The Effect of Active, Creative, Effective, and Enjoyable Learning Models on the Fourth-Grade Students' Learning Outcomes

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ABSTRACT

This paper discusses the effect of using the PAKEM learning model on students' learning outcomes on the theme of the area where I live in class IV of SD Negeri 097795 Perasmian in the academic year 2022/2023. The study uses quantitative methods. The research population is 132 students from the entire class I-VI of SD Negeri 097795 Perasmian. Sampling uses a purposive sample with a number of 30 students from class IV. The research results indicate that students' learning outcomes using the PAKEM model are included in the very good category with an average score of 85.13 and a correlation test result of 0.841, which means r_{count} (0.841) $\geq r_{table}$ (0.361), hence Ha is accepted. Thus, there is a significant effect between the use of the PAKEM learning model and students' learning outcomes on the theme of the area where I live in class IV of SD Negeri 097795 Perasmian. It can be seen from the research results of the T-test, where t_{count} 8,215 $\geq t_{table}$ 2,048, Ha is accepted. It reveals that there is a significant positive effect from the use of the PAKEM learning model on students' learning outcomes in the theme of the area where I live in class IV of SD Country 097795 Perasmian in the academic year 2022/2023.

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

INTRODUCTION

Education is very dependent on the learning process experienced by a person, both at school (neighborhood). With education it is hoped that it can create quality human beings who have maturity, both intellectual, social or moral intelligence as well as having competitiveness in facing advances in science and technology. According to Law Number 20 of 2003 concerning the National Education System, Chapter 1 Article 1 paragraph (1) it is stated that education is a conscious and planned effort to create a learning atmosphere and learning process so that students actively develop their own potential, personality, intelligence, morals noble character, as well as the skills needed by himself, the community, the nation and the state. So the effort made by a teacher is to learn.

According to ER Hilgard (Raudhah, 2018) "learning is a change in reaction activity to the environment. Changes in the activities referred to include knowledge, skills, behavior, and this is obtained through practice (experience). Hilgard emphasized that learning is a process of seeking knowledge that occurs within oneself through practice, habituation, experience and so on. As an action, learning is experienced by the students themselves and will determine the occurrence of the learning process. According to Silaban, Sinaga, Anjelina Dewi, et al (2020) the learning process is an interaction between two parties, namely students as learning parties, teachers who teach with students as the main subject. This interaction is rooted in the educator (teacher) and pedagogically activities on the students themselves, proceeds systematically through the stages of design, implementation, and evaluation. Learning does not happen instantly, but proceeds through stages which are characterized by characteristics. In learning, the teacher facilitates students kin order to study well. The teacher must also be able to see everything that happens in the classroom to help

students go through the stages of their development through their role as a teacher, the teacher is also the main actor and determiner of the success or failure of the school learning process. Then the teacher designs and selects materials, learning resources and learning media.

In the learning process, creative teachers are needed so that they can make learning more interesting and liked by students. The classroom atmosphere needs to be planned and built in such a way as to use interesting learning media so that students are expected to play an active role. The active role of students is very important in the context of forming creative next generations. A person can be said to be creative if that person consistently and continuously produces something creative, that is, results that are original and in accordance with needs. Student creativity can be seen in the potential of students when asking questions and answering questions. In addition, creativity can also be seen from his dexterity in following the teaching and learning process in the classroom. Creative also means that teachers are able to choose the material to be given to students so that the material provided is in accordance with students' abilities, choose learning methods that can facilitate students' understanding of the material provided and choose the right media to expedite the learning process and be able to form the right evaluation to measure the level of student mastery of the material provided. Fun is a learning atmosphere that makes students happy learning that makes students happy, students focus their full attention on learning so that their time *on task* is high.

Based on the results of observations made at SD Negeri 097795 Perasmian, there were problems such as students being less active and less interested in participating in the learning process. This is due to the lack of teacher-student communication in the learning process, the learning that is applied by teachers still tends to use methods that are less varied and less fun. The teacher uses the lecture method which makes students bored. The habit of being passive in the learning process can result in most students being afraid and embarrassed to ask the teacher about material they do not understand, so that students become easily bored and unenthusiastic in participating in learning, resulting in low student learning outcomes.

