



## The Influence of PAILKEM (Active, Innovative, Environmental, Creative, Effective and Interesting Learning) on the Literacy Understanding of Class I and Class II Students at SD Negeri 163 Palembang

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**Abstract.** *The aim of this research is to evaluate the influence and effectiveness of the PAILKEM method (Active, Innovative, Environmentally Friendly, Creative, Effective, Interesting Learning) in improving the literacy understanding of class I and II students at SD Negeri 163 Palembang. The research method used was quasi-experimental with a pretest-posttest control group design. The sample consisted of two groups, namely the experimental group which was given learning using the PAILKEM method and the control group which used the conventional method. Data collection techniques include pretest, posttest, and questionnaire, which are analyzed using the N-Gain test, independent sample t-test, and homogeneity test. Research data includes primary data in the form of pre-test and post-test results as well as secondary data collected using a questionnaire to determine student responses to this method. The increase in posttest scores in the experimental group was significant compared to the control group. The t-test results show that there is a significant difference between the experimental and control groups, which means that the application of PAILKEM has a significant influence on increasing students' literacy understanding. This is reinforced by the results of the N-Gain test which meets the high criteria and meets the Indonesian KKTP. The student questionnaire also showed very good responses regarding various aspects of the PAILKEM dimensions. In conclusion, the PAILKEM method is effective and has a positive effect on the literacy understanding of grade I and II students and can be used as an innovative alternative in teaching literacy in elementary schools.*

**Keywords:** *Effectiveness, PAILKEM, Literacy Understanding*

### 1. INTRODUCTION

Education is one of the important components that is the basic foundation of a country's progress. This is because education is the most important role holder in the development movement of a nation and state by creating and forming quality human resources who are able to be competent in their respective fields, so that in the end they can really support the development process of national development.

The preamble to the 1945 Constitution also hints that one of the government's duties is to educate the nation's life. An intelligent nation will be able to bring our country to progress in various aspects of the nation's life. Therefore, the government with its programs in the field of education must be able to improve the quality of education in Indonesia. (R.Damanik, 2019) There are four elements that affect the success of education: (1) teachers, (2) students, (3) management, and (4) financing. These four elements are interconnected and greatly influence the progress of education.

According to Hayati (Hayati et al, 2021), the characteristics of elementary school students in general are play, movement, and direct activities that involve students. Therefore,

the preparation of the learning concept of elementary school students must involve play, movement activities or even involve the environment outside the classroom so that it can attract students' attention in learning. PAILKEM is one of the complete learning models so that it can facilitate students in learning. Therefore, PAILKEM is one of the solutions that can be presented in the learning process to be able to create a learning atmosphere that attracts students' attention, so that students can be motivated in learning and be able to improve students' literacy understanding.

PAILKEM is a learning model that emphasizes activeness, creativity, and attractiveness in the learning process. The method in PAILKEM is expected to make students more enthusiastic and want to pay more attention to their learning, so that they can improve their literacy understanding. Learning with PAILKEM is expected to help students develop according to their learning needs and according to their cognitive level.

The understanding of literacy in Phase A (grades 1 and 2) in the Independent Curriculum, mainly referring to the Decree of the Minister of Education and Culture No. 12/2024, focuses on developing basic reading and writing skills for students. Literacy comprehension can be a person's ability to read, write, understand, and utilize data from written texts in a meaningful way. Literacy understanding in Phase A focuses on developing basic skills that are the basis for further literacy skills in the next phase.

Based on the education report report of SD Negeri 163 Palembang for indicators of literacy ability at the root of the problem, namely the quality of learning and learning methods. Meanwhile, one of the priority recommendations for improving services in the coming year is for educators to implement knowledge about literacy learning methods to improve the student learning literacy process. So one of the author's efforts as an educator who teaches in the lower class in phase A, the author implements knowledge about literacy learning methods to improve the learning literacy process of students in phase A by applying the learning method, namely PAILKEM as an effort to improve literacy skills which is expected to also have an impact on students' literacy comprehension skills.

