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THE EFFECT OF THE MIND MAPPING COOPERATIVE LEARNING MODEL TO IMPROVE THE FOURTH-GRADE ELEMENTARY STUDENTS' LEARNING OUTCOMES IN THEME 8 AT UPT SD NEGERI 064025 MEDAN SELAYANG

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ABSTRACT

This paper discusses the improvement of students' learning outcomes and the process of learning implementation by applying the Mind Mapping learning model in order to find out whether there is an effect of the Mind Mapping learning model in the area where I live for students in class IV at UPT SD Negeri 064025 Medan Selayang in the academic year 2022/2023 or not. The research population is 105 students of class IV. The sample was taken by simple random sampling based on 30 students in Class IVC UPT SD Negeri 064025 in the academic year 2022/2023. The method was the experimental method. The experimental method was used to find out the effect of certain treatments on other treatments under controlled conditions. Based on the results of statistical processing, students' learning outcomes by applying the Mind Mapping learning model are in a good category with an average score of 82.87. Meanwhile, students' learning outcomes without applying the Mind Mapping learning model have not fulfilled the KKM that has been implemented with an average score of 47.4. By using the t-test, t_{count} is 8.602 while t_{table} is 2.042. Because $t_{count} \geq t_{table}$, so Ho is rejected and Ha is accepted. It proves that there is a significant effect of the Mind Mapping learning model on the fourth-grade students' learning outcomes at IV UPT SD Negeri 064025 Medan Selayang academic year 2022/2023.

Keywords*: *students' learning outcomes, mind-mapping learning models

PENGARUH MODEL PEMBELAJARAN KOOPERATIF TIPE *MIND MAPPING* UNTUK MENINGKATKAN HASIL BELAJAR SISWA PADA TEMA 8 KELAS IV UPT SD NEGERI 064025 MEDAN SELAYANG

ABSTRAK

Artikel ini membahas peningkatan hasil belajar siswa dan proses pelaksanaan pembelajaran siswa dengan menggunakan model pembelajaran *Mind Mapping* untuk mengetahui adakah pengaruh model pembelajaran *Mind Mapping* terhadap Daerah Tempat Tinggalku pada siswa kelas IV UPT SD Negeri 064025 Medan Selayang tahun pembelajaran 2022/2023 atau tidak. Populasi penelitian sebanyak 105 seluruh siswa kelas IV. Sampel diambil secara *simple random sampling* dengan 30 peserta didik Kelas IVC UPT SD Negeri 064025 Tahun Pembelajaran 2022/2023. Penelitian menggunakan metode kuantitatif. Metode eksperimen dilakukan untuk mencari pengaruh perlakuan tertentu terhadap yang lain dalam kondisi yang terkendalikan. Berdasarkan hasil pengolahan statistik, hasil belajar siswa dengan menggunakan model pembelajaran *Mind Mapping* termasuk kategori baik dengan rata-rata 82,87. Sedangkan hasil belajar tanpa menggunakan model pembelajaran *Mind Mapping* belum terlalu memenuhi KKM yang sudah diterapkan dengan rata-rata 47,4. Dengan menggunakan uji t, t_{hitung} = 8.602 sedangkan t_{tabel} = 2.042 karena $t_{hitung} \geq t_{tabel}$ maka Ho ditolak dan Ha diterima. Hal ini membuktikan bahwa terdapat pengaruh yang signifikan antara model pembelajaran *Mind Mapping* terhadap hasil belajar siswa kelas IV UPT SD Negeri 064025 Medan Selayang Tahun Pembelajaran 2022/2023.

Kata Kunci: model pembelajaran kooperatif, *mind mapping*, hasil belajar siswa

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INTRODUCTION

Education plays a very important role in brightening people's lives . Good education is education that is able to build the potential of students, so that those concerned are able to face

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and solve the problems of life they face. Education must touch the potential of students. Based on Law Number 20 of 2003 concerning the National Education system, Article 1 Paragraph 1, "Education is a conscious and planned effort to create a learning atmosphere and learning process so that students actively develop their potential to have religious spiritual strength, self-control, personality, intelligence, morals, noble and skills needed by himself, society, nation and state. Basic education is very important for every individual in improving the quality of education as a provision for the future. To get good provisions, it takes maximum effort from teachers and students in learning activities. For this reason, teachers and students are expected to work together to achieve the goals of education.

here _ a teacher plays a very important role in the advancement of education, while the characteristics that a teacher must have are hard work, have good self-confidence, know how to appreciate and respect others. The teacher's task is to educate, teach, facilitate, design, manage, and assess. Article 1 Paragraph 1 of Law Number 14 of the Republic of Indonesia of 2005 concerning Teachers and Lecturers states: "Teachers are professional educators whose main task is to educate, teach, lead, guide, train, assess and evaluate students from an early age. Education formal education education , primary education and secondary education.