After knowing the problems above, there needs to be a solution or appropriate follow-up to improve student learning outcomes. From the problems above, the teacher is required to find the right learning model to stimulate and improve students' learning abilities to make it more interesting. In addition, the teacher must also make students creative, thorough in reading a text in a book and be able to imagine. As well as being able to build motivation for all students without exception to be able to learn knowledge and develop various basic competencies between subjects in the same theme and students are expected to play an active role in ongoing learning activities and really master and understand thematic learning and students must obtain exercises to increase the potential of students in thematic learning. So the researchers were interested in using the PAKEM learning model for student learning outcomes. Researchers hope that using the PAKEM learning model can improve students' thematic learning outcomes. Based on the background of the problems presented, the authors are interested and consider it important to conduct research with learning improvement by raising the research title "The Influence of Active, Creative, Effective, and Fun Learning Models (PAKEM) on Student Learning Outcomes in Class IV SD Negeri 097795 Inauguration Academic Year 2022/2023"

LITERATURE REVIEW
Model Learning

Designing a teacher's learning task is one of them designing a learning model. The learning model is used and exploited by a teacher to improve the ongoing learning process and can use various existing learning models. The learning model is also a series that has been prepared such as the presentation of material so that it includes aspects before and after the teacher's learning and completes all facilities and equipment related to the learning that will take place. According to Erihardiana & Juleha (2022) suggests that "the learning model is a framework used as a guide in carrying out a work activity, or a systematic description of the learning process to help student learning achieve the goals to be achieved". Meanwhile, according to Asyafah (2019) suggests that "the learning model is an important component in learning".

According to Wahana (2019) put forward the meaning of "learning model, namely: a conceptual framework that describes a systematic procedure in organizing learning experiences to achieve certain learning goals, and serves as a guide for instructional designers and teachers in planning teaching and learning activities.

Model PAKEM learning

The learning process emphasizes Active, Creative, Effective learning, and fun learning. Thus, students are truly more engrossed in learning, feel at home in class, because the teacher does not act as the person who knows best, but acts as a dynamic and creative facilitator. As a facilitator, it is hoped that the teacher will use a variety of learning approaches and strategies or various classroom management, organize classes in a pleasant atmosphere and in each lesson always try to prepare and use teaching aids and other learning support so that learning is truly relaxing.

PAKEM learning enables the emergence of various potentials for students to be more courageous in expressing opinions, asking questions, trying, criticizing, and acknowledging the strengths of others and admitting their weaknesses if they make mistakes. This is a positive exercise to shape the development of his soul in the future. Teachers are not the only absolute and correct source, but students, the environment, the community are also sources that can be explored as learning materials.

According to Aqibab (2022) suggests that "Active, Creative, Effective, and Fun Learning is one of the learning efforts developed in the implementation of School Based Management (SBM) with the aim of providing a method or pattern, so that in learning can apply the pillars of effective learning which contains curriculum improvement and teacher competency and capacity building". According to Meirawan et al (2019) stated that PAKEM is a communicative and interactive learning process between learning resources, educators and students. Meanwhile, according to Vatia (2018) stated "PAKEM is a learning strategy that emphasizes student activity and involvement, where the learning atmosphere is created in such a way that it is effective and enjoyable for students to participate in the teaching and learning process in class".

Based on the opinions of the experts above, the researcher concludes that PAKEM is one of the learning efforts developed in the implementation of SBM with predetermined goals, with a communicative and interactive learning process between learning resources, educators and students, emphasizing student activity and student involvement. where the learning atmosphere is created in such a way that it is effective and enjoyable for students in participating in the learning process.

According to Meirawan et al (2019) that there are 4 steps to implementing PAKEM, they are as follows: (1) Preparation; Preparation is equipment or supplies for something to be able to carry out learning well, students also need to have preparation, be it physical, psychological readiness, or preparation in the form of maturity to do something related to the learning experience, (2) Delivery; 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 carried out on how far students have understood the material being taught. thus, students will not experience difficulties at the next stage of the exercise, (3) Training; The teacher gives students examples of problem solving practice questions 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) Results display; At this stage teachers should help students apply and expand their new knowledge or skills on the job so that learning outcomes will stick and the appearance of results will continue to increase.

