



THE EFFECT OF THE MASTERY LEARNING MODEL ON THE STUDENTS' LEARNING OUTCOMES AT CLASS V OF PUBLIC ELEMENTARY SCHOOL 097795 PERASMIAN

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ABSTRACT

This paper discusses the effect of applying the mastery learning model on students' learning outcomes on the theme of our friendly environment at class V of SD Negeri 097795 Perasmian in the academic year 2022/2023. The research uses quantitative methods. The research population is 132 entire students at class I-VI of SD Negeri 097795 Perasmian. The sampling technique uses a purposive sample and the sample used is 39 students at class V. The research results indicate that students' learning outcomes applying the mastery learning model are included in the excellent category level with an average of 80.5 with a correlation test result of 0.951, which means $r_{count} (0.951) \geq r_{table} (0.361)$, then H_a is accepted. Thus, there is an intense effect of applying the mastery learning model on students' learning outcomes on the theme of our friendly environment at class V of SD Negeri 097795 Perasmian. It can be seen from the T-test results where $t_{count} 2,665 \geq t_{table} 2,048$, hence H_a is accepted. It implies that there is a significant positive effect from the application of the mastery learning model on students' learning outcomes on the theme of our friendly environment at class V SD Negeri 097795 Perasmian in the academic year 2022/2023.

Keywords: students' learning outcomes, mastery learning model, elementary students

PENGARUH MODEL PEMBELAJARAN MASTERY LEARNING TERHADAP HASIL BELAJAR PESERTA DIDIK KELAS V SD NEGERI 097795 PERASMIAN

ABSTRAK

Artikel ini membahas pengaruh penggunaan model pembelajaran *Mastery Learning* terhadap hasil belajar peserta didik pada tema lingkungan sahabat kita di kelas V SD Negeri 097795 Perasmian tahun pembelajaran 2022/2023. Penelitian menggunakan metode kuantitatif. Populasi penelitian adalah 132 seluruh peserta didik kelas I-VI SD Negeri 097795 Perasmian. Pengambilan sampel dengan menggunakan sampel *purposive* dan sampel yang digunakan adalah 39 peserta didik kelas V. Hasil penelitian menunjukkan bahwa hasil belajar peserta didik dengan menggunakan model *Mastery Learning* termasuk dalam kategori sangat baik dengan rata-rata 80,5 dengan hasil uji korelasi sebesar 0.951 yang artinya $r_{hitung} (0.951) \geq r_{tabel} (0.361)$ maka H_a diterima. Maka terdapat pengaruh yang sangat kuat antara penggunaan model pembelajaran *Mastery Learning* terhadap hasil belajar peserta didik pada tema lingkungan sahabat kita di kelas V SD Negeri 097795 Perasmian. Dapat dilihat dari hasil penelitian uji-T dimana $t_{hitung} \geq t_{tabel}$ yaitu $2.665 \geq 2.048$ sehingga dapat dinyatakan bahwa H_a diterima. Hal ini menunjukkan bahwa adanya pengaruh positif yang signifikan dari penggunaan model pembelajaran *Mastery Learning* terhadap hasil belajar peserta didik pada tema lingkungan sahabat kita di kelas V SD Negeri 097795 Perasmian tahun pembelajaran 2022/2023.

Kata Kunci: hasil belajar siswa, model pembelajaran mastery learning, siswa sekolah dasar

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INTRODUCTION

Education is a form of effort to help humans gain a meaningful life, so that a happy life is obtained both individually and in groups. Education provides opportunities for students to build and develop their potential to become quality human beings. In educational staff,

educators must be able to create an interesting and fun learning atmosphere in order to support the progress of the nation.

According to Law no. 20 of 2003 "National education functions to develop capabilities and shape dignified character and

national civilization in order to educate the life of the nation, which aims to develop the potential of students to become human beings who believe and fear God Almighty, have noble character, are healthy, knowledgeable, capable, creative, independent, and become a democratic and responsible citizen". In this sense, students must be able to develop their potential to become human beings expected by many people through the teaching given by their teacher.

The teacher has an important role in the teaching and learning process, because the teacher can determine the success or failure of a teaching and learning process. Therefore, in the educational process, teachers are needed who are able to transfer a number of knowledge to students. Teachers must be able to master the subject matter, teaching methods and appropriate strategies in a subject matter. This is very important for the teacher to know in carrying out his duties as an educator, because the teacher is a determining component of the success of his students.

According to Sanjaya (2013) suggests that the teacher is a very decisive component in the implementation of a learning strategy. If there is no teacher, however good and ideal a learning strategy is, then the strategy cannot be applied optimally. The successful implementation of a lesson will depend on the teacher's ability to use learning methods, techniques and tactics. According to Silaban & Hasibuan (2021) that "quality learning is very dependent on student motivation and teacher creativity. This requires teachers to be able to apply all methods, techniques and teaching tactics that are interesting and in accordance with the demands of the applicable curriculum.