Along with continuous era developing where technology is increasingly sophisticated and we as citizens must be able to follow progress era such , then The current educational curriculum in Indonesia is the 2013 curriculum where the 2013 curriculum emphasizes student creativity and activeness. In the 2013 Curriculum, learning is no longer a gem of a lesson but is already combined in one group called the term Thematic learning _ leave on a theme chosen and developed by the teacher with students with notice the relationship with content subjects , where the theme is the main idea or idea. In the 2013 Curriculum there is the term Core Competency (IC), where these competencies are designed in four interrelated groups, namely with regard to religion, social attitudes, knowledge, and skills.

Based on results observations made by researchers at UPT SD Negeri 064025 Medan Selayang there are still many student scores below the average, one of the obstacles is that teachers still use a lot of conventional teaching models. Where this teaching model is characterized by the teacher still giving a lot of lectures and explaining material to students and students only listening and then carrying out assignments when the teacher gives practice questions. This is one of the causes of not achieving the learning objectives as expected.

To overcome the problems above, the researcher is interested in using a learning model that aims to connect learning concepts using branched structures/images, namely the Mind Mapping learning model. Mind Mapping is a learning method that is designed by mapping information in graphical form. Mind mapping can be mapped using branching lines, images, or keywords that are interrelated with the main concept or idea. Mind Mapping will help someone in various ways such as planning, communicating, remembering something well, making someone more creative in solving problems, focusing attention, organizing and explaining thoughts, and learning things more quickly and efficiently.

LITERATURE REVIEW

Learning Model

The learning model is very important in the teaching and learning process. The learning model is an effort made by the teacher, so that the teaching and learning process for students is achieved according to the objectives. A strategy in teaching is the ways chosen to convey a subject matter in a teaching environment which includes the nature, sequence of activities that can provide learning experiences to students and scope.

Soekamto (in Al- Tabany and Ibnu 2015: 143) stated, "The learning model is a conceptual framework that describes a systematic procedure in organizing learning experiences to achieve certain learning goals and serves as a guide for learning designers and teachers in planning

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teaching and learning activities. Arends (in Al-Tabany and Ibnu , 2015:143) stated, "the term teaching model refers to a particular approach to instruction that includes its goals, syntax, environment, and management system". " which means "the term teaching model refers to a particular teaching approach, including objectives, syntax, environment And system its management ". According to joyce And weil (in Rusman , 2017: 244), a learning model is a plan or pattern that can be used to shape the curriculum (long-term learning plans), design learning materials in class or otherwise. Nainggolan , et al (2022: 359) argues , "A learning model is a frame of reference/a form of learning that describes the learning process from start to finish, usually presented by a teacher".

Based on the description above, the authors conclude that the learning model is a conceptual framework that describes a systematic procedure for organizing learning experiences to achieve certain learning goals and serves as a guide for learning designers and teachers in planning teaching and learning activities.

Learning Models *Mind Mapping*

Teachers play a role as facilitator or those that facilitate ongoing learning so that students get real learning experiences. The teacher tries to invite and bring all students to participate in learning activities. Binding by using a mind map is a fun way of learning.

According to Zarkasyi (in Saputra , Triyogo , and Frima , 2021:5135), learning model *Mind Mapping* is a learning model that uses remembering techniques with the help of concept maps and then creates codes and symbols using colors that are connected to each other systematically so that this process involves the performance of the left brain and right brain. Buzan (2020: 4) states , The *Mind Mapping* learning model is a way of developing thinking activities in all directions, capturing various thoughts from various angles. *Mind Mapping* which we often call concept maps is a very powerful organizational thinking tool that is also the youngest way to put information into the brain and retrieve that information when needed.

