

THE EFFECT OF NUMERICAL LITERACY LEARNING MODEL ON THE FIFTH-GRADE STUDENTS' MATHEMATICS LEARNING OUTCOMES AT SD NEGERI 156320 SIMPANG TIGA 2

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ABSTRACT

This paper describes the effect of applying the numerical literacy learning model on students' mathematics learning outcomes in the material of collecting and presenting data in class V at SD Negeri 156320 Simpang Tiga 2 in the academic year 2022/2023. The research uses a quantitative research method. The research population is 30 fifth-grade students of SD Negeri 156320 Simpang Tiga 2, which consist of 16 male and 14 female students. The sampling technique uses a purposive sample, which distributes in class V with the number of 30 students. The research results indicate that students' learning outcomes using the numerical literacy model are considered in the good category with an average score of 77.96 and a correlation test result of 0.983, which means $r_{count} (0.983) \geq r_{table} (0.361)$, hence H_a is accepted. Thus, there is a very strong influence between the use of the numerical literacy learning model on students' mathematics learning outcomes in the material of collecting and presenting data in class V at SD Negeri 156320 Simpang Tiga 2. It can be seen from the results of the T-test research where $t_{count} 28.266 \geq t_{table} 1.697$ so that it can be stated that H_a is accepted. It shows that there is a significant positive effect from the use of the numerical literacy learning model on students' mathematics learning outcomes in the material of collecting and presenting data in class V at SD Negeri 156320 Simpang Tiga 2 in the academic year 2022/2023.

Keywords: students' learning outcomes, numerical literacy, learning model, mathematics

PENGARUH MODEL PEMBELAJARAN LITERASI NUMERASI TERHADAP HASIL BELAJAR MATEMATIKA SISWA KELAS V SD NEGERI 156320 SIMPANG TIGA 2

ABSTRAK

Artikel ini memaparkan pengaruh penggunaan model pembelajaran literasi numerasi terhadap hasil belajar matematika pada materi pengumpulan dan penyajian data siswa kelas V SD Negeri 156320 Simpang Tiga 2 tahun pembelajaran 2022/2023. Penelitian menggunakan metode kuantitatif. Populasi penelitian adalah seluruh kelas V SD Negeri 156320 Simpang Tiga 2 yang terdiri dari 16 laki-laki dan 14 perempuan. Teknik pengambilan sampel menggunakan sampel *purposive* yang didistribusikan di kelas V yang berjumlah 30 siswa. Hasil penelitian menunjukkan bahwa hasil belajar siswa dengan menggunakan model literasi numerasi termasuk dalam kategori baik dengan rata-rata 77,96 dengan hasil uji korelasi sebesar 0.983 yang artinya $r_{hitung} (0.983) \geq r_{tabel} (0.361)$ maka H_a diterima. Maka terdapat pengaruh yang sangat kuat antara penggunaan model pembelajaran literasi numerasi terhadap hasil belajar matematika siswa pada materi pengumpulan dan penyajian data di kelas V SD Negeri 156320 Simpang Tiga 2. Dapat dilihat dari hasil penelitian uji-T dimana $t_{hitung} \geq t_{tabel}$ yaitu $28.266 \geq 1.697$ sehingga dapat dinyatakan bahwa H_a diterima. Hal ini menunjukkan bahwa adanya pengaruh positif yang signifikan dari penggunaan model pembelajaran literasi numerasi terhadap hasil belajar matematika siswa pada materi pengumpulan dan penyajian data di kelas V SD Negeri 156320 Simpang Tiga 2 tahun pembelajaran 2022/2023.

Kata Kunci: hasil belajar siswa, literasi numerasi, model pembelajaran, matematika

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INTRODUCTION

In the world of education will not be separated from how to improve student learning outcomes, this continues so that the next

generation can grow and have high competitiveness, especially in the current era, namely in the era of globalization. Where in the

era of globalization, the development of information is very rapid, one of which is educational information. Improving the quality of education must be continuously encouraged to be able to keep pace with the times as an effort to prepare quality human resources, especially in this 21st century era where education always strives to get new things, especially in the learning process. According to Abidin, (2015: 4) education in the 21st century is related to the ability to think critically, the ability to think creatively, the ability to solve problems, the ability to metacognition and ethics in association. Therefore, to make students competent in the 21st century is our duty and responsibility. We can also see the improvement of the quality of education from literacy skills where literacy has always been very influential on improving the quality of education where literacy is not only limited to reading but also for arithmetic. However, along with the current times, literacy has increased, which is now often known as multiliteracy. As the inventor said above where this multiliteracy will affect and even greatly provide a very high quality of education and become one of the success factors of students in learning.

The quality of good education and the development of the times will certainly be one of the success factors of students in learning. Student success in learning is determined by the teacher, the extent to which the teacher can master the learning material and how the teacher delivers the material to students. Due to the limited ability of students to understand lessons, in the teaching and learning process teachers are required to choose a learning model that is in accordance with the material so that effective interaction can occur between teachers and students and teachers are required to be better able to master the class and create an interesting classroom atmosphere so as to make the learning atmosphere fun. In learning, ideally students are accustomed to gain understanding through experience and knowledge developed by students in accordance with the development of their thinking. Especially creative thinking, is very necessary for students' lives, so that they are able to filter information, choose whether or not a

need is feasible, which sometimes still has errors and creates new and varied ideas and ideas.