## **2. LITERATURE REVIEW**

### **Literacy**

The understanding of literacy is now growing and expanding. Literacy is a concept that has a complex, dynamic, and constantly updated meaning through various definitions and perspectives. In layman's terms, literacy is understood as someone who is skilled in reading and writing. However, today's understanding of literacy is interpreted more deeply as an ability

to read carefully, read comprehension, and be able to recommunicate various information obtained both directly and through electronic media.

Literacy is a person's ability to manage and digest all forms of information both verbally and in writing. Literacy skills are the initial provision for a person to be able to use the knowledge and experience they have, which if a person continues to train and develop literacy skills, it will have a positive impact on critical thinking skills. (Oktariani & Ekadiansyah, 2020) states that critical thinking skills are a process of thinking analytically that involves cognitive abilities to be able to decide what to do or believe to lead to the best conclusion. Even at an advanced level, a person can become a problem solver if they have qualified literacy skills. Students who have the ability

According to (Oktariani & Ekadiansyah, 2020) literacy has four levels. The first level is the basic ability to read and write. The second level involves using language for everyday purposes, such as reading instructions or filling out forms. The third level is concerned with the ability to access information and knowledge, while the fourth level involves the ability to transform the knowledge obtained. Literacy serves as a life skill that allows individuals to contribute optimally in society.

### **PAILKEM**

According to Hamzah B. Uno (Uno. & M, 2011) innovative learning strategies are learning processes that are designed in a structured manner and adapted to the needs of students, with the aim of facilitating them in the learning process. In this approach, the relationship between teachers and students must be built in a mutually supportive and constructive manner, creating an environment conducive to the development of students' potential. Teachers who successfully implement innovative learning strategies are able to effectively stimulate and develop student creativity. Increased creativity will strengthen students' intellectual stimulation, which ultimately contributes positively to their learning experience.

The implementation of innovative learning strategies by teachers is not just an option, but an essential responsibility in encouraging the development of student creativity. Teachers need to implement an approach that takes into account the uniqueness of each student, by placing student autonomy as an individual and subject of education at the center of learning planning and implementation. This strategy is known as active learning, where teachers are required to create an atmosphere that encourages students to be actively involved, both in asking questions, formulating questions, and conveying their ideas. In addition, learning should be designed to be fun, creating a comfortable learning environment so that students can fully focus on learning activities.

The PAILKEM learning approach is an educational method designed to integrate various important aspects in the teaching and learning process. This approach aims to create a learning environment that encourages active student involvement, utilizes innovation, and pays attention to environmental aspects, both physical and psychological. PAILKEM also focuses on developing creativity, effectiveness in achieving learning goals, and creating an attractive atmosphere so that students are more motivated to learn.



Pailkem Indicator Image 1

From the various PAILKEM theories that have been described above, it can be concluded that PAILKEM is a student-centered learning strategy. In the implementation of this strategy, the role of teachers is as a facilitator who supports students in the learning process. Students acquire knowledge through their own experiences, not just receiving information from teachers (Fatmah et al., 2016).

### **Milieu**

Learning strategies that utilize the environment are an approach that encourages students to learn not only relying on materials from books or teacher guides. This concept is rooted in contextual learning, which emphasizes the importance of learning about the things that are around the student's environment first. By understanding the surrounding environment, students are expected to be able to make optimal use of the surrounding resources after completing their studies. This strategy teaches students to see the environment as a resource that can be managed and provides added value to them, both in the learning process and in daily life.

Briefly, (Ulian Burju Siadari, Sudarno, 2024) explained that the learning environment should recognize the role of students as the main performing artists, empower dynamic engagement and create their understanding of learning exercises. In addition, the learning environment is based on social learning, where the skills that instructors develop must be aligned with students' inspiration and feelings. Teachers must be able to meet the learning needs

of students with different foundations without separation or other oddities in the learning process. Thus, the learning environment can be the foundation that opens students' initial insights before they go to school, so that students can see the world from a wider range of perspectives.

### 3. METHODS

The type of research used in this study is quantitative with a quasi-experimental method. Quasi-experiments were developed because of the difficulty in obtaining a control group that can fully control external variables that have the potential to affect the results of the experiment (Akbar et al., 2023).