Mind Mapping learning model is a technique that utilizes the brain as a whole, both the left brain and the right brain, to make a deep impression on the maker by using visual methods and other graphic means. In the opinion of the experts above, the writer can conclude that the *Mind Mapping learning model* is a learning model that uses remembering techniques with the help of mind maps. The *Mind Mapping* learning model can be created by creating codes and symbols using colors that are connected to each other .

According to Swadarma (2013: 68), the steps for *Mind Mapping learning* are as follows: a) The teacher conveys the purpose of today's lesson. b) The teacher throws out a topic that is being hotly reported but is still related to the subject matter that has been studied before. c) The teacher gives a brief explanation accompanied by questions and answers. d) At the end of the explanation the teacher gives questions that tickle students. e) To answer, students are grouped into 4-5 people. f) In each group the teacher provides references (books/articles/magazines/newspapers) related to the material. g) Each student in their group makes a map based on the reference book they read. h) The results of *the Mind Mapping* of each student are "melted" into one large *Mind Mapping* . i) Each group presents each group's *Mind Mapping* . j) Students respond to presentations with the teacher as the moderator (students in high grades can already be moderators). k) The teacher concludes the learning outcomes. According to *Mind Mapping* learning .

Swadarma (2013: 69) suggests there are advantages and disadvantages of the *Mind Mapping learning model* , namely as follows:

a. Advantages of the Mind Mapping Learning Model .
   1. The teacher is free to control and convey the material.
   2. Teachers can easily see student responses including their understanding of the material.
   3. Can be applied to the condition that the subject matter is quite broad, while the time you have is limited.

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4. Can be used for a large number of students and large class sizes.

b. *Mind Mapping* Learning Model

1. It is more appropriate to be given to students with good listening and listening skills.
2. Cannot serve students with differences in abilities, knowledge, talents, interests, and learning styles .
3. students ' interpersonal skills, socialization, and critical thinking skills .
4. Its success depends on the teacher's preparation, knowledge, confidence, passion, enthusiasm, motivation, communication and classroom management.
5. Knowledge possessed by students is limited to the material that has been studied

METHOD

Test Correlation

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 look at $t_{count} \geq t_{table}$ or it can be with formula correlation *Product moments* 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 = Total number of students

$\sum X$ = Item score

$\sum Y$ = Total score of all students

$\sum XY$= Multiplication of the score "X" and the score "Y"

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 Coefficient

n = Sample

to find out whether the hypothesis is accepted (Ha) then $t_{hitung} \geq t_{tabel}$ vice versa $t_{hitung} \leq t_{tabel}$ then the hypothesis is rejected (Ho).

RESULTS AND DISCUSSION

Class V Pre-Test Results

The initial action taken by the researcher was to give *the Pre-Test* to students. This *pre-test* was conducted to determine students' abilities before being given treatment. the ability of student learning outcomes in understanding the material on theme 8 of our friend's environment sub-theme 3 of learning 3 , most students have not received grades in the complete category according to the Maximum Completeness Criteria (KKM). Of the 30 students in grade I V, 27 students got incomplete grades while 3 students got complete grades . To make it clearer about the results of class IV *Pre-Test values* , below is a table of the frequency of class V Pre-Test values briefly as follows:

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Table 4 . Frequency Distribution of Pre Test Data

X	F	FX	X=X-$\bar{X}$	X2	FX
20	1	20	(27.40)	750.76	750.76
27	1	27	(20.40)	416.16	416.16
30	2	60	(17.40)	302.76	605.52
33	2	66	(14.40)	207.36	414.72
37	3	111	(10.40)	108.16	324.48
40	4	160	(7.40)	54.76	219.04
43	2	86	(4.40)	19.36	38.72
47	1	47	(0.40)	0.16	0.16
50	4	200	2.60	6.76	27.04
56	1	56	8.60	73.96	73.96
57	1	57	9.60	92.16	92.16
63	4	252	15.60	243.36	973.44
67	1	67	19.60	384.16	384.16
70	2	140	10:60 p.m	510.76	1021.52
73	1	73	25.60	655.36	655.36
	∑30	**∑FX= 1422**		**∑X ^{2} = 3,901.24**	**∑FX ^{2} = 5,997.2**

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 = Mean What you are looking for

∑ fx = Total from results research between *midpoints* of each interval, with the frequency .