Meanwhile, according to Istiyanti (2019) the steps for PAKEM learning are: (1) Understanding the nature of the child, (2) Get to know individual students, (3) Utilizing children's behavior in organizing learning, (4) Develop the ability to think critically, creatively and be able to solve problems, (5) Building classrooms as attractive learning environments, (6) Provide responsible feedback to improve teaching and learning activities, (7) Distinguish between physical and mental activity.

Learning outcomes

Learning outcomes are often used as a measure to find out how far a person has mastered the material that has been taught. To actualize the learning outcomes, a series of measurements using good and qualified evaluations is required. Such measurement is possible because measurement is a scientific activity that can be applied to various fields of education.

According to Silaban et al (2020) stated that "learning outcomes are a specific statement expressed in behavior and appearance which is manifested in written form to describe the expected learning outcomes". According to Kanusta (2021) states that "learning outcomes are the most important part of learning ". Learning outcomes are also referred to as abilities that students acquire through learning activities.

According to Tumulo (2022) that "learning outcomes are the ability of students to receive and process information in the form of main ideas as outlined in the form of teaching which is delivered instructionally". When someone learns there will be a change in behavior in that person, for example from not knowing to knowing, and from not understanding to understanding.

METHOD
Place and Time Study

Study This held in SD Country 097795 inauguration Year Learning 2022/2023 on participant educate Class IV. The location of this research is located at Village inauguration, Subdistrict Mountain Dazzled, Regency Simalungun, Sumatra North. Study This held on semester even on Year Learning 2022/2023 i.e. from January to November June Year 2023.

Population

Sugiyono (2018) argues that "Population is a generalized area consisting of: objects/subjects that have certain qualities and characteristics set by researchers to study and then draw conclusions". The population in this study were all students of SD Negeri 097795 Inauguration of the 2022/2023 Academic Year, a total of 132 students as seen in table 3.2 below.

Table 1. Distribution of the Number of Students at Public Elementary School

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

Research Design

Sugiyono (2018) emphasized that in conducting quantitative research, one of the most important steps is to create a 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-Group 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

Technique collection data Which used in study This is test, questionnaire And documentation. test given with method give question pre-test And post-test to respondents. Pre-test is given before treatment whereas post-test given after give treatment.

Table 2. Assessment Criteria

Correlation coefficient	Information
80-100	Very well
70-79	Good
60-69	Enough
50-59	Not enough
0-49	Very less

Questionnaire is a data collection technique by providing or distributing a list of questions to respondents. Sugiyono (2018) emphasized that "Questionnaire is a data collection technique that is carried out by giving a set of questions or written questions to respondents to answer". Statements that will be given by researchers to students amount to 4 0 questions.

In this study researchers will use *a Likert scale.* Sugiyono (2018) 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 PAKEM learning model in determining the value or attitude in each answer contained in the questionnaire that will be given.

Validity test

Arikunto Suharsimi (2014) argues that "Validity is a measure that indicates the levels of validity or validity of an instrument". A valid or valid instrument has validity high. Conversely, an instrument that is less valid means it has low validity. For instruments in the form of tests, validity testing can be done by comparing the contents of the instrument with the learning material that has been taught.

The correlation formula used in this study is that proposed by the person, known as the *product moment correlation formula.*
Product moment formula :

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

(Arikunto Suharsimi, 2014)
Information:
R_{XY} = Correlation coefficient between X and Y variables
$\sum xy$ = Number of multiplication x with y
N = Number of test takers
X = Total score obtained by students for each statement item
Y = Total score sum

Reliability test aability

Arikunto Suharsimi (2014) emphasized that "Reliability test is an instrument that can be trusted enough to be used as a data collection tool because the instrument is good". Therefore, to test the reliability of researchers using the *KR20 formula* (Kuder Richardson).
K-R20 formula (Kuder Richardson) is as follows:

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

(Sugiyono, 2018)
Information:

r_i = instrument reliability
k   = number of items in the instrument
p_i = the proportion of the number of subjects who answered item 1
q_i $= 1 - p_i$
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
$\sum x^2$ = number of squares of 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* is less than equal to $0.05 \leq 0.05$, then the data can be said to be not normally distributed. Asymp value . *Sign* this significant test on the calculation results of *the Kolmogov-Smirnov test.* The data normality test carried out in this study used the liliefors test, (Sudjana, 2018: 466)

a.   Observations $X_1, X_2, \ldots X_n$ is used as a standard number $Z_1, Z_2, Z_{,n}$ using the formula $Z_1 = \underline{X_i - X}$
     SD
b.   For each of these standard numbers and using the standard normal distribution list, then calculate the probability $F(zi) = P (Z \geq Z_i)$
c.   Next, the proportions Z1, Z2, ..., Zn which is less than or equal to Zi. If this proportion is expressed by S(Zi), then S(Zi)= the number of Z1, Z2, ..., Zn   which $\leq$ Zin
d.   Calculate the difference $F(Zi) – S(Zi)$ then determine the absolute price.
e.   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 $\infty = 0.05$.