**Sample Table 1**

No.	Class	Number of students	Information	Class
1.	I.A	27	Class I sample that did not receive PAIKEM	Class I Control
2.	I.B	28	Class I sample receiving PAIKEM	Experimental Class I
4.	II.A	26	Class II samples that did not receive PAIKEM	Class II Control
5.	II.B	28	Class II samples that received PAIKEM	Class II Experiment
Total		109		

Source : Student data of SD Negeri 163 Palembang

### 4. RESULTS

The research that has been conducted aims to determine the influence of PAILKEM on the literacy understanding of grade I and grade II students of SD Negeri 163 Palembang, and to identify and analyze significant differences in learning outcomes in literacy comprehension between the group of students in grades I and II who are given PAILKEM and the group of students in grades I and II who are not given PAILKEM. The following is the data from the research results obtained.

**Class I Learning Outcome Table 2**

Data	Pretest		Posttest	
	Control	Eksperimen	Control	Eksperimen
N (number)	27	28	27	28
Average	59,63	67,86	67,41	95,36
Standard deviation	28,485	26,014	28,902	11,049

Minimum value	20	20	10	50
Stage Maximum	100	100	100	100

Based on table 2 above, it can be seen that the results of the pretest of students in grade 1 for the control class and the experimental class are on average 59.63 and 67.86. The results show that students in both classes are in almost the same position and are still below the KKTP limit. However, after the experimental class was given the treatment of applying PAILKEM, it can be seen that the experimental class got an average that was far above the control class. The control class only got an average of 67.41 while the experimental class reached an average of 95.36. This shows that the use of PAILKEM improves the learning outcomes obtained by students or the posttest scores of students in the experimental group. The increase in scores in the control group was not very significant and was still below the KKTP. Furthermore, the difference between the control class and the experimental class will be seen based on the N-Gain of the two classes. Source: data processed 2024

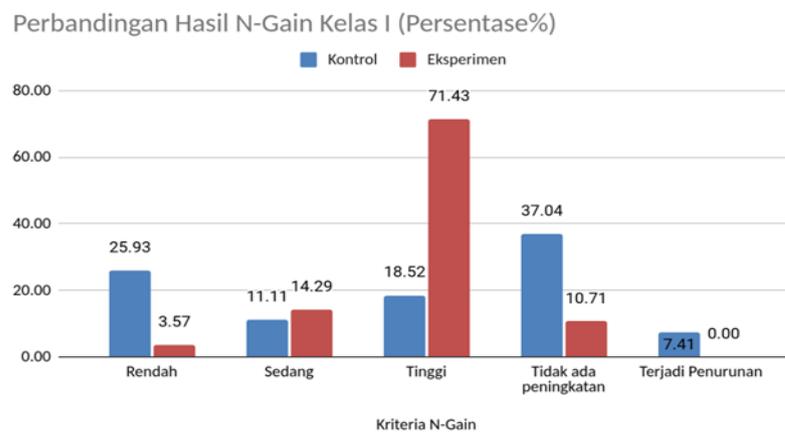


Image 2 Comparison of Class I N-Gain Criteria Results

The diagram shown in the figure above shows that 71.43% of students in the experimental class are in the high criteria, meaning that learning with the implementation of PAILKEM is more effective than 70% in class I. No students experienced a decrease in grades in the experimental class, while in the control class after learning there was a decrease of 7.41%. In the experimental class, it was also found that there was no increase of 10.71%, but this does not mean that the results obtained by students are bad, it's just that the pretest and posttest scores both get high scores so there is no improvement.

The data of research learning outcomes in class II were also taken in two different classes, namely the control class and the experimental class, as seen from the table.

**Class II Learning Outcomes Table 3**

Data	Pretest		Posttest	
	Control	Eksperimen	Control	Eksperimen
N (number)	26	26	28	28
Average	61,73	83,85	73,39	94,29
Standard deviation	24,370	18,128	21,433	9,595
Minimum value	30	40	10	70
Stage Maximum	100	100	100	100

Source: data processed 2024

Based on table 3 above, it can be seen that the results of the pretest of students in grade 2 for the control class and the experimental class are on average at 61.73 and 83.85. In the posttest of the experimental class that was given the treatment of the implementation of PAILKEM, it could be seen that the average student was far above the control class. The control class only got an average of 73.39 while the experimental class reached an average of 94.29. This shows that the application of PAILKEM improves the learning outcomes or posttest scores of students in the experimental class. Furthermore, the difference between the control class and the experimental class will be seen based on the N-Gain of the two classes.