In teaching activities, the learning model is also very important. Therefore, teachers must be able to master various learning models that can make students more active and able to capture the learning. So far, most learning processes always use learning models that are less varied such as lecture methods and continuous assignments, so that the learning process is too monotonous and only teacher-centered. And when providing material, many students do not understand what is conveyed by the teacher because students feel that mathematics learning is less interesting and boring so that students are less enthusiastic and less enthusiastic during learning and student learning outcomes also become low. In learning there are various kinds of learning models, one of which is the numeracy literacy learning model that will be applied to the learning process.

Research conducted by Rumiati, in 2021 entitled "Development of Numeracy Literacy-Based Learning Model Tools to Improve Understanding of Mathematical Concepts" Understanding of the concept of number patterns is still relatively low, students cannot understand how to change object configurations into number patterns. This study aims to produce learning tools, including learning program plans (RPP) and student activity sheets (LKPD) using a numeracy literacy-based discovery learning model. The research was conducted by involving class V students. This research is a development research using the ADDIE model (Analysis, Design, Development, Implementation and Evaluation). Data collection using questionnaires, observations, tests, and documents. The results showed that learning tools were feasible based on the assessment of validity aspects with an average RPP score of 4.3 or very good and LKPD of 4.2 or good category. Furthermore, from the practicality aspect, the average student response was obtained at 3.6 or the good category and the implementation of learning was obtained on average by 86%. The effectiveness aspect showed an increase in the completeness of understanding mathematical concepts from pretests by 36% and postes by 77%. These improvements include, the

ability to change the configuration of number pattern objects and determine nth term formulas. The conclusion of this study is that the learning tools for the numeracy literacy-based discovery learning model developed are feasible to use and can improve the understanding of mathematical concepts in number patterns.

Based on the results of sharing as initial information with the homeroom teacher of SD Negeri 156320 Simpang Tiga 2 there are several problems in students, where most grade V students are passive in participating in mathematics learning, only some students understand in every mathematics learning while others tend not to pay attention to the explanation from the teacher, students are less enthusiastic when mathematics lessons take place, Low feedback from students to the teacher's questions and explanations and concentration on mathematics lessons is lacking, students do not have the courage to ask things that have not been understood.

After studying the above problems, researchers are interested in providing solutions to teachers to use a numeracy literacy learning model called learning to solve problems using creative and innovative learning media according to student needs. According to Rumiati, (2021: 93) numeracy literacy is part of mathematics, with a component used sourced from the scope of mathematics in the curriculum. The steps in implementing the numeracy literacy learning model are very helpful in dealing with obstacles faced by teachers, not only the steps that are applied systematically and effectively are one of the advantages of the literacy and numeracy learning model.

Researchers hope and believe that the application of this numeracy literacy learning model can have a good influence on the progress of learning outcomes and can improve student learning outcomes in mathematics learning.

LITERATURE REVIEW

Learning Model

Effective learning is inseparable from the existence of active, creative and innovative teachers and the teacher's teaching style must attract the attention of students, create a lively

atmosphere and interesting learning, so teachers need to use a model as a reference that becomes a basis or reference in the implementation of the learning process so that all students participate actively and critically and learn more. Therefore, there is a need for a learning model that guides learning activities.

According to Milfayetty et al, (2018: 120) the learning model is a form of learning that is illustrated from beginning to end which is presented specifically by the teacher. Learning models can be grouped into social interaction models, information processing models, humanistic personality models, and behavior change models. As for Trianto, (2013: 142) that the learning model is a plan or a model that is used as a guide in planning learning in class or learning curriculum and determining learning aids such as books, films, computers, curriculum, and others.

Furthermore, the picture learning model is known from the beginning of learning, as well as according to Istarani and Pulungan, (2016: 247) the learning model is a form of learning that is illustrated from beginning to end which is usually delivered by a class teacher. A learning model has a strategy to achieve student competence through learning methods, methods and techniques.

From some of the opinions of the experts above, researchers concluded that the learning model is a learning plan from to the end that is presented as a guideline in class to achieve learning objectives and determine learning tools carried out by two actors, namely students and teachers.

Numeration Literacy Learning Model

Mature debriefing and mastery of concepts are a real challenge for teachers today. For example, in math lessons, teachers should emphasize and encourage students to use the conceptual material taught in solving real problems. As a result, students no longer feel that learning mathematics is just a waste of math lessons and assume that learning it is useless. Therefore, appropriate and innovative learning models are needed to improve students' math and reading skills. With the implementation of the right and new learning model, it is expected to

have a positive influence on students, namely the growth of students' reading and numeracy skills. Besides being able to count, students also need mathematics. In counting and literacy, students are required to be able to process numerical data, for example analyzing and understanding statements related to various types of numbers and symbols as a solution to problems in daily activities.

Therefore, teachers must be able to choose a learning model that suits the characteristics of students, so that students can focus on the material presented and learning becomes meaningful and mastery in using media. Therefore, the numeracy literacy learning model is also related to media. This is not only using one type of media but using a variety of media from conventional media to digital media. With regard to this condition, numeracy literacy can be a real concept and at the same time a creative pedagogic embodiment in the field of Education. In line with this numeracy literacy concept, where the numeracy literacy learning model is a learning developed on the basis of numeracy literacy components such as the diversity of student abilities both in terms of intelligence, learning styles, and learning capital.