With the criteria: if $L_{count} < L_{table}$ then the sample is not normally distributed If $L_{count} > L_{table}$ then the sample is normally distributed.

Correlation Test

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

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

(Arikunto, 2021: 317)
Information:
r_{XY} = Coefficient of *Product moment correlation*
N = Total number of students
$\sum X$ = Item score
$\sum Y$ = Total score of all students
$\sum XY$ = The number of multiplication results between the score "X" and the score "Y"

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Table 3. Interpretation of the Correlation Test

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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 (Sugiyono, 2018):

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

Information:

r = Correlation Coefficient

n = Sample

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

RESULTS AND DISCUSSION
Results Pretest Class IV

The initial action taken by the researcher is give Pretest to student. Pretest This done For know ability student before given treatment. ability results Study student in understand material theme 8 area place my stay subtheme 1 learning 1, part big student Not yet get mark with category complete in accordance with Criteria Completeness Maximum (KKM). From 30 amount student class IV, student Which get an incomplete score of 27 person whereas student Which get complete value of 3 people. To be clear regarding the results of *the Pretest scores* class IV, in lower This table frequency mark *Pretest* class IV briefly can be seen as following:

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**Table 4. Frequency Distribution of PAKEM Learning Model *Pre test Experiment Data***

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X	F	FX	X=x- x̄	X^2	FX^2
25	1	25	-25.5	650.25	650.25
30	3	90	-20.5	420.25	1260.75
35	3	105	-15.5	240.25	720.75
40	3	120	-10.5	110.25	330.75
45	3	135	-5.5	30,25	90.75
50	1	50	-0.5	0.25	0.25
55	4	220	4,5	20,25	81
60	6	360	9,5	90.25	541.5
65	3	195	14.5	210.25	630.75
70	2	140	19.5	380.25	760.5
75	1	75	24.5	600.25	600.25
Total	**ΣF = 30**	**ΣFX = 1515**		**ΣX^2 =2752.75**	**ΣFX^2 =5667.5**

Based on the frequency table for class IV *pretest scores* , the highest score is 75 and the lowest score is 25. The average (mean) is 50.5. Students who scored above the average (mean) were 3 people with 10%

and students who got scores below the average (mean) were 27 people with 90% with the highest percentage being 30% and the lowest percentage being 10%.

Table 5. Percentage Distribution of *Pre test Values*

Mark	Frequency	Percentage	Information
26-35	7	23.40%	Very less
36-45	6	20%	Very less
46-55	5	16.60%	Not enough
56-65	9	30%	Enough
66-75	3	10%	Good
Amount	**30**	**100%**	
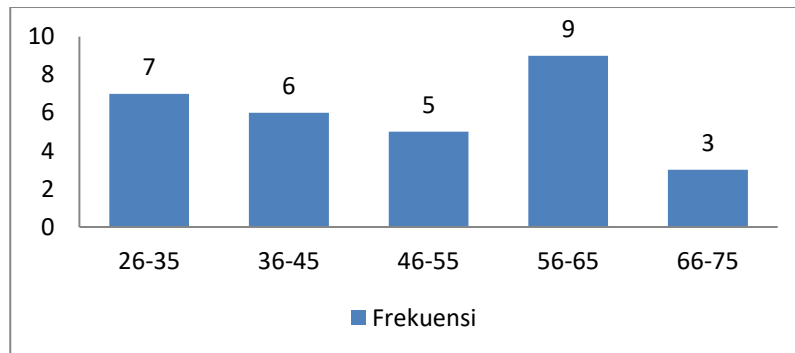
Figure 1. Histogram of *Pre test Value Frequency Distribution*

Results *Posttest* Class IV

After all lesson finished taught with use model learner GRIP, furthermore researcher provide *Posttest* which aims to determine the success rate of the action Which given.

