

The Use of Peer Tutoring-Based LKPD in Cooperative Learning to Improve Student Learning Outcomes in Elementary Schools

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Abstract

The purpose of this study was to determine the effect of using Peer Tutoring-based LKPD on the learning outcomes of grade V students of SD Negeri 3 Gedong Aer, Bandar Lampung City in the 2023/2024 academic year. This research is a quantitative research using Quasi Experimental Design and Pretest-Posttest Control Group Design. Data collection techniques in this study include interviews, observations, and tests of students' Indonesian language learning outcomes. The analysis techniques used are descriptive statistics and t-tests. Based on the results of the t-test on the increase in student learning outcomes $0.00 < 0.005$, and with an N-gain of 0.00, it meets the fairly effective category. It can be concluded that Peer Tutoring-based LKPD can improve the Indonesian language learning outcomes of grade V students of Elementary School 3 Gedong Aer, Bandar Lampung City, so that students can be more active during learning by using Peer Tutoring-based LKPD on Indonesian language material, namely understanding Procedural Texts.

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INTRODUCTION

Education is the most useful and important thing in every human life. At this time, achievement in educational success requires results as education that can be meaningful and useful in life. To prepare superior humans and good human resources who can compete in facing globalization, therefore education must be applied evenly and systematically. Indonesian language education must be obtained by students so that they have four language skills such as reading, listening, hearing, and writing. These four language skills are the basis of student knowledge so that they can improve the foundation of national development and improve the quality of learning and student abilities Arco-Tirado et al. (2020).

Peer tutoring, as stated by Lisma Warni (2023) is a learning method that allows students to learn and talk to each other. Students in this method are very absorbent, and they act as tutors to provide materials and exercises to their friends. Referring to the results of Istiqoh's (2021) research entitled "Implementation of the Cooperative model based on peer tutoring", peer tutoring based on the process of developing an effective model improves student learning outcomes. Furthermore, this is also supported by data presented by Dela Anggraini et al. (2022) conducted a study entitled "The application of the peer tutoring learning method to learning outcomes can increase student activity. The results are that almost all students are active and very involved in learning and group activities. One of the media that can support student learning activities is the collaboration of the peer tutoring method using LKPD teaching materials.

According to Meri Suprihatin (2023), LKPD (Student Worksheet) is a teaching material that needs to be prepared by educators to improve students' learning outcomes because the learning material presented can improve the ability to understand learning material and solve problems in their own way.

Curriculum development is an instrument to improve the quality of education. The correct education policy will be seen through the implementation of the curriculum that is applied because "the curriculum is the heart of education" which determines its progress. According to Law No. 20 of 2003, "the curriculum is a set of learning plans related to the objectives, content, teaching materials and methods used and used as guidelines in organizing learning activities to achieve a national education goal."

According to Setiawan et al. (2022), education aims to develop individual potential to the maximum. The learning process in schools (Annida et al., 2022) is the main arena for achieving this goal. Teachers, as learning facilitators, have a crucial role in designing and implementing learning activities. Thorough learning preparation, as carried out by Nurhasanah & Sobandi (2016), is an important first step. However, other factors such as student interest also influence the effectiveness of learning."

The success of students in achieving learning objectives is greatly influenced by the quality of the learning process they undergo (Fauzi, 2022). According to Festiawan (2020), learning outcomes are seen as concrete evidence of behavioral changes that occur due to learning experiences. Mulyono et al., (2018) stated the importance of interaction with the environment in the learning process. Meanwhile, (Elde Mølstad & Karseth, 2016) argue that learning outcomes reflect the

understanding and abilities of students. In addition, according to Gagne in Juniarsi (2019), a more detailed framework for learning outcomes is provided, namely dividing learning outcomes into five interrelated categories, namely verbal information, intellectual skills, motor skills, attitudes, and cognitive strategies.

Based on observations in class V of SD Negeri 3 Gedong Air, a number of obstacles that hinder the learning process were revealed. Students often come to class without adequate preparation, are less responsive to teacher questions, and appear less interested in the subject matter. This is reflected in the average daily test scores which are below the KKM. As an effort to overcome this problem, researchers suggest the use of peer tutor-based LKPD which can increase student motivation and involvement. In addition, it is necessary to adjust the learning method to be more relevant to the curriculum and student needs."

Educators also provide the freedom to choose various tools and learning models that can facilitate and fit the learning process for students. According to Hamalik in (Astutik, 2020) states that currently there are developing student learning models that are intended to provide more opportunities for students to actively learn. One model that involves students in learning is the peer tutor learning model. According to Silberman in (Wisudawati et al., 2019) explains that learning with peer tutors is learning that provides an opportunity for one or several students who are considered capable of providing teaching to other students. According to Sari et al. (2020) Students in addition to being tutors can provide reinforcement in the form of verbal persuasion, provide direction towards learning success according to their experiences and reinforcement in growing a sense of self-confidence according to Yoga Wisudawati et al. (2019). In peer tutor classes,

the educator's duties are as facilitators, mediators, motivators, and evaluators. (Munawaroh et al., 2016) also explained that educators also play a role in providing learning facilities, so that the learning atmosphere is not monotonous and boring. One learning model that can support this problem is by using a cooperative learning model that involves students in learning with peer tutoring-based LKPD media.