Education is also one of the important things in human life in living their daily lives. Changes from traditional times to the era of globalization that is so rapid as it is today, especially in the 21st century, make education a human need as a creature who thinks in developing the potential that exists in him. So in achieving these needs and various goals, several aspects are needed, including literacy skills.

According to Barbosa et al, (2012: 424) In simple terms, literacy is the ability to read, write, and count and is applied to certain activities. Literacy can be the first step in understanding other basic literacy such as science literacy, numeracy, digital literacy, cultural and civic literacy, and financial literacy. Then numeracy is the ability to calculate mathematically to provide solutions to people's daily life problems. Numeracy skills are also one of the weapons to improve the quality of people in different areas of life. Therefore, according to Barbosa et al, (2012: 425) numeracy literacy is

part of mathematics, so that the components of the application of numeracy literacy cannot be separated from the material covered in mathematics.

Likewise, according to Patta & Muin, (2021: 21) numeracy literacy is the ability of a person or individual to use number concepts and mathematical calculation operation skills to solve everyday life math problems. Thus, numeracy literacy ability can be interpreted as proficiency in applying and interpreting various symbols and numbers that are manipulated in graphs or tables in the process of solving a problem in everyday life so that they can make the right decisions. In addition, good numeracy literacy skills are expected to provide a positive relationship with good mathematics learning outcomes. In order to improve the level of human quality, one of them is by learning. Then according to the Ministry of Education and Culture, (2017: 17) numeracy literacy is the knowledge and ability to use various numbers and symbols related to basic mathematics to solve practical everyday problems and then analyze the information presented in various forms and interpret the results of the analysis to make predictions and make decisions. Numeracy literacy is the ability of a person or individual to use number concepts and mathematical calculation operation skills to solve mathematical problems in everyday life then analyze the information presented in various forms and interpret the results of the analysis to make predictions and make decisions. So from some of the opinions of the experts above, researchers will apply the steps according to Meilina, namely: Help students understand the material, Connecting learning concepts, Encourage students to actively ask questions, Teach problem-solving strategies, Encourage students to think creatively, Using Graphic Organizers, Teaching QARs

According to Patta & Muin, (2021: 77) the numeracy literacy learning model has advantages and disadvantages, which are as follows:

Advantages of numeracy literacy learning model: Realizing effective learning situations, Improve creative and innovative

thinking skills, Able to use a variety of media, Practice communication and analysis skills.

Weaknesses of the numeracy literacy learning model: It requires a high level of skill, therefore teachers must always be ready to face it., Requires high concentration, If the teacher does not condition the class optimally, students who are less active will be left behind.

Learning Outcomes

Learning outcomes are needed as a tool to see student achievement in carrying out a learning process in the classroom. Seeing what skills students and teachers acquire, in other words, teachers must be able to transfer knowledge or information to students so that the knowledge obtained by students can be used in the implementation of life. This ability can be received by students with great effort in learning. Change efforts are based on whether the achievement of learning objectives set by teachers that play a role in improving student learning outcomes has been successful. According to Susanto, (2016: 14) Learning outcomes are the result of a process where many factors influence each other. Some of these factors affect the level of learning outcomes. Learning outcomes can be seen from a result that has been achieved from every aspect as well as where according to Hariyanto, (2019: 4) learning outcomes are certain skills or abilities in the cognitive, affective, and psychomotor domains that students achieve or obtain after following the teaching and learning

process. Similarly, according to Wulan & Marianus, (2022: 43), learning outcomes are new skills acquired by students after observing the teaching and learning process of certain subjects. New skills possessed by individuals are the result of teaching and learning activities within a certain period of time to achieve a goal. Learning outcomes are the level of student success in several factors such as cognitive, affective and psychomotor values where these changes through a teaching and learning process.

METHOD

Place and Time of Research

This research was carried out in SD Negeri 156320 Simpang Tiga 2 Learning Year 2022/2023 on Class V students. This research place is located in Simpang Tiga Village, Sirandorung District, Central Tapanuli Regency, North Sumatra. This research was carried out in the even semester of the 2022/2023 Learning Year, namely from April to May 2023.

Population and Sample

The population in this study is all students of SD Negeri 156320 Simpang Tiga 2 Learning Year 2022/2023 which amounts to 30 students. The sampling carried out in this study was by means of *purposive sampling*. It is said that *purposive sampling* is a sampling technique with certain considerations. So the sample in this study is all students of Class V SD Negeri 156320 Simpang Tiga 2 Learning Year 2022/2023.

Table 1. Distribution of the Number of Class V Students for the 2022/2023 Learning Year

No	Class V		Number of Students
	Male	Woman	
1	16	14	30

Research Methods

The analytical descriptive research method according to Sugiyono (2018: 3) is a method to obtain in-depth data, a data that contains meaning and can significantly affect the substance of the research. Which means that this method presents directly the nature of the relationship between researchers and participants

or objects and research subjects. This research uses a type of quantitative research with an experimental quantitative approach. Jakni opinion (2016: 68) experimental research is a study that tries to find causal relationships by manipulating independent variables and controlling the influences that cause invalid experimental results

and observing the impact of treatment or manipulation of el variabs.