The curriculum is not only limited to the fields of study in it and learning activities, but includes everything that influences the personal development and formation of students in accordance with educational goals to be achieved so as to advance the quality of education. According to Hamalik (2022) that "curriculum is a program provided for students. Therefore, the curriculum must contain something that is useful for students. The curriculum must contain planning and arrangement regarding learning

materials that can be applied in teaching and learning activities. The curriculum is a guideline for teachers and students so that the teaching and learning process can be carried out properly to achieve educational goals. The curriculum requires teachers and students to be active, creative and innovative. Every student must be able to use the knowledge he has acquired in everyday life. Therefore, the teacher must be able to become a good facilitator to channel knowledge to his students. To realize the demands of the curriculum, there are many ways that teachers can do in the teaching and learning process, one of which is by implementing creative and innovative learning models.

Based on the results of the initial observations that I made at SD Negeri 097795 Parasmian, teachers still use learning models that are less varied. This means that teachers who play an active role in conveying subject matter, teachers tell stories and students listen to what the teacher says. Students will sit quietly listening to the teacher's explanation. This causes students not to fully participate actively when the teaching and learning process takes place. Students tend to feel bored because the delivery of material that is applied by the teacher is less varied. To get rid of the boredom, these students will look for busyness by playing and doing other activities that are not related to the material presented by the teacher.

This triggers students not to understand the lessons taught by the teacher. When the teacher conveys the lesson, the student learning outcomes are still in the low category and do not meet the specified Minimum Completeness Criteria (KKM). The research results of Muhtar, E. M. (2016), that learning outcomes have increased, this is evidenced by: (a) the initial data of students who achieved completeness was only 50% and the first cycle of improvement had reached 76% and class completeness in the second cycle was 90% ; and (b) student learning outcomes also increased with an average initial score of 65 students, cycle I became 68.25 and cycle II increased to 74.5. Therefore it can be concluded that the mastery learning learning model can improve learning outcomes.

Thus, one of the solutions that can be used is to apply the Mastery Learning learning model (complete learning). Because this Mastery Learning learning model can invite students to master the teaching material thoroughly. In line with the opinion of Zein (2014: 14) in his book about Mastery Learning that "Mastery Learning can be interpreted as students' mastery of all the material that has been studied". In this case, students will thoroughly master the lessons presented by the teacher. The teacher must be able to master the class, know the needs of students and study the character of students. If this has been implemented, it will be easier for the teacher to provide appropriate lessons to each student so that the research objective is to have a significant influence of the Mastery Learning learning model on student learning outcomes.

LITERATURE REVIEW

Learning model

Many efforts are made by educators to make the teaching and learning process run well in order to achieve the expected learning objectives. Silaban (2019) states that "the selection of learning models is adjusted to the level of understanding of students, learning objectives and learning materials in order to create more meaningful learning so as to obtain optimal results". This is done so that the subject matter being taught is conveyed to students using the learning model set by the teacher.

Khoerunnisa & Aqwal (2020) argues that "A learning model is a plan or pattern that can be used to form a curriculum (learning plan), so that teaching and learning activities are better". The learning model is one of the important components in learning which contains a whole series of teaching material presentations which cover all aspects before, during and after learning which are used to form a curriculum or lesson plan so that teaching and learning activities are better.

Mastery Learning Learning Model

The history of the concept of complete learning or Mastery Learning was developed by John B. Carroll and Benjamin Bloom. Bloom defines that "complete learning is based on the

assumption that most students can achieve high-level learning abilities if learning is approached sensitively and systematically".

According to Zein (2014: 14) that "complete learning (Mastery Learning) is student mastery of all the material that has been studied". In line with the opinion of Wahyuningsih (2020: 7) that mastery learning is full mastery of students over all the subjects studied, so every student in the class will completely master the lessons prepared by the teacher. Complete learning (Mastery Learning) is a learning model that requires students to fully master all the material being studied as long as students are given study time according to their needs so that each child will thoroughly master the lessons presented.

According to Ranggoana (2018) the steps of mastery learning that need to be observed are as follows:

1. Orientation, at this orientation stage, a framework for learning content is determined. At this stage the teacher explains the learning objectives, then explains the subject matter and the teacher discusses the various components of the learning content and the expected responsibilities of students during the learning process.
2. Presentation, in this stage the teacher explains the concepts or material to be studied. At this stage the teacher will teach the material using both visual and audio-visual learning media that the teacher has prepared. At this stage, an evaluation is made of how far the students have understood the material being taught. thus, students will not experience difficulties at the next training stage.
3. Structured exercise, at this stage the teacher gives students examples of practical problem solving in the form of important steps in stages. At this stage students need to be asked a number of questions, then the teacher straightens out the answers given by students.
4. Guided practice, at this stage the teacher provides opportunities for students to practice solving a problem, but still under the guidance of the teacher. Through this guided activity, the teacher can assess students' abilities in completing the tasks given and the teacher can see student mistakes.

5. Independent practice, at this independent stage, is the core of the Mastery Learning strategy. Independent training is carried out when students have achieved the KKM score set by the school. The role of the teacher at this stage assesses the work of the students after the students have finished answering the questions given by the teacher.