N = Number of students

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

$$M_x = \frac{1.422}{30}$$

$$M_x = 47{,}4$$

b. Standard Deviation

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

Information :

SD = Standard Deviation

∑ fx = Amount from the research results between the midpoints of each interval, with the frequency

N = Number of students

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

$$SD = \sqrt{\frac{5.997{,}2}{30}}$$

$$SD = \sqrt{199{,}906}$$

$$SD = 14.13$$

c. Error Standard

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

Information :

SE_m = Mean What you are looking for

SD = Standard Deviation of the sample studied

N = Number of students

I = Constant Number

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

$$SE_m = \frac{14.13}{\sqrt{30-1}}$$

$$SE_m = \frac{14.13}{\sqrt{29}}$$

$$SE_m = \frac{14.13}{5.3}$$

$$SE_m = 2.66$$

To find out the success rate of the given action, the results of the student's pre-test scores can be seen in the image below

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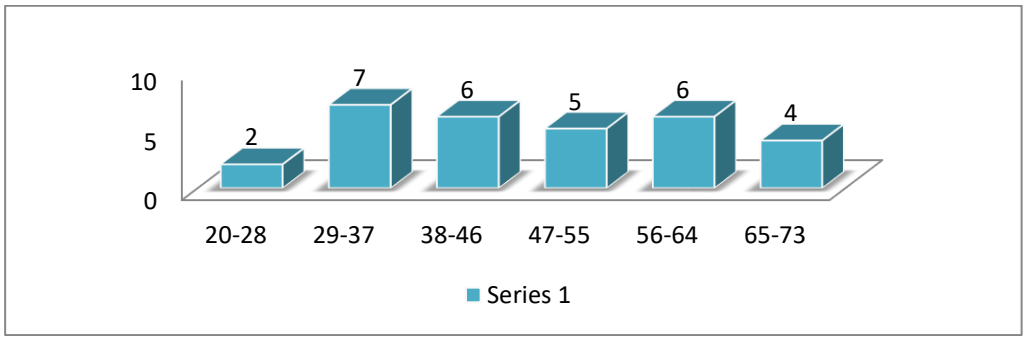

Figure 1 . Pre Test Value Frequency Distribution Diagram

Based on the data from the frequency distribution diagram above, it can be seen that the students' pre-test scores were 2 respondents obtaining a score of 20-28 of 6.67% with a bad description, 7 respondents obtaining a score of 29-37 of 23.33% with a bad description, 6 Respondents scored 38-46 at 20% with a bad description, as many as 5 respondents got 47-55 at 16.67% with less information, 6 respondents got a score of 56-64 at 20% with less information, 4 Respondents got a score of 65- 73 of 13.33% with sufficient information. Based on the histogram of the frequency distribution, the class IV post-test score obtained the highest score of 73 and the lowest score of 20 and obtained an average of 47.4.

Class V Post Test Results

At the end of the lesson, after all learning materials are taught using the *Mind Mapping learning model* . then the researcher gave a posttest which aims to determine the level of success or the action given. The results of the posttest scores can be seen in table below.

Table 5. Frequency Distribution

X	F	FX	X=x-$\bar{x}$	X^2	FX^2
67	3	201	(15.87)	251.86	755.57
70	4	280	(12.87)	165.64	662.55
77	4	308	(5.87)	34.46	137.83
80	3	240	(2.87)	8.24	24.71
83	3	249	0.13	0.02	0.05
87	3	261	4.13	17.06	51.17
90	3	270	7.13	50.84	152.51
93	2	186	10.13	102.62	205.23
97	3	291	14.13	199.66	598.97
100	2	200	17.13	293.44	586.87
	$\sum F$ =30	**$\sum FX$ = 2486**		**$\sum X^2$ = 1,114.84**	**$\sum FX^2$ = 3,380.97**

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

a. The average (mean) variable X_1

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

Information:

M_x = Mean What you are looking for

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∑ fx = Total from results research between *midpoints* of each interval, with the frequency .