Research Design

In experimental research, one important step is to create a research design. The design used in this study is Pre Experimental design where based on Jakni's opinion (2016: 70) The form of design used in this study is *Pre Experimental design* , namely *one group pretest-posttest design*. In this paradigm, there is a pretest before treatment so that the results of treatment

can be known more accurately, because it can compare with the situation before and after treatment.

Data Collection Technique

Data collection techniques used in this study are test, non-test, documentation and observation. The test is given by giving pre-test and post-test questions to respondents. Pre-test is given before treatment while post-test is given after giving treatment.

Table 2. Standard Test scores

Mastery Percentage	Value category	Value Criteria
100-85	A	Excellent
84-75	B	Good
74-60	C	Enough
59-40	D	Less
39-0	And	Bad

Questionnaire is a data collection technique by providing or distributing a list of questions to respondents (students). Sugiyono, (2019: 194) A questionnaire is a number of written questions used to obtain from respondents in the sense of reports about their person, or things they know. Questions or statements that will be given by researchers to students totaling 20 questions. In this study, researchers will use the Likert scale which is used to measure the attitudes, opinions, and perceptions of a person or group of people about social phenomena using a numeracy literacy learning model.

According to Arikunto et al, (2017: 274) Documentation is a data document about variables in the form of notes, transcripts, books, newspapers, magazines, inscriptions, meeting minutes, agendas, lengger. This documentation is to support research conducted at the research site. In this study, not all of the documents owned were targeted by researchers. Things that researchers need related to this documentation such as a list of student grades, books used by students in the learning process, notebooks and photos that are

relevant when conducting research in schools as research locations. From the completeness of this document, researchers can see student data, the number of students, teachers and staff, administration, classroom pictures, and research locations.

Validity Test

According to Sugiyono, (2019: 206) validity is the degree of accuracy between the data that occurs in the object of research and the power that can be reported by the researcher. Thus valid data is data "that does not differ" between the data reported by the researcher and the data that actually occurred in the object of research. To prove the data is feasible or not, the questions are tested using a formula 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 variables X and Y

$\sum xy$ = Number of multiplications x by y

N= Number of test takers

X= Trial result value

Y= Daily mean value

To determine whether or not an instrument is valid, the help of the SPSS *Version 25.0* program is needed and test criteria if the calculated price $\geq r_{table}$ with $\alpha = 0.05$ and n samples studied, then the measuring instrument is valid and vice versa if the calculation $\leq r_{table}$ then the measuring instrument is invalid. In this validity test, the price of r_{table} is 0.361 with a significant level of 5% and the number of students or N as much as 30.

Reliability Test

According to Yusuf, (2015: 59) reliability is an instrument pointing to the accuracy, consistency, or stability of the instrument / a measurement made. The alpha formula used to find the reliability of the instrument is:

$$r_{11} = \left(\frac{n}{n-1} \right) \left(\frac{s^2 - \sum pq}{s^2} \right)$$

Information:

r_{11} = Overall test reliability

p= Proportion of subjects who answered the item correctly

q= Proportion of subjects who answered the item incorrectly ($q = 1-p$)

$\sum pq$ = Number of results of multiplication p by q n = Many items

s^2 = Variance

A data is said to be reliable if it is $\geq r_{table}$. Vice versa, data is said to be unreliable if $r_{hitung} \leq r_{table}$

S_t^2 = varian total

To find the total variance used the following formula:

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

Information:

S_t = varian total

$\sum x$ = total score

$\sum x^2$ = sum of squares of questions

N= number of test taker learners

Normality Test

The data normality test conducted in this study used the Lilliefors Sudjana test, (2016: 466) with the following steps:

- Observations $X_1, X_2, \dots, X_n$ is made into the default number $Z_1, Z_2, \dots, Z_n$. using the formula $Z_1 = \frac{x_1 - \bar{x}}{s}$ ($\bar{x}$ and s are the mean and standard deviation of the sample, respectively)
- For each of these raw numbers and using the standard normal distribution list, then calculated the probability $F(z) = P(z \leq z_1)$
- Next is calculated the proportion of $Z_1, Z_2, \dots, Z_n$ which is more or equal to Z_1 . if this proportion is expressed by $S(z_1)$, then $S(Z_i) = \frac{\text{number of } Z_1, Z_2, \dots, Z_n \leq Z_i}{n}$
- Calculate the difference between $F(Z_i) - S(Z_i)$ and determine the absolute price.
- Take the largest price (Lo) among the absolute prices of the difference and then compare Lo with the critical value taken from the list for a real level of $\alpha = 0.05$.

Researchers use the help of SPSS with the following criteria:

- If the significance value $\geq$ real level (α) 0.05 then the data has a normally distributed variance
- If the significant value $\leq$ real level (α) 0.05 then the data has a normally distributed variance.