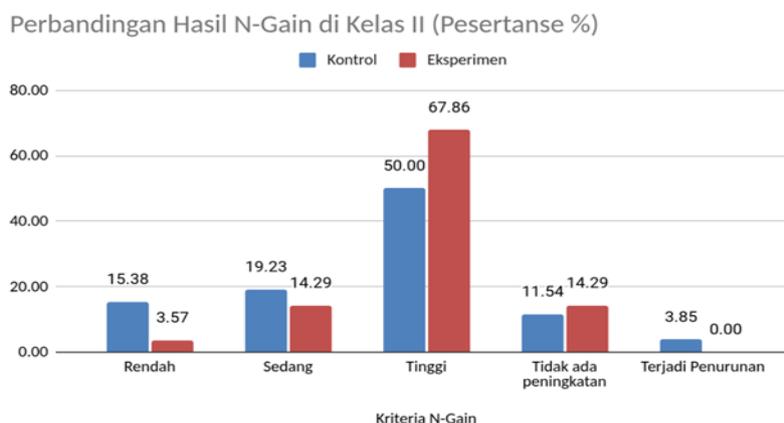


Image 3 Comparison of Class II N-Gain Criteria Results

The diagram shown in figure 3 shows that 67.86% of students in the experimental class are at a high standard, meaning that learning with the implementation of PAILKEM is more than 60% effective in grade II. No students experienced a decrease in grades in the experimental class, while in the control class after learning there was a decrease of 3.85%. In the experimental class, it was also found that there was no increase of 14.29%, but this does not mean that the results obtained by students are bad, it's just that the pretest and posttest scores both get high scores so there is no improvement.

Based on the description of the data from the results of the above study, it can be concluded that the implementation of PAILKEM in class I and class II is very effective. This means that PAILKEM can be applied well in grade I or grade 2. However, in the data that has been described above, a difference in the percentage of effectiveness in classes I and II is found. Based on figures 2 and 3, it can be seen that the percentage of learning effectiveness is higher in grade I. This shows that the implementation of PAILKEM in grade I is slightly more effective compared to grade II.



**Image 4 of Learning Activities with PAILKEM in the Classroom**

Based on the analysis of student response questionnaires in grades I and II, it shows that the implementation of PAILKEM in grades I and II received a very good response, because almost all students agreed that learning activities with PAILKEM helped them to improve their literacy understanding. PAILKEM applied in the experimental classroom also has a positive impact on student learning outcomes.

### **Discussion**

The results of the descriptive analysis showed that the learning outcomes of students, in this case, the literacy ability of students in the experimental class were far superior to learning that did not use PAILKEM. The results of statistical data analysis also showed that the implementation of PAILKEM (Active, Innovative, Environmental, Creative, Effective and Interesting Learning) had a significant effect on the literacy understanding of grade I and II students at SD Negeri 163 Palembang. The implementation of PAILKEM in grades I and II also has a high effectiveness rate of more than 70% and receives an excellent response from students in grades I and II. This is in line with the findings (Sinaga et al., 2023) that PAILKEM is very helpful in improving students' enthusiasm for learning and students' ability to read and numerate elementary school students. Broadly speaking, according to (Ulian Burju Siadari, Sudarno, 2024), Pailkem creates a fun learning atmosphere so as to motivate students in understanding what they are learning at school. Students who are active in the learning process is one of the indicators of bankruptcy, the active participation of students and teachers physically, mentally, emotionally, morally, and spiritually greatly encourages the creation of a

pleasant learning environment. In line with the results of the analysis of the response questionnaire which showed that students liked an innovative and interesting learning atmosphere, in addition to the important point of grade I and grade II is that they like learning outside the classroom. This is one of the factors that supports PAILKEM to improve students' literacy skills.

