. This can be seen from the students' average Pretest score of 49.7 which is in the low category, while the Post-Test average score is 81.3 which is in the very good category.
3. There is an influence of the Inquiry Learning model on student learning outcomes in class IV material theme 9 Kayanya Negeriku subtema 2 Learning 1 at Wijayanta

Tigapanah Elementary School 2022/2023 Academic Year. This can be proven by the assessment for the normality test if  $L_{count} \leq L_{table}$  then it is normally distributed, so  $0.108 \leq 0.161$  it can be concluded that the data is normally distributed. The normality test can also be seen from the significant rate ( $sig$ )  $\geq 0.05$ , namely  $0.200 \geq 0.05$ , so the data can be said to be normally distributed. Furthermore, the value of the correlation coefficient obtained is 0.832 which is in a very strong interpretation. The results of the calculation of the T-test to find out whether the hypothesis is accepted or rejected, then  $t_{count} \geq t_{table}$ , namely  $7.938 \geq 2.048$ , which means that there is an influence of the Inquiry Learning model on student learning outcomes. Thus  $H_a$  is accepted and  $H_o$  is rejected.

#### **THANK-YOU NOTE**

Thank you to the PGSD Study Program, Faculty of Teacher Training and Education Universitas Katolik Santo Thomas who have provided support in completing this paper.

## REFERENCES

- Amri, S. (2013). *Pengembangan & Model Pembelajaran Dalam Kurikulum 2013*. PT. Prestasi Pustakarya.
- Amri, S. (2013). *Pengembangan & Model Pembelajaran Dalam Kurikulum 2013*. PT. Prestasi Pustakarya
- Andriani, L., & Miaz, Y. (2021). Pengaruh Model Inquiri Learning Terhadap Hasil Belajar Peserta Didik pada Materi Kecepatan , Jarak , dan Waktu di. *Journal of Basic Education studies*, 4(2), 305–316.
- Arikunto. (2021). *PROSEDUR PENELITIAN*. PT Rineka Cipta.
- Banjar, R. P., Silaban, P. J., & Sitepu, A. (2020). Pengaruh Pembelajaran Tematik Melalui Pendekatan Saintifik terhadap Minat Belajar Siswa di Sekolah Dasar. *Jurnal Basicedu*, 4(4), 1291–1301. <https://doi.org/10.31004/basicedu.v4i4.527>
- Belajar, H., Kelas, S., Di, I. V, Negeri, S. D., Hilli, V. F., & Ratu, K. T. R. A. (2022). *PENGGUNAAN MODEL PEMBELAJARAN INKUIRI PADA MATERI MACAM-MACAM GAYA UNTUK MENINGKATKAN*. 1(1), 55–61.
- Dimiyanti & Mudjiono. (2019). BELAJAR & PEMBELAJARAN. In 6. PT Asdi Mahastya, Jakarta.
- Dyan Wulan Sari Hs, & Agus Kistian. (2020). Perbedaan Sikap Ilmiah Siswa Menggunakan Model Pembelajaran Inquiry Training Dengan Model Pembelajaran Direct Instruction. *Jurnal Tunas Bangsa*, 7(2), 174–188. <https://doi.org/10.46244/tunasbangsa.v7i2.1160>
- Guru, P., Dasar, S., & Aquinas, J. (2019). *Pendidikan Guru Sekolah Dasar Juril AQUINAS*. 2003(1), 22–43.
- HS Sari, W. D., & Silitonga, I. (2021). Pengaruh Model Pembelajaran Discovery Learning Terhadap Kemampuan Berpikir Kreatif Siswa Kelas IV SDN 066050 Medan. *Bina Gogik*, 8(3), 89–98.
- Istarani. (2019). *58 Model Pembelajaran Inovatif*. MEDIA PERSADA.
- Kaban, R. H., Anzelina, D., Sinaga, R., & Silaban, P. J. (2020). Pengaruh Model Pembelajaran PAKEM terhadap Hasil Belajar Siswa di Sekolah Dasar. *Jurnal Basicedu*, 5(1), 102–109. <https://doi.org/10.31004/basicedu.v5i1.574>