N = Number of students

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

$$M_x = \frac{2.486}{30}$$

$$M_x = 82{,}87$$

b. Standard Deviation variable X 1

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

Information :

SD = Standard Deviation

∑ fx = Amount from the research results between the midpoints of each interval, with the frequency

N = Number of students

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

$$SD = \sqrt{\frac{3.380{,}97}{30}}$$

$$SD = \sqrt{112{,}699}$$

$$SD = 10{,}62$$

c. Standard Error Variable X 1

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

Information :

SE m = Mean What you are looking for

SD = Standard Deviation of the sample studied

N = Number of students

I = Constant Number

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

$$SE_m = \frac{10{,}62}{\sqrt{30-1}}$$

$$SE_m = \frac{10{,}62}{\sqrt{29}}$$

$$SE_m = \frac{10{,}62}{5.39}$$

$$SE_m = 1{,}97$$

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

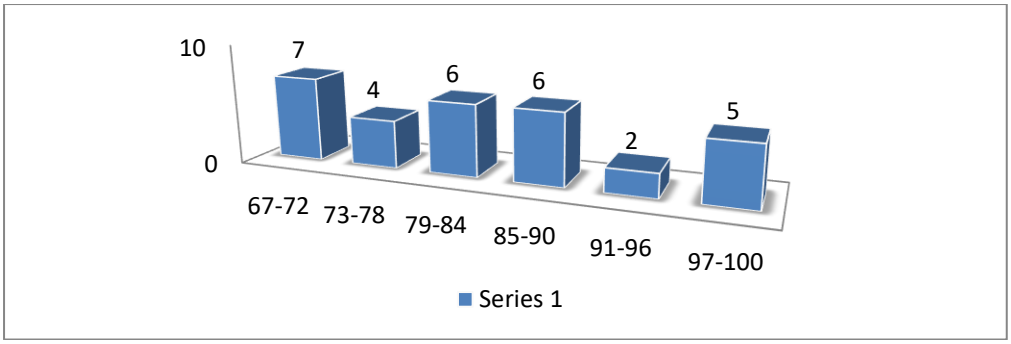

Figure 2. Distribution of *Post Test* Value Frequency Diagrams

Based on the data above, it can be seen that the *post-test scores* of students are 7 respondents obtaining a score of 67-72 of 23.33% with sufficient information, 4 respondents obtaining a score of 73 -78 of 20% with sufficient information, 6 respondents obtaining a score of 79-84 of 20% with good information, 6 respondents got 85-90 20% with good description, 2 respondents got 91-96 score 6.67% very good, 5 respondents got 97-100 score 16.67% very good. Based on the frequency distribution diagram, the grade IV *post-test* score obtained the highest score of 100 and the lowest score of 67, obtained an average of 82.87 students students who get value above.

At the research implementation stage, the experimental class was given *a pre-test* and *post-test* which was one of the initial requirements of the research which aimed to see the final ability of students' learning after being given the *Mind Mapping Learning Model* . the results of this study post-test average around 82.87, while the pre-test average value of 47.4. You can see the comparison of these values through a bar chart

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where the post-test scores are higher than the *pre-test.*

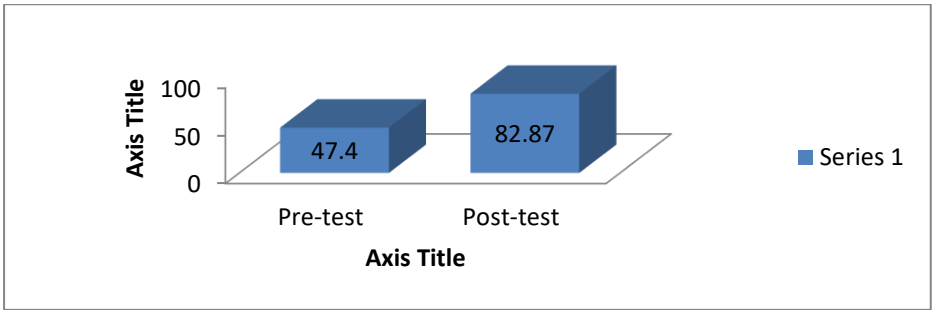

Figure 3. Pre-Test and Post-Test Average Scores

Based on the diagram above, it can be seen that the average value of *the Post-Test* is higher than the average score of *the Pre-Test* in the subject matter of theme 8, our friend's environment sub-theme 3 learning 3.

Table 6. Assessment criteria

Correlation coefficient	Meaning
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 8 2.87 in the very good category.