Correlation Test

To find out whether there is an influence between the independent variable (X) and the dependent variable (Y), there is also arequirement for the correlation coefficient test, namely by looking at t , calculate $\geq t_{table}$ or can be used formula *Product moment* correlation, which is 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} = Correlation Product moment

N= Number of X and Y data pairs

$\sum X$ = Total sum of variables x

$\sum X^2$ = Square of the total of the number of variables X

$\sum Y$ = Total sum of variables y

$\sum Y^2$ = Square of the total number of variables
Y

$\sum XY$ = Multiplication result of total "X" and total "Y"

Tabel 3. Interpretation of Correlation Test

Coefficient Interval	Relationship Level
0.00-0.199	Very Low
0.20-0.399	Low
0.40-0.599	Keep
0.60-0.799	Strong
0.80-1.000	Very Powerful

Test the hypothesis

Hypothesis testing is carried out to find out whether X has a significant (meaningful) relationship to variable Y is done by testing the hypothesis using uni-t as follows:

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

Information:

r = Correlation

n = Sample

t = Significant Level (t count)

The hypothesis is accepted, if $t_{hitung} \geq t_{tabel}$
so preferably, if $t_{hitung} \leq t_{tabel}$ then hypothesis is rejected.

The initial action taken by researchers is to give Pre-Test to students. This Pre-Test is conducted to determine the ability of students before being given treatment. The ability of student learning outcomes in understanding mathematics subjects in data collection and presentation materials, most students have not received scores with complete categories in accordance with the Maximum Completeness Criteria (KKM). Of the 30 students in class V, there were 2.5 students who got incomplete grades while 5 students who got complete scores. For more clarity about the results of class V Pre-Test scores, below the frequency table of class V Pre-Test scores can be seen briefly as follows:

RESULTS AND DISCUSSION

Class V Pre-Test Results

Table 4. Pre Test Data Frequency Distribution

X	F	FX	$X = X - \bar{X}$	X^2	FX^2
48	2	96	-13.43	180.45	360.90
52	6	312	-9.43	88.98	533.92
55	5	275	-6.43	41.387	206.93
58	3	174	-3.43	11.787	35.36
61	2	122	-0.43	0.18	0.375
64	4	256	2.56	6.58	26.35
68	3	204	6.56	43.12	129.36
77	1	77	15.56	242.32	242.32
81	3	243	19.56	382.85	1148.56
84	1	84	22.56	509.25	509.25
	30	1843	33.66	1506.94	3193.36

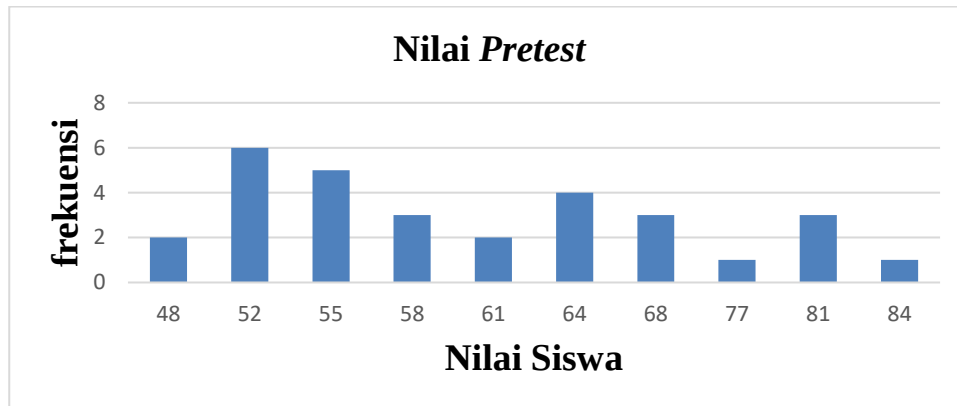


Figure 1. Histogram Distribution Frequency Pre Test Value

Based on the frequency distribution table, the highest value of class V pretest was 84 and the lowest value of 48 was obtained on average (Mean) of 61.43.

Class V Post Test Results

At the end of learning, all subject matter is taught using a problem-based learning model, then the researcher provides a posttest that aims to determine the success rate of the top. The action given is based on data obtained from

mathematical material on the presentation and processing of data using the numeracy literacy learning model above, it is known that the posttest value Class V has an average of 77.96 while KKM 70 can be concluded that the number of incomplete is 5 people and the complete number is 25 people. For more clarity about the results of the Post Test class V value, below the frequency table of the Post Test class V value can be seen briefly as follows:

Table 5. Frequency Distribution

X	F	FX	$X - \bar{X}$	X^2	FX^2
58	1	58	-19.96	398.66	398.66
61	1	61	-16.96	287.86	287.86
64	2	128	-13.96	195.06	390.13
68	1	68	-9.96	99.33	99.33
71	2	142	-6.96	48.53	97.06
74	3	222	-3.96	15.73	47.20
77	5	385	-0.96	0.93	4.67
81	6	486	3.03	9.20	55.20
84	3	252	6.03	36.40	109.20
90	3	270	77.96	6078.80	18236.4
93	1	93	15.03	226.00	226.00
	30	2339	29.3	7396.54	19951.76