According to Suciana (2019) the advantages and disadvantages of Mastery Learning are as follows:

Pros of Mastery Learning:

1. Mastery Learning allows students to learn more actively as suggested in the concept of education which gives students the opportunity to develop themselves by discovering and working on their own.
2. In this Mastery Learning, teachers and students are asked to work together in a participatory and persuasive manner, both in the learning process and in the process of guiding other students.
3. Mastery Learning is oriented towards increasing the productivity of learning outcomes, namely students who master the subject matter thoroughly, thoroughly and intact.
4. In essence, Mastery Learning does not recognize students who fail to learn or do not go to class because students who turn out to be getting unsatisfactory results or are still below the expected target results, are continuously assisted by their colleagues and by the teacher.

Weaknesses or disadvantages of Mastery Learning:

1. This learning is difficult in practice because it involves various activities, which means that it demands a variety of adequate abilities.
2. Teachers who are used to old ways will experience obstacles to implementing this complete learning model which is relatively more difficult.
3. This learning certainly requires a large number of facilities, equipment, tools, funds and time, while schools in general are still minimal in terms of technical resources as expected.

Learning outcomes

To find out the extent to which students' knowledge of the subject matter can be seen from the learning outcomes of students. student learning outcomes can be seen when educators give tests to students to find out how much the level of ability of students in learning. According to Silaban (2019) with learning outcomes, teachers can find out whether students have reached the Minimum Completeness Criteria (KKM) that have been set. The high and low learning outcomes of students can show the success of the teacher in conveying the subject matter.

According to Sutanto (2013) that "learning outcomes are abilities that children acquire after going through learning activities". After the educator conveys the learning material, then the educator will give tests to students in the form of assessments. According to Nurrita (2018) that "learning outcomes are the results given to students in the form of assessments after participating in the learning process by assessing knowledge, attitudes, skills in students with changes in behavior". According to Oemar Hamalik (2013) states that "the result of learning is when someone has learned there will be a change in behavior in that person". Students' learning outcomes can be measured from the abilities or results obtained by children after participating in the learning process by assessing the knowledge, attitudes and skills of students with changes in the behavior of these students.

REASERCH METHOD

Place and time of research

This research was conducted at SD Negeri 097795 Inauguration of the 2022/2023 Academic Year for Class V students. The location of this research is Perasmian Village, Dolok Silau District, Simalungun Regency, North Sumatra. This research was conducted in the even semester of the 2022/2023 Academic Year, namely from January to June 2023.

Population and Sample

The population in this study were all students of SD Negeri 097795 Inauguration of the 2022/2023 Academic Year, a total of 132

students. Sampling was carried out in this study by means of purposive sampling. It is said that purposive sampling is a sampling technique with

certain considerations. So the samples in this study were Class V students at SD Negeri 097795 Inauguration of the 2022/2023 Academic Year.

Table 1. Distribution of the number of Class V students for the 2022/2023 Academic Year

No	Class	Number of Students
1	I	15
2	II	16
3	III	21
4	IV	30
5	V	30
6	VI	20

Research methods

Sugiyono (2018: 1) emphasized that "The research method is defined as a scientific way to obtain data with specific purposes and uses". This type of research used by researchers is the experimental method. Sugiyono (2018: 111) argues that "The experimental method is a quantitative research method used to determine the effect of the independent variable (treatment/treatment) on the dependent variable (outcome) under controlled conditions.

Research design

There are several forms of experimental design, namely Pre-Experimental Design, True Experimental Design, Factorial Design, and Quasi Experimental Design. There are 3 design forms of Pre-Experimental Design, namely One-Shot Case

Study, One-Goup Pretest-Posttest and Intact-Group Comparison. The design used by researchers in this study is 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 being given treatment.

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.

Table 2. Standard Test scores

Mastery Presentation	Value category	Value Criteria
100-85	A	Very good
84-75	B	Good
74-60	C	Enough
59-40	D	Not enough
39-0	E	Not good

Questionnaire is a data collection technique by providing or distributing a list of questions to respondents. In this study researchers will use a Likert scale. Sugiyono (2020: 93)

suggests that "the Likert scale is used to measure attitudes, opinions, and perceptions of a person or group of people about social phenomena". In this study using the Mastery Learning learning model

in determining the value or attitude in each answer contained in the questionnaire that will be given

Arikunto (2021) argues that "Documentation is finding data regarding matters or variables in the form of notes, transcripts, books, newspapers, magazines, inscriptions, meeting minutes, appointments, agendas, and others." In this study, researchers used documentation in the form of past student learning outcomes, as well as photographs to be taken in this study. This researcher uses a documentation study to prove that the researcher did the research at the school.

Validity test

Arikunto (2021: 211) argues that "Validity is a measure that shows the levels of validity or validity of an instrument". A valid instrument has high validity. Conversely, an instrument that is not valid means it 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 = The number of test takers

X = The number of scores obtained by students for each statement item

Y = Total score sum

In order to determine whether an instrument is valid or not, assistance from the SPSS Version 22.0 program is needed with the following conditions:

1. If $r_{count} \geq r_{table}$ with a significance level of 0.05, then the instrument is valid.
2. If $r_{count} \leq r_{table}$ with a significance level of 0.05, then the instrument is invalid.