According to Prasetyo et al., (2018), the use of Cooperative Learning can improve student learning outcomes, social interaction skills, and encourage an attitude of accepting one's own and others' shortcomings, while increasing self-confidence. Pasaribu (2019) also added that cooperative learning allows students to meet the needs of critical thinking, problem solving, and combining knowledge with skills. Various studies have been conducted to see the effect of Cooperative Learning in mathematics learning, and the results show that this approach is effective in improving learning outcomes. However, these studies use various types of Cooperative Learning, such as the Make a Match and Think Pair and Share (TPS) types.

Based on the description above, the researcher is of the view that the application of the Cooperative Learning model with LKPD media based on Peer Tutoring provides opportunities for students to be able to actively carry out learning by utilizing other students who have greater abilities to help their friends who have difficulty understanding the material.

RESEARCH METHODS

This research was conducted at SDN 3 Gedong Air, Bandar Lampung, in May of the 2024 academic year. The research population consisted of all fifth grade students. The research sample included class VB as the

experimental group which was given treatment with the experimental method, and class VA as the control group which used conventional learning methods, with a total of 30 samples. Each class, both the experimental and control groups, consisted of 15 students, all of whom would work on the pretest and posttest .

Types of research

This study uses a quantitative method. According to Sugiyono (2021), quantitative research aims to see the relationship between variables that are causal, so in this study there are independent and dependent variables. The focus of the study is to measure the extent to which the independent variable affects the dependent variable. This study uses a quasi-experimental design with a Non-Equivalent Control Group Design, which involves a pretest and posttest. Sugiyono (2019) explains that this design involves two groups, namely the experimental group and the control group. The experimental group received treatment in the form of implementing the Cooperative Learning model with LKPD media based on Peer Tutoring, while the control group used a conventional learning model.

Procedure

In this study, the treatment of the experimental group was carried out in the Indonesian language subject using a quantitative approach. The following is the research design:

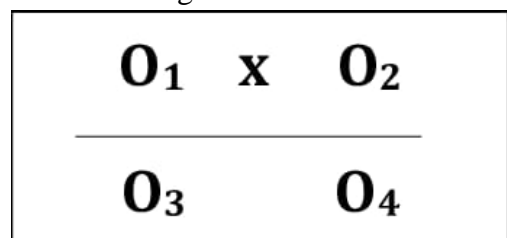


Figure 1. Pretest-Posttest ControlGroup Design

Information :

O1: giving pretest to experimental group

O2: posttest administration to experimental group

O3: administration of pretests to the control group

O4: administration of pretest to control group

X: Treatment with Peer Tutoring-based LKPD

Data Analysis Techniques

The data collection method in this study was carried out using multiple-choice tests in the pretest and posttest as many as 20 questions. The test questions were arranged based on learning outcome indicators, which were used to assess the extent of the development of students' learning outcomes. The learning outcome indicators include questions containing values C4, C5, and C6. According to Gagne in Nasution (2018), learning outcome indicators include intellectual skills, cognitive strategies, attitude changes, verbal information, and motor skills.

This study was conducted in 6 meetings with the material of understanding procedural texts. The first meeting began with the implementation of a pretest on both groups. The second, third, fourth and fifth meetings were given treatment to the experimental group. The sixth meeting ended with the implementation of a posttest on both groups. The instrument used was a multiple-choice question instrument that was tested on students in the study and was validated first by expert lecturers.

The research data were analyzed statistically by testing the pretest, posttest, and N-gain in the experimental and control classes. Testing was carried out through normality tests, homogeneity tests, and statistical tests in the form of t-tests (Independent Samples T-Test) using the IBM SPSS Statistics 25 program. In this hypothesis test, the level of significance (α) used was 0.05 or 5%. To determine the increase in student learning outcomes, the formula developed by Hahe in Mariya (2023) was used

with the following formula.

$$\langle g \rangle = \frac{(\% \langle Sf \rangle - \% \langle Si \rangle)}{(100 - \% \langle Si \rangle)}$$

Information :

$\langle g \rangle$ = normalized gain

$\langle Sf \rangle$ = post test score

$\langle Si \rangle$ = pre-test score

The average N-gain value obtained was then interpreted based on Table 1 below.

Table 1. Normalized gain values and their classification .