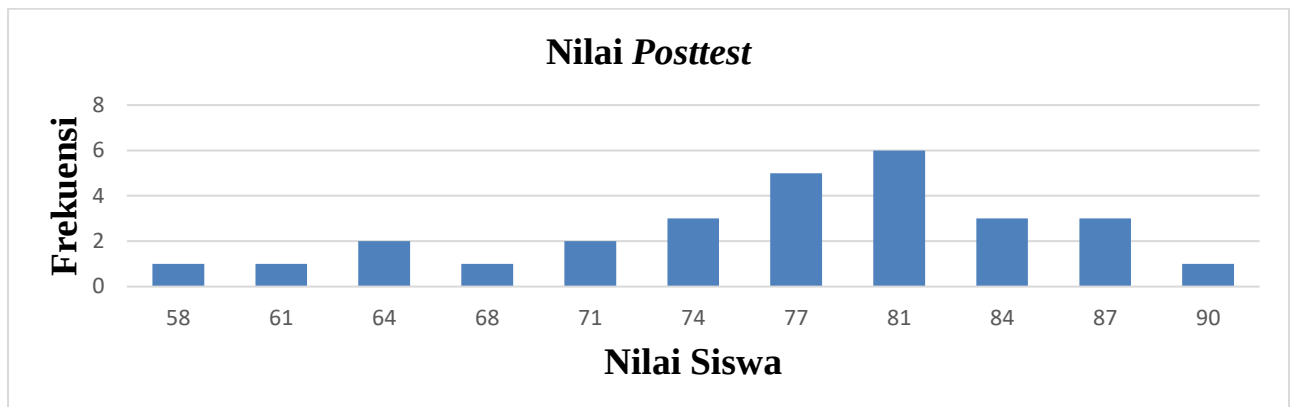


Figure 2. Histogram Distribution of Post Test Value Frequency

Based on the frequency distribution histogram, the highest value of class V pretest was 93 and the lowest value of 58 was obtained on average (Mean) of 77.96.

The results of the posttest score show that there is an increase in the completeness of

learning of grade V students. Where the average posttest score is 77.96 while the pretest value is 61.43. For more details, it can be seen from the average value of pretest and posttest in the diagram below:

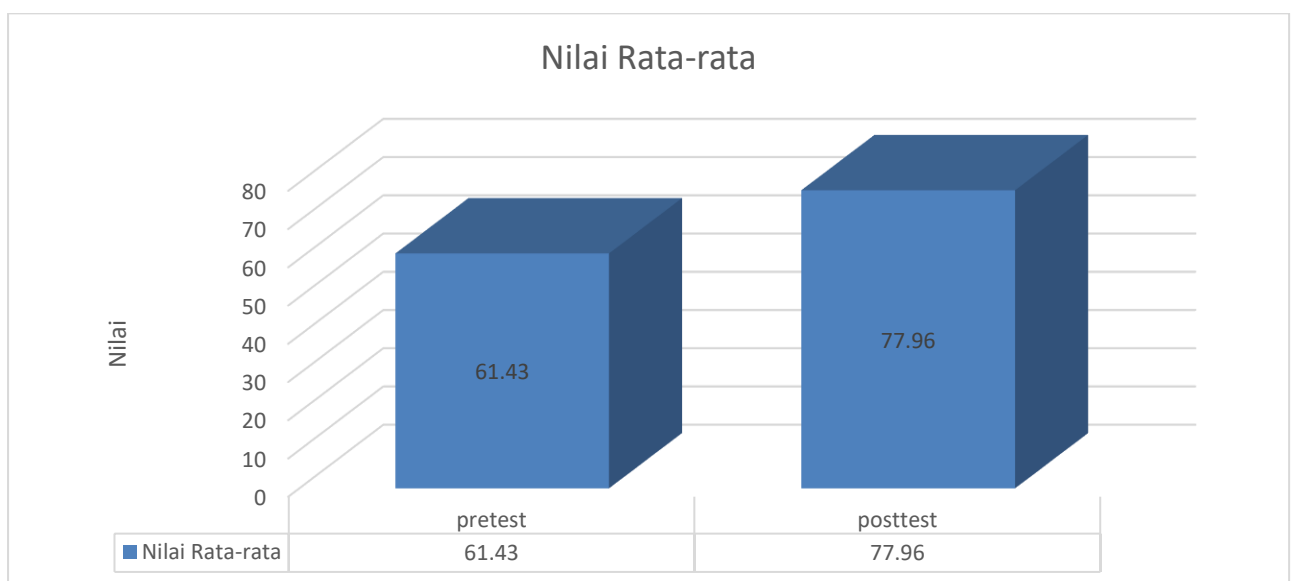


Figure 3. Pre Test and Post Test Average Score Diagram

Based on the diagram above, it can be seen that the average value of the posttest is higher than the average value of the pretest. Based on table 5. above, it can be seen that the

average value obtained is 77.96 with the Good category.

Mastery Learning Model Questionnaire Results At the end of the lesson, the researcher gave a questionnaire to students , this aims to

determine the success rate and how students are doing after being given learning using a model

Numeracy literacy learning.

Table 7. Frequency Distribution of Questionnaire Results

X	F	FX	$X - \bar{X}$ (Student grades. Mean)	X^2	FX^2
55	1	55	-12.83	164.69	164.69
56	1	56	-11.83	140.02	140.02
60	2	120	-7.83	61.36	122.72
61	1	61	-6.83	46.69	46.69
62	1	62	-5.83	34.02	34.02
63	1	63	-4.83	23.36	23.36
65	2	130	-2.83	8.02	16.05
67	4	268	-0.83	0.69	2.77
68	2	136	0.16	0.02	0.05
69	1	69	1.16	1.36	1.36
70	2	140	2.16	4.69	9.38
72	1	72	4.16	17.36	17.36
73	2	146	5.16	26.69	53.38
74	1	74	6.16	38.02	38.02
75	2	150	7.16	51.36	102.72
76	1	76	8.16	66.69	66.69
77	1	77	9.16	84.02	84.02
78	4	312	10.16	103.36	413.44