Table 6. *Posttest Data Frequency Distribution*

| X	F	FX	$X=X-\bar{X}$	x^2	Fx^2
66	1	66	-19,13	365.9569	365.9569
68	2	136	-17,13	293.4369	586,8792
76	2	152	-9,13	83.3569	166.7192
80	1	80	-5,13	26.3169	26.3169
84	7	588	-1.13	1.2769	8.9383
86	6	516	0.87	0.7569	4.5414
90	4	360	4.87	23.7169	94.8676
92	4	368	6,87	47.1969	188.7876
96	3	288	10.87	118.1569	354,4707
	n=30	$\sum Fx = 2554$		$\sum x^2 = 960.17$	$\sum fx^2 = 1797,478$

Based on the calculation results obtained, it can be concluded that the average value (mean) is 85.13 with a very good category, the result is a standard deviation of 7.740 and a standard error of 1.46 . At the research implementation stage, *a pretest was given* before *treatment* and *a post-test* after learning was carried out using the *edutainment learning method* . It can be seen that the comparison of these values is through a bar chart where the *post-test value* is higher than the *pretest value*.

**Table 7. Percentage Distribution of Post Test Score**

Mark	Frequency	Percentage	Information
66-68	3	10%	Enough
76-84	10	33.33%	Good
86-90	10	33.33%	Very well
92-96	7	23.34%	Very well
Amount	**30**	**100%**	

Based on the table above the frequency distribution of the *post-test scores* obtained the highest value of 96 and the lowest value of 66. Obtained an average (Mean) of 85.13 and a standard deviation of 7.482. Students who scored above the average (mean) were 17 people with a percentage of 56.66% and students who got scores below the average (mean) were 13 people with a percentage of 43.33%. The following is a picture of the frequency histogram of the student's *post-test scores* :
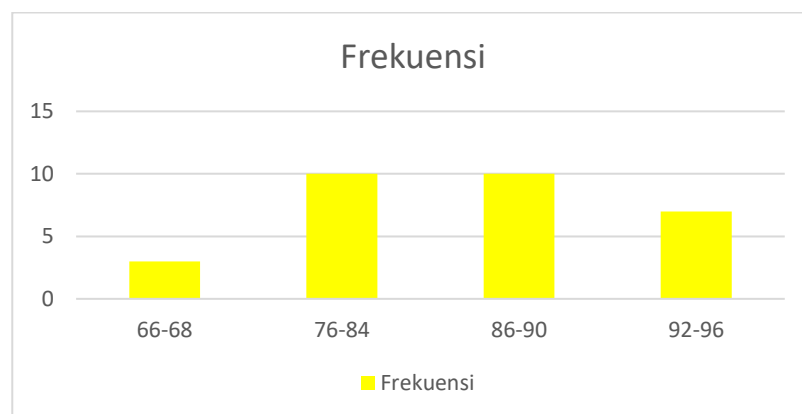
Figure 2. Post-test Frequency Distribution

Based on the data above, it can be seen that the *post-test scores* of students are: 3 students get a score of around 66-68 at 10%, 10 students get a score of 76-84 at 33.33%, 10 students get a score around 86-90 at 33, 33%, 7 students scored around 92-96 at 23.34%. The results of *the Post test scores* show an increase in the learning completeness of class IV students. These results can be seen from the *higher* Post *test Pre test scores* . Where the average value of the Post Test is 85.13 while the average *Pre test value is* 50.5. For more details , it can be seen from the average value of *the Pre test* and *Post test* in the diagram below:
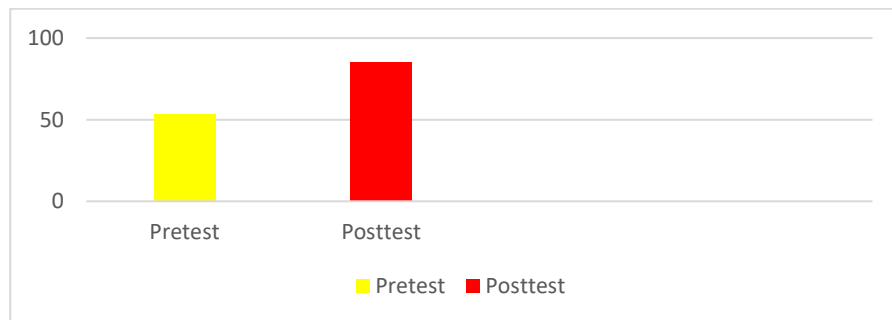
Figure 3. Pre-test and Post-Test Average Score Diagrams

Based on the diagram above, it can be seen that the average post-test score for learning outcomes is higher than the pre-test average score when explaining the Where I Live ub-theme. Based on table 4.5 above, it can be seen that the average value obtained is 81.86 in the very good category.

