



Research Article

The effect of picture and picture learning model on learning outcomes of junior high school madani Makassar students

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ABSTRACT

The picture and picture learning model is a learning strategy through the use of image media as learning media which are paired and sequenced logically. This learning model involves students to participate in learning activities that are innovative, creative, and fun. In addition, the picture and picture learning model is to organize the learning experience so that it can be used as a reference or guide for learning designers and teachers in planning teaching and learning activities. This research is an experimental and non PTK research. The data from this study were analyzed through descriptive statistical analysis and independent T-test which were first carried out by the process of normalization and homogenization of data. This study aims to examine the effect of the picture and picture learning model in improving learning outcomes at Madani Junior High School Makassar. The results showed that the picture and picture learning model had a significant influence on the learning outcomes of class VII Junior High School Madani Makassar. This learning model has proven to be effective in providing opportunities for students to work together with fellow students through structured, group tasks, so that open interactions and effective interdependence relationships occur among various group members.

Keywords: learning outcomes, models, picture and picture learning

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INTRODUCTION

Learning is an activity that is carried out intentionally or unintentionally for each individual, resulting in a change in attitude, mentality, and knowledge. The learning process requires interaction with the surrounding environment which can be done by seeing, discovering and also imitating. The main purpose of learning can be achieved through several learning models in the school environment, while the learning model can be defined as a systematic procedure or form of approach in organizing learning experiences to achieve learning objectives. Aqib (2009) suggests that the learning

model is a conceptual framework that describes a systematic procedure in organizing learning experiences so that it can be used as a guide for learning designers and teachers in planning teaching and learning activities. Picture and picture is a cooperative learning model and prioritizes cooperation by using picture media that are sorted and paired into a logical sequence (Kurniasih & Sani, 2015). The same thing according to Huda (2013) who reported that picture and picture is a learning strategy through the use of image media as learning media that are paired and ordered logically. This learning model involves students to participate in learning activities that are innovative, creative, and fun. Innovative is every learning must provide something new, different, and always attract the attention of children. While creative is learning that can trigger interest in producing something or solving problems using selected or determined methods.

Some of the advantages of the picture and picture learning model are (1) the material taught is more focused because at the beginning of learning the teacher explains the competencies that must be achieved and the material briefly first; (2) students catch the teaching material faster because the teacher shows pictures of the material being studied; (3) can develop students' reasoning power to think logically through image analysis; (4) can increase students' responsibility because the teacher asks the reason for the students to sort the pictures; (5) learning is more memorable because students can observe directly the pictures that have been prepared by the teacher (Istarani, 2011). Learning outcomes are changes in behavior that occur after following the teaching and learning process in accordance with educational goals. Learning outcomes can reflect the level of student success in studying school subject matter which is expressed in scores obtained from test results regarding a certain number of subjects (Susanto, 2016). Learning outcomes are influenced by internal factors (internal factors) and external factors (external factors). Internal factors are physical, psychological, and fatigue factors. External factors include family factors, school factors and community factors eg teachers, curriculum, and learning models (Slameto, 2013). Based on the foregoing, this research was conducted to examine the effect of the picture and picture learning model in improving the learning outcomes of junior high school Madani Makassar.

METHODS

This research was conducted in September-December 2021. This research is located in junior high school Madani Makassar Class VIIA & VIIB which is located on Jalan Batua Raya 5 No.10 Panakkukang District, Makassar City. This research is an experimental study consisting of all seventh grade students of Madani Junior High School as the population in the study, while the sample in this study consisted of two homogeneous classes, namely class VII A (20 students) and class VII B (20 students). The data analysis technique used in this research is in the form of descriptive analysis and inferential statistics. Descriptive statistical analysis is intended to describe the score of student learning outcomes in each treatment group. The guidelines used to categorize student learning outcomes are to follow the procedures from the Directorate of Guidance to the Directorate General of Primary and Secondary Education, as shown in Table 1 below:

Table 1. Criteria for categorizing student learning outcomes score

Mastery level (%)	Category of learning outcomes
90-100	Very high
80-89	high
70-79	Medium
<70	Low

Overall descriptive tests and inferential statistics were applied through the use of SPSS 20. Inferential statistical test was used to determine the effect of the picture and picture learning model on learning outcomes of Junior High School Madani Makassar. The type of analysis used is the t-test which is first carried out by the normality test analysis. The normality test is carried out using the Shapiro Wilk.