1,221 with an average of 67.83 with the highest value of 78, while the lowest value is 55 mean ideal (M_i) of 66.5 with ideal deviation (SD_i) amounted to 3.83. For more details can be seen from the diagram below:

Normality Test

The normality test is used to determine whether the data of the class V posttest results are normally distributed or not A normality test is carried out using the Liliefors test. Here are the calculation results of SPSS Version 25:

Table 8. Tests of Normality

	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
	Statistic	Df	Itself.	Statistic	Df	Itself.
Learning Outcomes	.133	30	.186	.962	30	.343

Based on the results of the Liliefors test , a significance of 0.343 was obtained where the significant level used by researchers was a

significance level of 5% or 0.05. Based on the Liliefors test (*Kolmogorof Smirnov*) decision making using a 5% sigifikan level is nsignificant

value (sig) ≥ 0.05 which is $0.343 \geq 0.05$ then the class V data is normally distributed.

Coleration Coefficient Test

The correlation coefficient test determines the presence or absence of influence

between the independent variable (X) and the dependent variable (Y) and the conditions for the moment correlation coefficient test that is with see $t \text{ count} \geq t \text{ table}$ with formula Correlation product are:

Table 9. Learning Outcomes Correlation Coefficient Test Results

No	X	And	X ²	Y ²	XY
1	55	58	3025	3364	3190
2	56	61	3136	3721	3416
3	60	64	3600	4096	3840
4	60	64	3600	4096	3840
5	61	68	3721	4624	4148
6	62	71	3844	5041	4402
7	63	71	3969	5041	4473
8	65	74	4225	5476	4810
9	65	74	4225	5476	4810
10	67	74	4489	5476	4958
11	67	77	4489	5929	5159
12	67	77	4489	5929	5159
13	67	77	4489	5929	5159
14	68	77	4624	5929	5236
15	68	77	4624	5929	5236
16	69	81	4761	6561	5589
17	70	81	4900	6561	5670
18	70	81	4900	6561	5670
19	72	81	5184	6561	5832
20	73	81	5329	6561	5913
21	73	81	5329	6561	5913
22	74	84	5476	7056	6216
23	75	84	5625	7056	6300
24	75	84	5625	7056	6300
25	76	87	5776	7569	6612
26	77	87	5929	7569	6699
27	77	90	5929	8100	6930
28	78	90	6084	8100	7020
29	78	90	6084	8100	7020
30	78	93	6084	8649	7254
N=30	2066	2339	143564	184677	162774

$N = 30$
 $\Sigma X = 2,066$
 $\Sigma Y = 2,339$
 $\Sigma X^2 = 143,564$
 $\Sigma Y^2 = 184,677$
 $\Sigma XY = 162,774$

To see the influence of the two variables can be done by comparing between rcalculate and rtable. From the calculation above manually, we

can see the value of the correlation coefficient of 0.983. Below is the SPSS-assisted correlation coefficient test version 25.

Table 10. Coleration Coefficient Test

		The Effect of Numeration Literacy	Learning Outcomes
The Effect of Numeration Literacy	Pearson Correlation	1	.983**
	Sig. (2-tailed)		.000
Learning Outcomes	N	30	30
	Pearson Correlation	.983**	1
	Sig. (2-tailed)	.000	
	N	30	30

From the table above shows that the value of the correlation coefficient is 0.983. If r calculate rtable. rcount (0.983) rtable (0.361). So there is 98.3% influence between numeracy literacy learning models on student learning outcomes and 1.7% influence of other factors. It can be concluded that there is a strong influence between the numeracy literacy model on the learning outcomes of grade V students of SD Negeri 156320 Simpang Tiga 2.

Hypothesis Testing

If the data is declared normally distributed and the sample comes from the same population or homogeneous, then the statistical "t-test" used to test the hypothesis is the t-test, then the hypothesis proposed is:

Ha : There is an influence of the numeracy literacy learning model on student learning outcomes

Ho : There is no influence of the numeracy literacy learning model on student learning outcomes.

Table 12. T-Test Results

Model	Unstandardized Coefficients		Standardized Coefficients	T	Itself.
	B	Std. Error	Beta		
1 (Constant)	-12.833	3.227		-3.977	.000
The Effect of Numeration Literacy	1.318	.047	.983	28.266	.000

a. Dependent Variable: Learning Outcomes

To determine whether there is an influence can be seen significant results obtained from the t-test calculation of SPSS ver 25 of 28.266. To find out whether the hypothesis is

accepted or rejected, $t_{\text{calculate}} \geq t_{\text{table}}$, which is $28,266 \geq 1,697$ which means that there is an influence of the Numeration Literacy learning model on student learning outcomes.

The result of the manual sig fig-test above is 28.266 so it can be known from the value of $t_{\text{calculate}} > t_{\text{table}}$ which is $28.266 > 1,697$ which means that there is a positive influence of the Numeracy Literacy learning model on student learning outcomes.