Table 8. Assessment Criteria

Correlation coefficient	Meaning
80-100	Very well
70-79	Good
60-69	Enough
50-59	Not enough
0-49	Very less

Results of the PAKEM Learning Model Questionnaire

At the end of the lesson, after being given a post test, the researcher will give a PAKEM model questionnaire which aims to see the teacher's activities while teaching using the PAKEM model. The results of the questionnaire values can be seen in the table below:
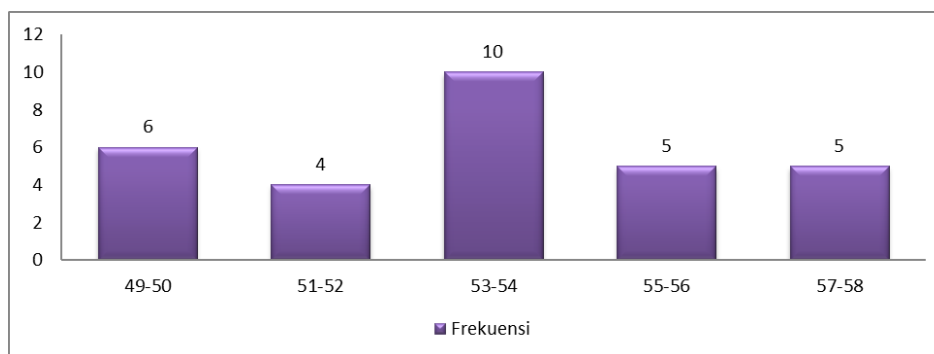
Table 9. Frequency Distribution of Questionnaire Results

X	F	FX	X=x- $\bar{x}$	X2	FX2
49	1	49	-4.56	20.7936	20.7936
50	5	250	-3.56	12.6736	63,368
52	4	208	-1.56	2.4336	9.7344
53	5	265	-0.56	0.3136	1,568
54	5	270	0.44	0.1936	0.968
55	3	165	1.44	2.0736	6.2208
56	2	112	2.44	5.9536	11.9072
57	2	114	3,44	11.8336	23.6672
58	3	174	4,44	19.7136	59.1408
Total	**ΣF=30**	**ΣFX= 1607**		**ΣX2 = 75.98**	**ΣFX2 =197.36**

From the table above it can be seen that the PAKEM learning model questionnaire is: 6 respondents obtained a score of around 49-50 at 20%, 4 respondents obtained a score of around 51-52 at 13.3%, 10 respondents obtained a score of around 53-54 at 33, 3%, 5 respondents obtained a score of around 55-56 at 16.7% and 5 respondents obtained a score of around 57-58 at 16.7%. For more details can be seen from the diagram below:

Table 10. Distribution of PAKEM Model Percentage Yields

Mark	Frequency	Percentage	Information
49-50	6	20%	Enough
51-52	4	13.30%	Good
53-54	10	33.30%	Very well
55-56	5	16.70%	Very well
57-58	5	16.70%	Very well
Amount	**30**	**100%**	

Figure 4. Histogram of Questionnaire Value Frequency Distribution

Normality Test

Normality is done to find out whether the data from the post-test of class IV learning outcomes are normally distributed or not . The data tested were *the pretest* before the action or not using the treatment with the *posttest data* after the action and treatment using the PAKEM model. The results of normality test calculations use the *SPSS ver* 22 program.