Results *Mind Mapping* Model Questionnaire

At the end of learning, after being given The Post Test will then provide a *Mind Mapping* learning model questionnaire which aims to see teacher activities while teaching using the *Mind Mapping learning model* . The results of the student questionnaire scores can be seen in the table below this:

Table 7. Frequency Distribution of Questionnaire Results

X	F	FX	$X=x-\bar{x}$	X^2	FX^2
60	3	180	-20	400	1200
62	1	62	-18	324	324
70	4	280	-10	100	400
75	1	75	-5	25	25
79	3	237	-1	1	3
80	4	320	0	0	0
81	1	81	1	1	1
83	1	83	3	9	9
85	2	170	5	25	50

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87	1	87	7	49	49
88	2	176	8	64	128
89	3	267	9	81	243
90	3	270	10	100	300
95	1	95	15	225	225
	∑= 30	∑FX=2383		$\sum X^2$ = 1404	$\sum FX^2$ = 2.957

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

a. Average

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

Information:

M_x = Mean What you are looking for

∑ fx = Total from results research between *midpoint* from each interval, with the frequency .

N = Number of students

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

$$M_x = \frac{2383}{30}$$

$$M_x = 80$$

b. Standard Deviation

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

Information :

SD = Standard Deviation

∑ fx = Amount from the research results between the midpoints of each interval. with the frequency

N = Number of students

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

$$SD = \sqrt{\frac{2.957}{30}}$$

$$SD = \sqrt{98.56667}$$

$$SD = 9{,}93$$

c. Error Standard

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

Information :

SE_m = Mean What you are looking for

SD = Standard Deviation of the sample studied

N = Number of students

I = Constant Number

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

$$SE_m = \frac{9{,}93}{\sqrt{30-1}}$$

$$SE_m = \frac{9{,}93}{\sqrt{29}}$$

$$SE_m = \frac{9{,}97}{5.39}$$

$$SE_m = 1{,}84$$

For more details can be seen from the diagram below:

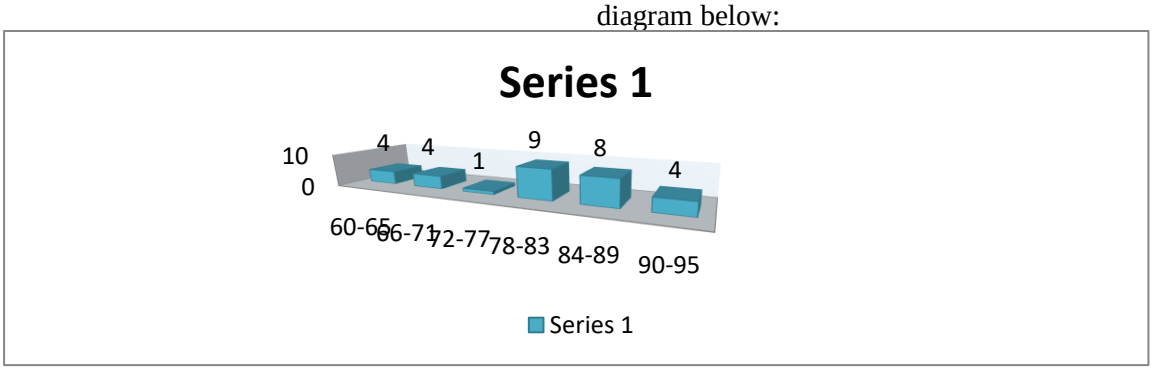

Figure 4. Questionnaire Value Frequency Distribution Diagram

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Test Normality

The normality test was carried out to find out whether the data from the class IV *post-test* were normally distributed or not. Based on the results of calculations using SPSS 22. The research data are normally distributed or not, *the Kolmogorof-Smirnov* normality test will be carried out at an alpha of 5%. If the significant value of *Kolmogorov-Smirnov* ≥ 0.05 means normal data, then the following results are obtained:

Table 8. Normality Test

	Kolmogorov-Smirnov [a]			Shapiro-Wilk		
	Statistics	Df	Sig.	Statistics	Df	Sig.
X	.1 24	30	.200 *	.9 42	30	. 102

The significance level value used by the research is a significance level of 5% or 0.05. Based on the Lilifors test (Kolmogorov-Smirnov) it was found that a significance of 0.200 ≥ 0.161 means that class IVA data is normally distributed. Based on the results of these calculations it can be seen that the significance value of the experimental class is greater than 0.161 so it can be concluded that the experimental class data is normal.