PAILKEM involves students to be active during the learning process where teachers play a very important role in managing the learning process. (Maujud et al., 2022) emphasizes that active learning involves students in a tangible form providing experience to students so that what they have learned can last longer. The application of PAILKEM allows students to interact with the community and the surrounding natural phenomena in a more significant way. This gives them the opportunity to reflect, re-engineer in an effort to develop the knowledge and experience they have previously gained in order to create something new. (Maujud et al., 2022).

PAILKEM is one of the innovative learning in improving students' literacy understanding. (Ulian Burju Siadari, Sudarno, 2024) Innovative learning is the process of interpreting life as a lesson that is not limited physically but includes activities, learning outcomes, and social interaction. Innovative learning encourages teachers to collaborate both with students and with peers to improve student learning needs, for example by adjusting teaching media to students' learning styles, and others. (Magdalena et al., 2020) which states that innovation encourages the formation of students' character in the learning process because there is a balance of left and right brain functions so as to build confidence in students.

The findings in the PAILKEM implementation response questionnaire both in grade I and in grade II show that the environment has a good impact on both grade levels in improving literacy understanding. Soewito (2017) explained that the environment (physical, social, or cultural) is an effective and efficient learning resource and does not require large costs in increasing students' interest in learning. Creative learning is one of the teaching strategies that aims to improve students' thinking skills. Innovative is also intended for educators to create varied learning activities so that they can meet various skill levels of students. (Soewito, 2017; (Masitoh, 2019). The use of the environment can develop a number of student abilities, one of which is student literacy skills.

Overall, each aspect of PAILKEM is related to each other and plays an important role in supporting students to develop themselves during the learning process. This method has proven successful in improving students' literacy understanding at SD Negeri 163 Palembang. By implementing PAILKEM, a dynamic, innovative, creative, interesting, and fun learning

environment is created. This keeps students from feeling bored and bored and stimulates their creativity. An encouraging learning approach can increase students' motivation and enthusiasm, so that they participate more actively in learning. Interested students will focus their attention more on the material being taught, which in turn will help them understand the content better and improve their learning outcomes. PAILKEM is a learning that focuses on student activities that can be applied and adapted to learning needs, it is expected to trigger students' motivation to learn and ultimately improve their learning achievement (Fatmah et al., 2016).

## **5. CONCLUSION**

Based on the results of the research, the conclusions of this study are as follows:

1. The research shows that there is an influence of PAILKEM on the literacy understanding of grade I and grade II students of SD Negeri 163 Palembang with primary and secondary data. The primary data, namely the results of the pretest and posttest that have increased, can be seen from the comparison graph of N-Gain results using the normalized Gain criterion at the high criteria, namely in the Experimental Group for class I of 71.43% and class II of 67.86%, while the secondary data shows that the graph of the student response questionnaire for each dimension of PAILKEM received a very good response. Based on these data, the PAILKEM method is influential and can improve students' literacy understanding.
2. The application of PAILKEM learning in the Experimental group is more effective as seen from the learning results with the N-Gain score that the experimental group of class I of 78.81% and class II of 76.14% is more than 76, which is effective, in accordance with the list of criteria for determining the level of effectiveness and has met the Indonesian KKTP, which is above 70. This shows that teachers in the Experimental class who use the PAILKEM learning method on literacy understanding are more effective in improving the quality of learning.
3. This study showed a significant difference in literacy understanding between the group of students in grades I and II who were given PAILKEM and the group of students in grades I and II who were not given PAILKEM with the results of the T Test (Independent Sample Test). The results of the Class I T Test show that  $\text{sig. } 0.000 \leq 0.05$  ( $\alpha = 0.05$ ) with  $t$  calculated 4.770  $t$ table 2.006 while in the Class II T test  $\text{sig. } 0.004 \leq 0.05$  ( $\alpha = 0.05$ ) with  $t$  calculated 2.672  $t$ table 2.007 then  $H_0$  is rejected. This means that  $H_a$  is accepted, namely there is a significant difference between the control class and the experimental class or the

application of PAILKEM has a significant effect on the literacy understanding of grade I and II students at SD Negeri 163 Palembang.

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