Average	Classification
$(g) \geq 0,7$	Tall
$0,3 < (g) < 0,7$	Currently
$(g) < 0.3$	Low

Source: Hake in (Mariya, 2023)

RESEARCH RESULTS AND DISCUSSION

The results of the study were obtained using 20 multiple-choice pretest and posttest questions. The test questions were compiled based on learning outcome indicators as a reference to assess the extent of a person's learning outcomes. Learning outcome indicators used questions containing C4, C5 and C6 values. Before being used, the questions must go through stages of validity, reliability, difficulty level, and question discrimination.

Effectiveness Analysis

After the pretest and posttest questions were given to the experimental and control classes, the researcher conducted a calculation process using the IBM SPSS Statistics 25 application program to determine the

conclusiveness of using Peer Tutoring-based LKPD with the Cooperative Learning model. The following is the data analysis used in this study.

Comparison Results of Pretest and Posttest

In this study, the N-Gain results were used to determine how much improvement there was in Indonesian language learning outcomes for fifth grade students who used Peer Tutoring-based LKPD and students who followed conventional learning.

Table 2. Comparison of *Pretest* and *Posttest* Data for the Experimental Group

	<i>Pretest</i>	<i>Posttest</i>
Average	44,66	77.33
Minimum Value	20	60
Maximum Value	70	90

N-Gain

Tabel 3. Hasil N-Gain

Descriptive Statistics

	N	Minimum	Max	Mean	Std. Deviation
<i>pretest</i>	15	20	70	44.67	15,055
<i>post test</i>	15	60	90	76.67	10,465
N-Gain	15	.00	.83	.5652	.21037
Valid (listwise)	N15		Criteria		Currently

Based on the presentation of table 2 above, it can be said that the results of the pretest and posttest in its application with field trials have increased.

Normality Test

Table 4. N-Gain Results

Tabel 4. Hasil Uji-T sampel Test Paired Differences						
		95% Confidence Interval	Std. of the Error	Upper	Lower	Sig. (2-tailed)
	Rata-rata	Deviation	Mean	Upper	Lower	
Paired Sample 1	Pretest - Posttest	13,732	3,546	24,395	-32,000	0,000

Uji Homogenitas

Tabel 5. Hasil Uji Homogenitas

	Levene Statistic	df1	df2	Sig.	Keterangan	
Eksperimen	Based on Mean	2,388	1	28	.133	Homogen
Kontrol	Based on Median	1,615	1	28	.214	
	Based on Median and with adjusted df	1,615	1	24,392	.216	
	Based on trimmed mean	2,432	1	28	.130	

Uji Hipotesis

	Kolmogorov-Smirnov ^a		Shapiro Wilk		Sig.	
	Statistics	df	Statistics	df		
Pretest	.172	15	.200*	.927	15	.246
posttest	.205	15	.091	.882	15	.052

*. This is a lower bound of the true significance.
a. Lilliefors Significance Correction

In the following table, the results of hypothesis testing using sample test hypothesis testing. In the table data above, the learning outcomes of students between the experimental class and the control class both experienced an increase in learning outcomes. The data above sig (2-tailed) 0.00 <0.05 so it can be concluded that there is a difference in Indonesian language learning outcomes in students who use Peer Tutoring-based LKPD

with students who do not use LKPD.

The results of this study are in line with the research conducted by (SITASI 6) entitled the influence of Peer Tutoring-based LKPD to improve the results of grade V Elementary School students, namely showing that there is an increase in learning outcomes and student activity in learning. In addition, it is supported by research (SITASI 7) that Peer Tutoring-based LKPD teaching materials are very effective in improving learning outcomes and the activity of students who have language skills such as listening, reading and writing. The following are student activities in working on questions and learning with Peer Tutoring-based LKPD.

When implementing the results of using LKPD based on Peer Tutoring, the following image can be seen:



Figure 2. Students Working on *Pretest Questions*



Figure 3. Students Working on *Posttest Questions*



Figure 4. Students carry out the results of activities according to the LKPD



Figure 5. One of the Students as a Tutor



Figure 6. LKPD Cover View

CONCLUSION

The results of this study indicate that the use of Peer Tutoring-based LKPD in the Cooperative Learning model has been proven to improve the learning outcomes of fifth grade students of State Elementary School 3 Gedong Aer, Bandar Lampung City on Indonesian language material, namely Procedure Text. This is indicated by the results of data analysis using the independent sample t-test showing significance (2-tailed) less than

the significance of α ($0.00 < 0.05$), which means that the use of Peer Tutoring-based LKPD is better than classes using school textbooks or lecture methods. In addition, based on N-gain, it shows that it meets the criteria for being quite effective with an acquisition of 0.21. Therefore, it can be concluded that the learning outcomes of language skills in students increase with the use of Peer Tutoring-based LKPD when learning Indonesian language material on procedure text in grade V.

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