Discussion of Research Results

This research was conducted at SD Negeri 156320 Simpang Tiga 2, Sirandorung District. To determine the initial ability of students, researchers conducted a pretest with the number of multiple-choice questions and with the same type of questions, obtained results with an average of 61.43 so that it can be said that the initial ability failed. After conducting the pretest, researchers delivered the material using the numeracy literacy learning model. At the end of the lesson, the researcher again gave a posttest to determine the success rate. The results of the posttest have increased success from the pretest results given earlier. The posttest results that have been tested are 77.69 so that it can be said that the success rate of student learning outcomes has increased. Researchers also used questionnaires as a data collection tool with a total research sample of 30 students. The purpose of conducting this study was to determine how much influence the numeracy literacy learning model had on grade V students at SD Negeri 156320 Simpang Tiga 2.

a. Validity Test

The processing of validity test data is known that from the 40 number of questions there are 31 valid questions and it is known that from the 30 number of existing questionnaires there are 20 valid questionnaires. Based on the results of this validity, it can be seen that the number of questions and questionnaires that are already valid researchers can continue research.

b. Based on the results of the reliability test of the questions above, the reliability level of the questions is 0.899 is between 0.800-1.000 (very strong). Based on the results of the reliability test of the numeracy literacy model questionnaire above the reliability level of the teacher's role, which is 0.816, it is between 0.800-1.000 (very strong)

c. Normality Test

From the results of data processing, the significance value is 0.186. Based on the results of these calculations, it can be seen that the significance value of the numeracy literacy learning model on student learning outcomes is greater than 0.05, it can be concluded that Data from the numeracy literacy learning model on student learning outcomes are normally distributed.

d. Correlation Test

The results of this study show that the numeracy literacy learning model has an influence on student learning outcomes. This is evident from the value of r_{xy} 0.983. Based on the r -value interpretation table, the correlation r_{xy} 0.983 lies in the range of r value 0.800-1.000, then, it can be concluded the level of relationship between the variables of the numeracy literacy learning model With student learning outcomes have a strong influence.

e. Test the hypothesis

Numeracy literacy learning model is a model that has a positive impact on student learning outcomes through the behavior or actions of a teacher to transfer knowledge, then the model used Teachers play a very important role in the education of students at school because a teacher has many roles at once, one of which is as a motivator, namely providing encouragement to students To be more enthusiastic in following the learning process. Based on the results of this study, it shows that the numeracy literacy learning model has a positive and significant influence, this is evident from the value of $t_{\text{calculated}} \geq t_{\text{in table}}$ as big as $28,266 \geq 1,697$. So such H_a accepted that there is a significant influence between the numeracy literacy learning model (X) and student learning outcomes (Y).

CONCLUSIONS AND RECOMMENDATION

Based on the discussion of this chapter, the researcher elaborates on the conclusions and suggestions compiled based on all research activities regarding the Effect of the Numeracy Literacy Learning Model on the Mathematics Learning Outcomes of Class V Students of SD Negeri 156320 Simpang Tiga 2 Learning Years 2022/2023 as follows. Based on the results of

data analysis and hypothesis testing and discussion, the following conclusions can be drawn:

1. In class V with model numeracy literacy learning on the results of student mathematics learning in grade V SD Negeri 156320 Simpang Tiga 2 Kec. S irandorung Kab. Tapanuli Mid-learning year 2022/2023 obtained an average pretest score of 61.43 with the failing category
2. By using numeration literacy learning on the mathematics learning outcomes of students in grade V SD Negeri 156320 Simpang Tiga 2 Kec. S irandorung Kab. Tapanuli Middle learning year 202 2/2023 was obtained from learning outcomes that improved with an average posttest score of 7 7.96 with good category.
3. In class V a questionnaire was given in accordance with the steps of numeration literacy learning on the mathematics learning outcomes of students in grade V SD Negeri 156320 Simpang Tiga 2 Kec. S irandorung Kab. Tapanuli Mid-learning year 202 2/2023 was obtained from the results of student questionnaires with an average text questionnaire of 67.83 with good categories.
4. Based on the results of normality using the Kolmogorov-smirnov test with a result of $0.343 \geq 0.05$ which can be said to be a normal distribution. Based on the correlation coefficient test, it can be seen that the correlation value is $t_{\text{calculate}} \geq t_{\text{table}}$ $0.983 \geq 0.361$. So there is a strong influence and there is an influence on numeracy literacy learning on the mathematics learning outcomes of students in grade V SD Negeri 156320 Simpang Tiga 2 Kec. S irandorung Kab. Tapanuli Middle of the learning year 202 2/2023 with $t_{\text{count}} \geq t_{\text{table}}$ where $28.266 \geq 1.697$ at a significant level $\alpha 0.05$. Students with math lessons, thus H_a accepted H_o rejected

As for the suggestions that can be conveyed

1. For Schools
Schools, especially teachers, must provide more guidance to students and teachers must be more aware of their role in the

school environment and teachers should pay more attention to each difficulty experienced by students because each student must have different understandings and learning problems .

2. For Students
After knowing that there is an influence on the role of teachers with learning outcomes, students are expected to better understand learning and play time, and students are expected to remain enthusiastic about learning and instilling curiosities.
3. For the Next Researcher
Furthermore, in order to be able to study further about the influence of the role of teachers on student learning outcomes at SD Negeri 156320 Simpang Tiga 2.

This study shows that student learning outcomes using the numeracy literacy learning model are more effective than using the numeracy literacy learning model. Therefore, in improving student learning outcomes, it is necessary to utilize a learning model that can focus students' attention, especially mathematics subjects on the collection material and data presentation, one of which is the numeracy literacy learning model displayed by researchers.

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