Reliability Test

The reliability test is needed in a study, because the reliability test can show the extent to which an instrument can be trusted even though it

has been used repeatedly. This agrees with Farida & Musyarofah (2021) that "reliability is a coefficient that shows the extent to which an instrument/measuring device can be trusted, meaning that if an instrument is used repeatedly to measure the same thing, the results are relatively stable or consistent." This means that a study can be relied upon if the measurement results are the same and do not change. To test reliability, the Kuder-Richardson formula or the KR-20 formula is used, namely:

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

Information:

r_i = instrument reliability

k = the number of items in the instrument

p = the proportion of the number of subjects who answered correctly

q = $1 - p_i$ (the proportion of the number of subjects who answered incorrectly)

S_t^2 = total variant

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 variant

$\sum x$ = total score

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

N = the number of students taking the test

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). To find out whether the data is normally distributed or not, the researcher uses the Kolmogrov-Smirnov analysis with the help of the SPSS version 22.0 program. The calculation results show that the data is normally distributed if the Asymp. sign greater than $0.05 \geq 0.05$. Conversely, if the Asymp. sign less than equal to $0.05 \geq 0.05$ then the data can be said to be not normally distributed. Asymp value. This sign tests the significance of the results of the Kolmogov-Smirnov test. The data normality test carried out

in this study used the liliefors test, (Sudjana, 2018: 466)

- Observations X_1, X_2, \dots, X_n is used as a standard number Z_1, Z_2, \dots, Z_n using the formula $Z_1 = \frac{X_i - \bar{X}}{SD}$
- For each of these standard numbers and using the standard normal distribution list, then calculate the probability $F(z_i) = P(Z \geq Z_i)$
- Next, the proportions Z_1, Z_2, \dots, Z_n which is less than or equal to Z_i . If this proportion is denoted by $S(Z_i)$, then $S(Z_i) = \frac{\text{banyaknya } Z_1, Z_2, \dots, Z_n}{n}$
- Calculate the difference $F(Z_i) - S(Z_i)$ then determine the absolute price.
- Take the absolute value of the spread (L_0) to accept or reject the hypothesis, then compare L_0 with the critical value taken from the list, for the significance level $\alpha = 0.05$.

By criteria:

if $L_{\text{count}} \leq L_{\text{table}}$ then the sample is not normally distributed

If $L_{\text{count}} \geq L_{\text{table}}$ then the sample is normally distributed.

Correlation Test

The correlation coefficient test is used to determine whether or not there is an influence between the independent variables and the dependent variable. The requirement to test the correlation coefficient is to see $t_{\text{count}} \geq t_{\text{table}}$ or you can also use 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:

r_{XY} = Coefficient of Product moment correlation

N = The total number of students

$\sum X$ = Item score

$\sum Y$ = Total score of all students

$\sum XY$ = Multiplication of "X" scores and "Y" scores

Table 3. 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 testing

To find out that X has a significant influence on 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 Questionnaire

n = Sample

to find out whether the hypothesis is accepted (H_a) then $t_{\text{count}} \geq t_{\text{table}}$ and vice versa $t_{\text{count}} \geq t_{\text{table}}$ then the hypothesis is rejected (H_0).

RESULTS AND DISCUSSION

Class V Pre-Test Results

The initial action taken by the researcher was to give the Pre-Test to the students. This pre-test was conducted to determine the ability of students before being given treatment. the ability of students' learning outcomes in understanding the material on theme 8 of our friend's environment sub-theme 1 of learning 2, most of the students have not got grades in the complete category according to the Maximum Completeness Criteria (KKM). Of the 30 students in class V, there were 28 students who received incomplete grades, while 2 students who received

complete grades. To make it clearer about the results of the class V Pre-Test values, below is the table of the frequency of class V Pre-Test

values briefly as follows:

Table 4. Frequency Distribution of Pre Test Data

X	F	FX	X-X- \bar{x}	X ²	FX ²
20	2	40	-20.36	414.5296	829.0592
23	2	46	-17.36	301.3696	602.7392
27	3	81	-13.36	178.4896	535.4688
30	1	30	-10.36	107.3296	107.3296
33	2	66	-7.36	54.1696	108.3392
37	5	185	-3.36	11.2896	56.448
40	3	120	-0.36	0.1296	0.3888
43	6	258	2.64	6.9696	41.8176
53	2	106	12.64	159.7696	319.5392
63	1	63	22.64	512.5696	512.5696
67	1	67	26.64	709.6896	709.6896
73	1	73	32.64	1065.3696	1065.3696
76	1	76	35.64	1270.2096	1270.2096
	$\Sigma F= 30$	$\Sigma FX=1211$	$\Sigma X=60.32$	$\Sigma X^2=4791.885$	$\Sigma FX^2=6158.968$

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

a. Average(mean)

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

Information:

M_x = Means that are sought

$\sum fx$ = The sum of the results between the midpoints of each interval, and the frequency.

n = Number of students

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

$$M_x = \frac{1.211}{30}$$

$$M_x = 40.36$$

b. Standard Deviation

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

Information:

SD = Standard Deviation

$\sum fx$ = The sum of the research results between the midpoints of each interval, with their frequency

n = Jumlah Number of students

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

$$SD = \sqrt{\frac{6158.968}{30}}$$

$$SD = \sqrt{205.298}$$

$$SD = 14.32$$

c. Standar Error

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

Information:

SE_m = Means that are sought

SD = Standard Deviation of the sample studied

n = Number of students

I = Constant Numbers

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

$$SE_m = \frac{14.32}{\sqrt{30-1}}$$

$$SE_m = \frac{14.32}{\sqrt{29}}$$

$$SE_m = \frac{14.32}{5.3}$$

$$SE_m = 2.70$$

To find out the success rate of the given action, the results of the students' Pre-test scores can be seen from the picture below

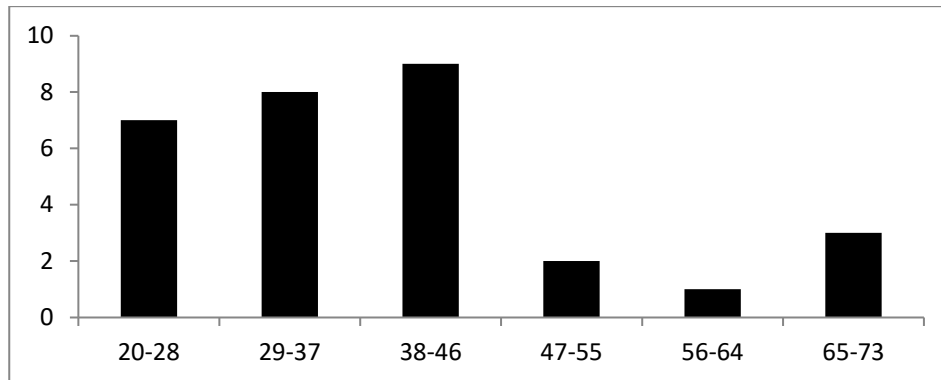


Figure 1. Histogram of Pre Test Value Frequency Distribution

Based on the frequency of the histogram above, it can be seen that the Pre Test scores of students on 7 respondents obtained a score of around 20-28 at 10%, 8 respondents obtained a score of around 29-37 at 27%, 9 respondents obtained a score of around 38-46 at 30%, 2 respondents got a score of around 47-55 at 7%, 1 respondent got a score of 56-64 at 3% and 3 respondents got a score of 65-73 at 10%.

Class V Post Test Results

After all the lessons have been taught using the Mastery Learning learning model, then the researcher gives a Post Test which aims to determine the level of success of the actions given.

Table 5. Frequency Distribution

X	F	FX	$X-x-\bar{x}$	X^2	FX^2
66	1	66	-14.5	210.25	210.25
69	1	69	-11.5	132.25	132.25
70	2	140	-10.5	110.25	220.5
73	2	146	-7.5	56.25	112.5
77	5	385	-3.5	12.25	61.25
80	6	480	-0.5	0.25	1.5
83	5	415	2.5	6.25	31.25
87	4	348	6.5	42.25	169
90	2	180	9.5	90.25	180.5
93	2	186	12.5	156.25	312.5
Total	$\Sigma F=30$	$\Sigma FX=2415$		$\Sigma X^2=816.5$	$\Sigma FX^2=1431.5$

Berdasarkan data di atas maka dapat mean, standar deviasi dan standar error sebagai berikut:

a. Average(mean)

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

Information:

M_x = Means that are sought

$\sum fx$ = The sum of the results between the midpoints of each interval, and the frequency.

n = Number of students

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

$$M_x = \frac{2415}{30}$$

$$M_x = 80.5$$

b. Standar Deviasi variabel X_1

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

Information:

SD = Standard Deviation

$\sum fx$ = The sum of the research results between the midpoints of each interval, with their frequency

n = Jumlah Number of students

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

$$SD = \sqrt{\frac{1431.5}{30}}$$

$$SD = \sqrt{47.71}$$

$$SD = 6.90$$

c. Standar Error

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

Information:

SE_m = Means that are sought

SD = Standard Deviation of the sample studied

n = Number of students

I = Constant Numbers

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

$$SE_m = \frac{6.90}{\sqrt{30-1}}$$

$$SE_m = \frac{14.32}{\sqrt{29}}$$

$$SE_m = \frac{14.32}{5.3}$$

$$SE_m = 1.30$$

$$SE_m = 1.30$$

The following is a histogram frequency table of students' Post Test scores:

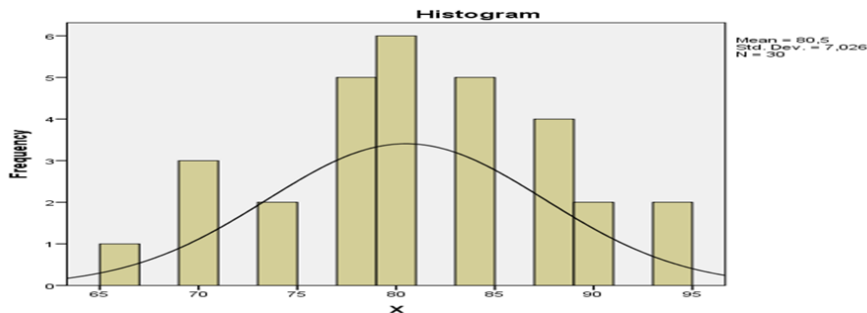


Figure 2. Histogram Distribution of Post Test Value Frequency

Based on the data above, it can be seen that the Post Test scores of students are: 4 respondents got a score of around 66-70 at 13%, 2 respondents got a score around 71-75 at 7%, 11 respondents got a score around 76-80 at 37%, 5 respondents got a score of around 81-85 at 17%, 4 respondents got a score around 86-90 at 13% and 4 respondents got a score around 91-95 at 13%.