Correlation Coefficient Test

The correlation coefficient test is used to determine whether there is influence between the independent variable (X) on the dependent variable (Y), and the requirements for the correlation coefficient test are to calculate r count ≥ r table with the product moment correlation formula .

Table 9 . Correlation Coefficient Value of the Influence of the Learning Model *Mind _ maps*

No	X	Y	X2	Y2	XY
1	60	70	3600	4900	4200
2	79	80	6241	6400	6320
3	70	77	4900	5929	5390
4	88	97	7744	9409	8536
5	70	70	4900	4900	4900
6	80	80	6400	6400	6400
7	80	90	6400	8100	7200
8	87	93	7569	8649	8091
9	89	97	7921	9409	8633
10	79	83	6241	6889	6557
11	90	97	8100	9409	8730
12	79	83	6241	6889	6557
13	80	87	6400	7569	6960
14	85	80	7225	6400	6800

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15	60	67	3600	4489	4020
16	62	67	3844	4489	4154
17	90	100	8100	10000	9000
18	83	70	6889	4900	5810
19	95	100	9025	10000	9500
20	89	90	7921	8100	8010
21	81	77	6561	5929	6237
22	90	83	8100	6889	7470
23	75	70	5625	4900	5250
24	60	67	3600	4489	4020
25	70	77	4900	5929	5390
26	70	77	4900	5929	5390
27	85	87	7225	7569	7395
28	89	93	7921	8649	8277
29	80	87	6400	7569	6960
30	88	90	7744	8100	7920
Amount	2383	2486	192237	209182	200077

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

Table 10 . Correlation Coefficient Test

		***Mind Mapping* Models**	**Learning outcomes**
Model *Mind Mapping* _	Pearson Correlation	1	.852 **
	Sig. (2-tailed)		.000
	N	30	30
Learning outcomes	Pearson Correlation	.852 **	1
	Sig. (2-tailed)	.000	
	N	30	30

The table above shows that the correlation coefficient is 0.852. If r count ≥ r table . r count (0.852) ≥ r table (0.361). Then there is a moderate correlation effect between the Mind Mapping learning model on student learning outcomes. It can be concluded that there is a very strong influence between the Mind Mapping Learning Model on the learning outcomes of class IV UPT SD Negeri 064025 Medan Selayang.

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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 sample is from the same population, then hypothesis testing is carried out using the statistical "t test" used to test the hypothesis is the t-test the hypothesis proposed is: the following is the result of the t-test calculation:

Table 12. T-test results

Model	Unstandardized Coefficients		Standardized Coefficients		
	B	std. Error	Betas	Q	Sig.
(Constant)	11,434	7,966		1,435	.162
Model *Mind Mapping* _	.821	095	.852	8,611	.000

To find out whether there is influence or not, it can be seen from the significant results obtained. It can be seen from the t count > t table , namely 8,602 > 2,042, which means that there is an influence of *the Mind Mapping* learning model on student learning outcomes.

The result of the t-test calculation from SPSS ver 22 is 8,602. To support the t-test results from SPSS ver 22, the following are the results of the manual t-test below:

$$t = r\frac{\sqrt{n-2}}{\sqrt{1-r^2}}$$
$$t = 0.852\frac{\sqrt{30-2}}{\sqrt{1-0.852^2}}$$
$$t = 0.852\frac{\sqrt{28}}{\sqrt{1-0.725904}}$$
$$t = 0.852\frac{\sqrt{28}}{\sqrt{0.274096}}$$
$$t = 0.852\frac{5.291503}{0.523543}$$
$$t = \frac{4.50836}{0.523542}$$
$$t = 8.611$$

the result of the manual t-test above is 8,611 , it can be seen from the calculated t value ≥ t table , namely 8,611 ≥ 2,048 which means that there is a positive influence on the *Mind Mapping learning model* on student learning outcomes.