Table 11. Normality Test

	Kolmogorov-Smirnov [a]			Shapiro-Wilk		
	Statistics	df	Sig.	Statistics	df	Sig.
Package model	, 114	30	,200 [*]	,949	30	, 161

Decision making by taking a significant 5% is as follows:
1. Significance value (sig) ≤ 0.05 distribution is not normal
2. Significance value (sig) ≥ 0.05 normal distribution

The significance level value used by the researcher is a significance level of 5% or 0.05. Based on the Liliefors test (Kolmogrov Smirnov) a significance of 0.200 was obtained, so it was concluded that $0.200 \geq 0.05$, class IV data were normally distributed. In addition, based on the liliefors test (*shapiro wilk*), it was found that it was 0.161 or concluded that it was $0.161 \geq 0.05$, so class IV data were normally distributed. Normality calculations can also be seen through the normality criterion, namely if $L_{count} \geq L_{table}$ it can be said to be normally distributed. It can be concluded from the results above that the significance value of learning outcomes is $L_{count} \geq L_{table}$ $0.161 \geq 0.161$. Based on these calculations it can be seen that the significance value of the learning outcomes is normally distributed. The following is a picture of the histogram and normality.
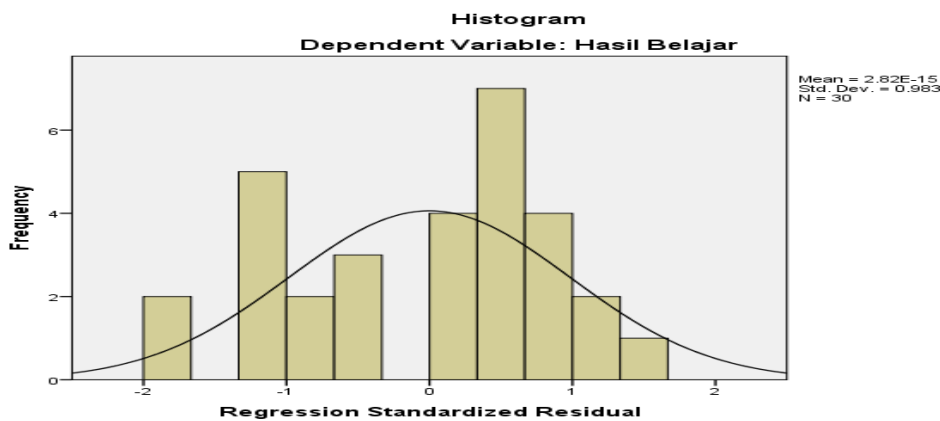

Figure 5. Normality Test Histogram

Data Processing Techniques (Analysis)
Correlation Coefficient Test

The correlation coefficient test is used to determine whether there is influence between the independent variable (X) variable (Y), and the requirements for the correlation coefficient test are by looking at rcount with the *product moment correlation formula*.

Table 12. The Coefficient Value

NO	X	Y	XY	X^2	Y^2
1	52	86	4472	2704	7396
2	55	90	4950	3025	8100
3	57	90	5130	3249	8100
4	50	66	3300	2500	4356
5	54	84	4536	2916	7056
6	56	92	5152	3136	8464
7	56	92	5152	3136	8464
8	58	92	5336	3364	8464
9	53	84	4452	2809	7056
10	55	92	5060	3025	8464
11	50	80	4000	2500	6400

12	50	68	3400	2500	4624
13	58	96	5568	3364	9216
14	54	86	4644	2916	7396
15	54	86	4644	2916	7396
16	53	84	4452	2809	7056
17	53	90	4770	2809	8100
18	57	96	5472	3249	9216
19	54	84	4536	2916	7056
20	50	68	3400	2500	4624
21	52	86	4472	2704	7396
22	52	84	4368	2704	7056
23	53	86	4558	2809	7396
24	49	76	3724	2401	5776
25	55	86	4730	3025	7396
26	58	96	5568	3364	9216
27	53	84	4452	2809	7056
28	50	84	4200	2500	7056
29	52	76	3952	2704	5776
30	54	90	4860	2916	8100
Amount	**1607**	**2554**	**137310**	**86279**	**219228**

To see the effect of the two variables can be done by comparing the rcount with rtable. From the calculation above manually it can be seen that the correlation value is 0.841. Meanwhile, *the SPSS* correlation coefficient test *ver* 22 in the table below:

Table 13. Correlation Coefficient Test

		PAKEM models	Learning outcomes
PAKEM models	Pearson Correlation	1	.841 **
	Sig. (2-tailed)		.000
	N	30	30
Learning outcomes	Pearson Correlation	.841 **	1
	Sig. (2-tailed)	.000	
	N	30	30

El table above shows that the correlation coefficient value is 0.841. If r count ≥ r table 0.841 ≥ 0.361, it means that there is a strong correlation between the PAKEM learning model on the learning outcomes of grade IV students , namely 84.1% and 15.9% influenced by other factors not examined in this study.