The results of the Post Test scores indicate an increase in the learning completeness of class V students. These results can be seen from the Post Test scores being higher than the Pre Test scores. Where the average value of the Post Test is 80.7 while the average Pre Test value is 38.7. For more details, it can be seen from the average value of the Pre Test and Post Test in the diagram below:

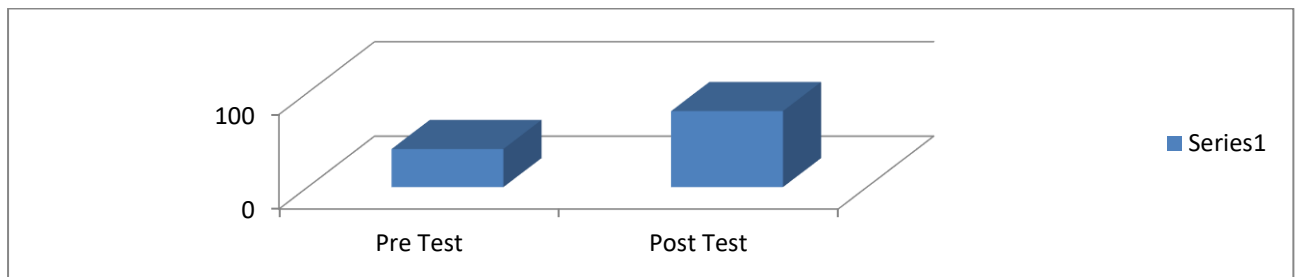


Figure 3. Pre-test and post-test average score diagrams

Based on the diagram above, it can be seen that the average value of the Post Test is higher than on the average value of the Pre Test in subject matter theme 8 sub-theme 1 learning 2.

Table 6. Assessment Criteria

Correlation coefficient	Meaning
80-100	Very Good
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 80.5 in the very good category.

At the end of the lesson, after being given the Post Test, a questionnaire will then be given on the Mastery Learning learning model which aims to see the teacher's activities while teaching using the Mastery Learning learning model.

Results of Questionnaire Model Mastery Learning

Table 7. Frequency Distribution of Questionnaire Results

X	F	FX	$X-x-\bar{x}$	X^2	FX^2
60	1	60	-6.9	47.61	47.61
63	4	252	-3.9	15.21	60.84
64	2	128	-2.9	8.41	16.82
65	3	195	-1.9	3.61	10.83
66	3	198	-0.9	0.81	2.43
67	2	134	0.1	0.01	0.02
68	6	408	1.1	1.21	7.26
69	2	138	2.1	4.41	8.82
70	3	210	3.1	9.61	28.83
71	4	284	4.1	16.81	67.24
Total	$\Sigma=F30$	$\Sigma FX=2007$		$\Sigma X^2=107.7$	$\Sigma FX^2=250.7$

Berdasarkan data di atas maka dapat mean, standar deviasi dan standar error sebagai berikut:

a. Average(mean)

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

Information:

M_x = Means that are sought

$\sum fx$ = The sum of the results between the midpoints of each interval, and the frequency.

n = Number of students

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

$$M_x = \frac{2007}{30}$$

$$M_x = 66.9$$

b. Standar Deviasi variabel X_1

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

Information:

SD = Standard Deviation

$\sum fx$ = The sum of the research results between the midpoints of each interval, with their frequency

n = Jumlah Number of students

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

$$SD = \sqrt{\frac{250.7}{30}}$$

$$SD = \sqrt{8.36}$$

$$SD = 2.89$$

c. Standar Error

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

Information:

SE_m = Means that are sought

SD = Standard Deviation of the sample studied

n = Number of students

I = Constant Numbers

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

$$SE_m = \frac{2.89}{\sqrt{30-1}}$$

$$SE_m = \frac{2.89}{\sqrt{29}}$$

$$SE_m = \frac{2.89}{5.3}$$

$$SE_m = 0.54$$

For more details can be seen from the diagram below:

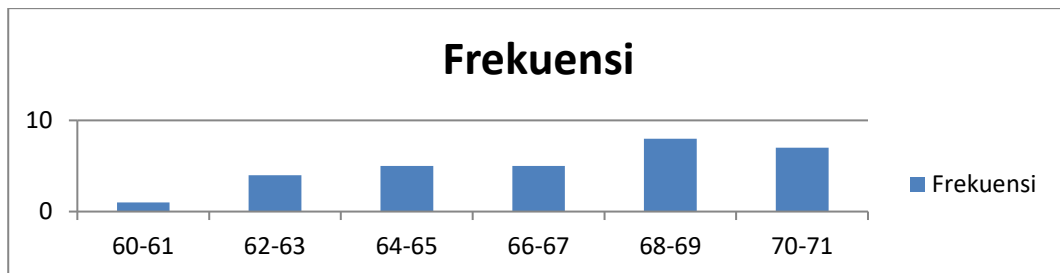


Figure 6. Histogram of the Frequency Distribution of Questionnaire Values

Normality test

The normality test was carried out to find out whether the data from the Post Test learning outcomes of class V students were normally distributed or not. Based on the results of calculations using SPSS Version 22 normality

testing, namely by using the Test of Normality test, it is known that the Test of Normality value is significant ≥ 0.05 , it can be concluded that the data is normally distributed. Below is the result of the calculation of normality using the SPSS Version 22 program.

Table 8. Normality Test

	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
	Statistic	Df	Sig.	Statistic	Df	Sig.
X	.109	30	.200*	.969	30	.517

The significant level value used by researchers is a significance level of 5% or 0.187. Based on the Lilifors test (Kolmogorof Smirnov) decision making using a significant level of 5% is

if $L_{count} \geq L_{table}$, then $0.200 \geq 0.187$ so class V data is normally distributed. To support the statement above, the researcher presents the results of histograms on data normality below:

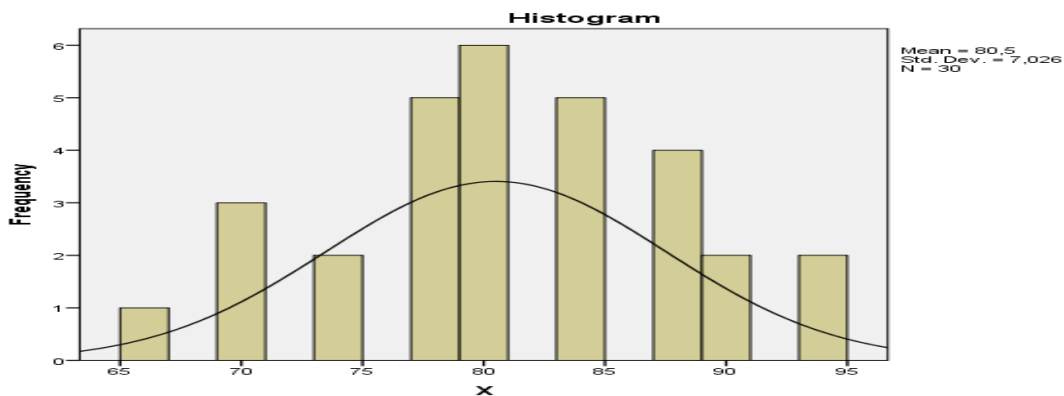


Figure 7. Normality Test Histogram Frequency Results

Based on the histogram graph above, the data contained on a bell-shaped line and the highest point on the curved line is parallel to 0. As well as the number of numbers next to 0, where there are 3 numbers on the left and 3 numbers on the right. Then it is concluded that the data balance (balanced).

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 requirement to test the correlation coefficient is by looking at $r_{count} \geq r_{table}$ with the product moment correlation coefficient formula.

Table 9. Correlation Coefficient Value of the Effect of Mastery Learning Learning Model

No	X	Y	X ²	Y ²	XY
1	65	73	4225	5329	4745
2	65	80	4225	6400	5200
3	65	77	4225	5929	5005
4	70	80	4900	6400	5600
5	63	80	3969	6400	5040
6	68	77	4624	5929	5236
7	63	80	3969	6400	5040

8	64	83	4096	6889	5312
9	60	87	3600	7569	5220
10	66	83	4356	6889	5478
11	70	93	4900	8649	6510
12	64	80	4096	6400	5120
13	69	87	4761	7569	6003
14	71	83	5041	6889	5893
15	66	80	4356	6400	5280
16	68	60	4624	3600	4080
17	70	87	4900	7569	6090
18	69	90	4761	8100	6210
19	63	80	3969	6400	5040
20	68	87	4624	7569	5916
21	68	70	4624	4900	4760
22	66	87	4356	7569	5742
23	67	73	4489	5329	4891
24	68	83	4624	6889	5644
25	71	66	5041	4356	4686
26	70	87	4900	7569	6090
27	71	77	5041	5929	5467
28	68	83	4624	6889	5644
29	67	83	4489	6889	5561
30	63	80	3969	6400	5040
Jumlah	2006	2416	134378	195998	161543

To see the relationship of the two variables can be done by comparing r_{count} and r_{table} if $r_{\text{count}} \geq r_{\text{table}}$ then it is correlated. Below is

the correlation test calculation with the help of SPSS Version 22 as follows:

Table 10. Correlation Coefficient Test

		Model Mastery Learning	Hasil Belajar
Model Mastery Learning	Pearson Correlation	1	.951
	Sig. (2-tailed)		.012
	N	30	30
Hasil Belajar	Pearson Correlation	.951	1
	Sig. (2-tailed)	.012	
	N	30	30