- Maryanto. (2019). *Kayanya Negriku/ Kementerian Pendidikan dan Kebudayaan*. CV ARYA DUTA.
- Peranginangin, R. B. (2021). Penerapan Model Inquiry Learning Terhadap Hasil Belajar Siswa Pada Mata Pelajaran Pendidikan Kewarganegaraan (PKn) Di Kelas VI SD Negeri 040527 Tigapanah Semester II T.P 2019 / 2020. *Bina Gogik*, 8(2), 38–47. <https://ejournal.stkipbbm.ac.id/index.php/pgsd/article/view/725>
- Ratnawati & Syamsidah. (2020). *Panduan Model Inquiry Learning*. Deepublish (CV BUDI UTAMA).
- Rini, I. S. (2020). pengaruh perhatian orang tua dalam kegiatan belajar terhadap prestasi belajar siswa di SD Negeri nusa tunggal kecamatan belitang III. *JEMARI (Jurnal Edukasi Madrasah Ibtidaiyah)*, 2(2), 96–107. <https://doi.org/10.30599/jemari.v2i2.582>
- Silaban, P. J. (2019). Penerapan Model Pembelajaran Inkuiri untuk Meningkatkan Hasil Belajar Siswa pada Mata Pelajaran Matematika di Kelas VI SD Negeri 066050 Medan Tahun Pembelajaran 2018/2019. *Jurnal Ilmiah Aquinas*, 2(1), 107-126.
- Silaban, P. J. (2019). Penerapan Model Pembelajaran Inkuiri untuk Meningkatkan Hasil Belajar Siswa pada Mata Pelajaran Matematika di Kelas VI SD Negeri 066050 Medan Tahun Pembelajaran 2018/2019. *Jurnal Ilmiah Aquinas*, 2(1), 107-126.
- Silaban, P. J. (2015). *Meningkatkan Motivasi dan Kemampuan Pemahaman Matematis Siswa Melalui Pembelajaran Kooperatif Tipe Tgt Berbantuan Alat Peraga Pada Mata Pelajaran Matematika di Kelas VI SD Methodist-12 Medan Tahun Ajaran 2014* (Doctoral dissertation, UNIMED).
- Silaban, P. J., & Hasibuan, A. (2021). Hubungan Lembar Kerja Peserta Didik Berbasis Cat Terhadap Kemampuan Pemahaman Matematis Siswa. *Jurnal Ilmiah Aquinas*, 4(1), 48-59.
- Silaban, P. J. (2019). Efektivitas Pembelajaran Melalui Pembelajaran Kooperatif Tipe Tgt Berbantuan Alat Peraga Di Kelas Vi Sd Methodist-12 Medan Pada Kompetensi Dasar Luas Bangun Datar Sederhana. *Jurnal Ilmiah Aquinas*, 2(2), 175-199.
- Silaban, P. J. (2017). Meningkatkan Motivasi Dan Kemampuan Pemahaman Matematis Siswa melalui Alat Peraga Montessori Pada Mata Pelajaran Matematika Kelas IV



SD ASSisi Medan. *ELEMENTARY SCHOOL JOURNAL PGSD FIP UNIMED*, 7(4), 502-511.

- Simatupang, E. (2021). Penerapan Model Inquiry Learning Untuk Meningkatkan Hasil Belajar Siswa Kelas 4 Sd Negeri 094175 Margosono Tahun Pelajaran 2018/2019. *Jurnal Mitra Pendidikan*, 2(10), 1063–1077.
- Sipahutar, I. M., Anzelina, D., Marianus, S. M., & Silaban, P. J. (2022). Upaya Meningkatkan Hasil Belajar Siswa Dengan Menggunakan Model Inquiry Learning di Kelas IV SDN 060833 Medan. *Seminar Nasional Sosial Sains, Pendidikan, Humaniora (SENASSDRA)*, 1, 54–67.
- Slameto. (2018). *Belajar dan Faktor-faktor yang Memengaruhinya*. PT Asdi Mahastya, Jakarta.
- Sugiono. (2018). *METODE PENELITIAN KUANTITATIF*. Alfabeta.
- TRYANNI, T. (2023). Pengaruh Model Pembelajaran Problem Based Learning Terhadap Kemampuan Pemecahan Masalah Matematika Siswa. *EDUCATIONAL : Jurnal Inovasi Pendidikan & Pengajaran*, 2(4), 325–332. <https://doi.org/10.51878/educational.v2i4.1821>
- Winanto, A., Makahube, D., Belajar, M., & Masalah, L. B. (2005). *UNTUK MENINGKATKAN MOTIVASI DAN HASIL BELAJAR IPA SISWA KELAS 5 SD NEGERI KUTOW*