Table 14. Correlation Interpretation

No	Mark	interpretation
1	0.00-1.199	Very strong
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 (t-test)

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

Ho: there is no effect of the PAKEM learning model on student learning outcomes

Ha: there is an influence of the PAKEM learning model on student learning outcomes

The t-test criteria can be said to be significant if the price is obtained $p \leq 0.05$. As well as the hypothesis is accepted (Ha) if tcount $\geq$ ttable and rejected (Ho) if $t_{count} \leq t_{table}$ l. The results of the calculation of the t-test hypothesis can be seen in the following table:

Table 15. T-test

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	std. Error	Betas		
1	(Constant)	-50,769	16,562		-3,065	005
	PAKEM models	2,537	.309	.841	8.215	.000

Manual t-test results are 8,215, so it can be seen from the value of $t_{count} \geq t_{table}$, namely $8,215 \geq 2.048$, which means that there is an influence of the PAKEM learning model on learning outcomes.

Discussion Results Study

This research was conducted in class IV SD Negeri 097795 Perasmian. To find out the initial ability of students. The research carried out *a pre- test with* a number of multiple choice questions, with the same type of questions, the results obtained were an average of 50.5, it can be said that the initial ability was lacking. After carrying out *the pre -test ,* the researcher delivered the material using the PAKEM 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. *Post test* results that have been tested at 81.86 can be said *that* the level of success in learning outcomes has increased.

Normality test results at the significance level ($\alpha = 0.05$), with normality that is L count $\leq$ L table , the data is normally distributed with a result of $0.331 \geq 0.161$, so the data can be said to be normally distributed. The results of the correlation coefficient prove that there is an influence of the PAKEM learning model (X) on learning outcomes (Y) with the results of r count $\geq$ r table with a result of $0.841 \geq 0.361$. In the hypothesis testing using the t-test of the data calculations carried out, the test results are t count $\geq$ t table the result is 8,215 ≥ 2.048 with a significance level ($\alpha = 0.05$). This proves that there is a significant influence from the use of

the PAKEM learning model on student learning outcomes in the theme Where I Live, class IV SD Negeri 097795 Inauguration. Based on the results of the data obtained from research at SD Negeri 097795 Perasmian, it can be said that the PAKEM learning model is very effective in thematic learning in class.

CONCLUSIONS AND RECOMMENDATION

Based on the discussion in this chapter, the researcher outlines the conclusions, implications, limitations of the research, and suggestions compiled based on all research activities regarding the effect of the PAKEM learning model (Active, Creative, Effective and Fun + Fun Learning) on the learning outcomes of fourth grade students at SD Negeri 097795 Inauguration of the Learning Year 2022/2023 as follows: PAKEM learning model on the learning outcomes of class I V students at SD Negeri 097795 Perasmian is by giving *pre -test and* post - *test to respondents, the tests are given* 20 questions each . Before being given the treatment, the researcher gave *a pre -test to* find out how far the students' knowledge of the material in theme 8 , sub-theme 1, learning 1 . After getting the results of *the pre -test, the* researcher then gives treatment to the students using the PAKEM learning model. After giving the treatment , the researcher gives *the post -test* . This is done so that the researcher knows how far the students' ability is after being given the treatment.

PAKEM learning model to the learning outcomes of class I V students at SD Negeri 097795, the learning outcomes of students increased. This can be seen from the average *pre - test score* of students of 50.5 which is in the Less category , while the average *Post- test score* is 8.5.13 which is in the very good category. PAKEM learning model on the learning outcomes of students in class IV IV material on the theme of 8 regions where sub-theme 1 of learning 1 takes place at SD Negeri 097795 Inauguration of the 2022/2023 Academic Year. This can be proven by the correlation coefficient value of 0.841 which is in strong interference. T-test calculation results To find out whether the hypothesis is accepted or rejected, $t_{count} \geq t_{table}$, namely $8,215 \geq 2.048$, which means that there is an influence of the PAKEM learning model on student learning outcomes. Thus Ha $_{is}$ accepted and $_{HO}$ is rejected.

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