$$W = \frac{1}{D} \left[\sum_{i=1}^k a_i (x_{n-i+1} - x_1) \right]^2$$

Explanation:

$$D = \sum_{i=1}^n (x_i - \bar{x})^2$$

a_i = coefficient test
 x_{n-i+1} = value $n-i+1$ in data
 x_i = value $-i$ in data $-i$
 \bar{x} = mean

RESULTS AND DISCUSSION

The table 2 above shows the use of the picture and picture learning model in class A which has an average (mean) of or 84,7000 and has a minimum value of 42.00 while the maximum value of 95.00 with Std. Division 12.81898. Class B has an average (mean) of 82.2000 and has a minimum score of 40.00% while the maximum value is 88.00% with Std. Division 31,41876. This shows that the learning outcomes of Class VII students of Madani Makassar Junior High School are in the high category (according to the category of Table 1). In the table 2 also describes the completeness of high student learning outcomes while using the picture and picture learning model. The learning model has increased student cooperation during the learning process so as to achieve satisfactory results. This is in accordance with [Yusal \(2020\)](#) who said that the results of good student learning mastery are satisfactory learning outcomes in accordance with learning objectives, where students carry out learning models that have been happily applied and a good cooperation system. The application of a complete learning model is one of the factors that determine success in teaching and learning achievement.

Table 2. Results of descriptive analysis of learning outcomes picture and picture learning model descriptive statistics

	N	Range	Minimum	Maximum	Mean	Std. Deviation
Class A	20	53.00	42.00	95.00	84.7000	12.81898
Class B	20	48.00	40.00	88.00	82.2000	13.41876
Valid N (listwise)	20					

Normality test in research aims to determine the data of a study has a normal distribution or not. Data that is normally distributed is a must as well as an absolute requirement that must be met in the use of parametric statistical analysis. Based on Table 3 below, it shows that the use of the picture and picture learning model has resulted in data that is normally distributed and is considered to be able to proceed to other statistical tests because it has a significance level of > 0.05 ; with a significance level of 0.116 (class A) and 0.200 (class B) through the Shapiro-Wil. The significance level values based on the Kolmogorov Smirnov test are 0.084 (class A) and 0.114 (class B).

Table 3. Normality test results learning outcomes picture and picture learning model tests of normality

	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
	Statistic	Df	Sig.	Statistic	Df	Sig.
Class experiment	.181	20	.084	.924	20	.116
Control	.214	20	.114	.883	20	.200

a. Lilliefors Significance Correction

Based on the results of the homogeneity test of student learning outcomes at Junior High School Madani Makassar (Table 4), it shows that the research data is considered homogeneous so that it can be continued to the independent T-test stage. The research data is considered homogeneous when it has Mean > 0.05 , while the results show that the learning outcomes data through the use of the picture and picture learning model obtain on Mean value of 0.868 or a significance level of > 0.05 .

Table 4. Results of homogeneity of learning outcomes of picture and picture learning model Test of homogeneity of variances

		Levene Statistic	df1	df2	Sig.
Learning outcomes of class VII A & B	Based on Mean	0.028	1	38	0.868
	Based on Median	0.017	1	38	0.897
	Based on Median and with adjusted df	0.017	1	37.998	0.897
	Based on trimmed mean	0.018	1	38	0.895

T-independent analysis was used to determine the difference in mean between two independent groups or two unpaired groups with the intention that the two data groups came from different subjects. The results of the independent T-test (Table 5) show that the use of the picture and picture learning model has a significant effect on the learning outcomes of class VII Junior High School Madani Makassar. This is evidenced by the results of the Independent sample t-test <0.05 (0.048). The same thing happened to [Nurlanti & Tilora \(2020\)](#) who reported that the use of the picture and picture learning model was very good in improving student learning outcomes and motivation at school.

Table 5. Independent T-Test of Class VII Madani Junior High School Makassar

Explanation	Class A	Class B
<i>Descriptive Analysis</i>		
Range	53.00	42.00
Minimum	42.00	40.00
Maximum	95.00	88.00
Mean	84.7000	82.2000
<i>Shapiro Wilk</i>		
Sig	0,116 > 0,05	0,200 > 0,05
<i>Homogeneity Test of Levene's</i>		
Based On Mean	0,868 > 0,05	0,868 > 0,05
<i>t-independent</i>		
Student learning outcomes of class VII A and VII B	Sig 0,048	Sig 0,048

CONCLUSION

The use of picture and picture cooperative learning model has a significant influence on the learning outcomes of class VII Junior High School Madani Makassar. This learning model has proven to be effective in providing opportunities for students to work together with fellow students through structured, group tasks, so that open interactions and effective interdependence relationships occur among various group members.

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