Discussion of Research Results

If observed from coefficient variable , research This can stated that learning model *Mind Mapping* more tall from on students who get learning conventional . Results analysis obtained _ give description that it turned out to be *the Mind Mapping* model influential on learning outcomes in theme 8 sub-theme 3 learning 3 . Based on results research , conclusion researcher is as following :

For determine valid or nope an instrument, the assistance of the SPSS program version 22.0 is needed with the following provisions following : If r count ≥ r table l with level significance 0 ,05 so instrument the said valid . If r count ≤ r table with level significance 0 ,05 so instrument the said No valid . From the results of testing the instrument questions that were carried out, validity can be summarized valid question _ as many as 30 questions and unlucky not valid as many as 20 questions .

For know ability Initial research students used *a pre-test* in the experimental class with a total of 30 multiple choice questions, *the pre-test* of the experiment with an average of 47.4. From this average it can be seen that the *pre-test ability* in the experimental class is still below the KKM or still low.

Then after given the *Mind Mapping* model treatment in the experimental class the

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researcher gave *Post-test questions* with a total of 30 multiple choice questions, and obtained an average result of 82.87 and here students has reach KKM.

Results test normality with Sig level , α = 0.05 with criteria testing normality that is $L_{count} \geq L_{table}$ so sample normally distributed . Based on results test normality is known that mark significant Asiymp . Sig (2 tailed) of 0.200 ≥0.161. Then according to the basis of decision making in test normality *Kolmogorov- Smirnov* above if ≥ 0.161 then Ha is accepted (normally distributed) and if the significant level obtained is ≤ 0.161 then Ho is rejected (no normally distributed). It can be concluded that the data is normally distributed . Thus, the assumptions or requirements have been met.

Results coefficient correlation prove that there is the influence of learning models *Mind Mapping* (X) to results (Y) with results $t_{count} \geq t_{table}$ the result is (0.852) ≥ (0.361) and here it can be concluded that there is moderate influence . _ And the T test (hypothesis) of the data calculations performed is known mark $t_{count} \geq t_{table}$ i.e. 8,611 ≥ 2,042 then as a decision making it can be concluded that Ho is rejected and Ha is accepted. So that can concluded that There is the influence of learning models *Mind Mapping* Against Results Study Student On Theme 8 Area Places I live in class IV UPT SD Negeri 064025 Medan Selayang Year Learning 2022/2023

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 *Mind Mapping learning model* on the learning outcomes of Class IV UPT SD Negeri 064025 Medan Selayang on student learning outcomes for the 2022/2023 academic year as follows:

The process of implementing the learning model *Mind Mapping* against results Study student Class IV UPT SD Negeri 064025 Medan Selayang is with give *Pre - Test* And *Post - Test* to respondent , the test relieved 30 questions each . Before given treatment researcher give *Pre - Test* For know the extent to which students' knowledge of the material in theme 8 sub-theme 3 learning 3. After get result *Pre - Test* furthermore researcher give treatment to student with using learning models *Mind Mapping* , after give treatment researcher give *Post - Test* , p This carried out so that researchers know the extent to which students' abilities after being given treatment.

Mind Mapping learning model to the learning outcomes of Class IV UPT SD Negeri 064025 Medan Selayang student learning outcomes increased. this _ can seen from the average value *of the Pre - Test* student of 47.4 which is _ on category low , meanwhile *Post - Test* average score of 82.87 which is in the very good category. *Mind Mapping* learning model on student learning outcomes in class IV material on the theme 8 Areas of Place I live 3 Proud Against Place Area Leave me learning 3 at UPT SD Negeri 064025 Medan Selayang Study Year 2022/2023. This can be proven by the correlation coefficient value of 0.852 which is on intervention very strong . T-test calculation results To find out whether the hypothesis is accepted or rejected so $t_{count} \geq t_{table}$ ie 8,611 ≥ 2,048 which means there is an influence of the Mastery Learning learning model on student learning outcomes. Thus Ha is accepted and HO is rejected.

This study shows that student learning outcomes using the *Mind Mapping learning model* are more effective than learning student learning outcomes without using *the Mind Mapping* learning model . because _ it , deep improve results Study students need to utilize learning models that can focus students' attention, especially on learning theme 8, sub-theme 3, learning 3, one of which is the *Mind Mapping learning model* displayed by researchers.

In accordance with the theory of Buzan, (2004) that the results of this study indicate that with mind mapping: 1) easy to remember lessons, 2) improve understanding and concentration, 3) remember and memorize faster. Thus that the learning model is very effectively used in learning because students and teachers in the learning process simplify things that are very

complex to be simple and can make passive students become active.

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