The table above shows that the correlation coefficient is 0.951. If $r_{count} \geq r_{table}$ then $0.951 \geq 0.361$. This means that there is a very strong correlation between the Mastery Learning

learning model and the learning outcomes of fifth grade students at SD Negeri 097795 Perasmian. This can be seen from the table below:

Table 11. Interpretation

No	Mark	Interpretation
1	0.00-1.199	Very low
2	0.20-0.399	Low
3	0.40-0.599	Currently
4	0.60-0.799	Strong
5	0.80-1.000	Very Strong

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 proposed is: the hypothesis using the "t test". The statistic used to test the research hypothesis is the t-test. the following is the result of the t-test calculation:

Table 12. T-test results

Model	Unstandardized Coefficients		Standardized Coefficients	T	Sig.
	B	Std. Error	Beta		
(Constant)	71.747	3.486		.584	.000
Model <i>Mastery Learning</i>	.217	.081	.450	2.665	.013

The result of the t-test calculation from SPSS ver 22 is 2,665 and the ttable for 30 respondents is 2,048. To find out whether the hypothesis is accepted or rejected, $t_{count} \geq t_{table}$, namely $2.665 \geq 2.048$, which means that there is an influence of the Mastery Learning 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:

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

$$t = 0.450 \frac{\sqrt{30-2}}{\sqrt{1-0.450^2}}$$

$$t = 0.450 \frac{\sqrt{28}}{\sqrt{1-0.2025}}$$

$$t = 0.450 \frac{\sqrt{28}}{\sqrt{0.7975}}$$

$$t = 0.450 \frac{5.291}{0.797}$$

$$t = 0.450 \times 6.638$$

$$t = 2.665$$

the manual t-test results above are 2,665, so it can be seen from the $t_{count} \geq t_{table}$, namely

$2,665 \geq 2,048$, which means that there is a positive influence of the Mastery Learning learning model on student learning outcomes.

Discussion

If observed from the variable coefficients, this study can be stated that the Mastery Learning model is higher than students who receive conventional learning. The results of the analysis obtained illustrate that in fact the Mastery Learning model has an effect on learning outcomes in theme 8, sub-theme 1 of learning 2. Based on the results of the research, the findings of the researchers are as follows:

1. This research was conducted in class V SD Negeri 097795 Perasmian. To find out the students' initial abilities, the researcher conducted a Pre-Test with multiple choice questions and the same type of questions, the results were obtained with an average of 40.36, it can be said that the students' initial abilities were still lacking.

2. After carrying out the Pre Test, the researcher delivered the material using the Mastery Learning learning model. at the end of the lesson, the researcher again gave the Post Test to determine the level of success. The results of the Post Test have an increase from the results of the Pre Test given previously. The Post Test results that have been tested are 80.5. From these data, it can be said that the success rate of learning outcomes has increased.
3. There is a significant influence using the Mastery Learning learning model on student learning outcomes on theme 8 of our friendly environment sub-theme 1 learning 2. It can be proven through the total score results with normality test results with normality testing criteria, namely a significant value (sig) ≥ 0.05 , namely $0.200 \geq 0.05$ then the sample is normally distributed.
4. The results of the correlation coefficient prove that there is an influence of the Mastery Learning (X) learning model on student learning outcomes (Y) where $t_{\text{count}} \geq t_{\text{table}}$, namely $0.951 \geq 0.361$, it can be concluded that there is a very strong influence.
5. In the hypothesis test, namely $t_{\text{count}} \geq t_{\text{table}}$ where the results are $2,665 \geq 2,048$ 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 the use of the Mastery Learning learning model on student learning outcomes students of class V SD Negeri 097795 Inauguration of the 2022/2023 Academic Year. This proves that the Mastery Learning learning model is very effective in thematic learning.

CONCLUSIONS AND RECOMMENDATION

Based on the discussion of this chapter, the researcher outlines the conclusions compiled based on research activities regarding the effect of the Mastery Learning learning model on the learning outcomes of fifth grade students at SD Negeri 097795 Inauguration on student learning outcomes for the 2022/2023 academic year that there is an influence of the Mastery Learning learning model on student learning outcomes in

class V the material for theme 8 of our friend's environment is sub-theme 1 of learning 2 at SD Negeri 097795 Inauguration of the 2022/2023 Academic Year. This can be proven by the correlation coefficient value of 0.951 which is in a very strong interference. T-test calculation results To find out whether the hypothesis is accepted or rejected, $t_{\text{count}} \geq t_{\text{table}}$, namely $2,665 \geq 2,048$, which means that there is an influence of the Mastery Learning learning model on student learning outcomes. Thus H_a is accepted and H_0 is rejected.

This research shows that the learning outcomes of students using the Mastery Learning learning model are more effective than without using the Mastery Learning learning model. Therefore, in improving student learning outcomes it is necessary to utilize learning models that can focus students' attention, especially on learning theme 8 sub-theme 1 learning 2, one of which is the Mastery Learning learning model presented by the researcher. The learning model is highly recommended to be applied in learning.

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