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Comparison of the Picture and Picture Learning Model with the Examples Non-Examples Learning Model on the Learning Outcomes of Students at SMPN 2 Tandukkalua, Mamasa District

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ABSTRACT

This study aims to determine the comparison of learning outcomes of students taught using the Picture and Picture Learning Model with Examples Non-Examples at SMPN 2 Tandukkalua, Mamasa District. This study uses two groups, namely class VIII A with 22 students and class VIII B with 19 students. The variables in this study consist of independent variables, namely the Picture and Picture learning model and Examples Non-Examples, while the dependent variable is learning outcomes. The material taught is the digestive system, and this type of research is quantitative research aimed at determining differences in student learning outcomes. Data collection techniques use tests and documentation. The data analysis techniques used are descriptive analysis and inferential statistical analysis. The results of the study through descriptive analysis show that the learning outcomes of class VIII A students using the Picture and Picture Learning Model (88%) scored between 69.9 and 90.3 with an average of 81, while the learning outcomes of class VIII B students using the Examples Non-Examples Learning Model (70%) scored between 58.2 and 79.6 with an average of 69. The results of the inferential analysis calculation show that the obtained t-value is 2.684 < t-table 3.686 with a significance level of 0.05. Based on these research results, it can be concluded that there is a difference between the two learning models, Picture and Picture, and Examples Non-Examples, on the learning outcomes of eighth-grade students at SMPN 2 Tandukkalua, Mamasa District.

Keywords: Comparison of Learning Outcomes, Picture and Picture Learning Model, and Examples Non-Examples Learning Model

INTRODUCTION

Fonda (2018) explains that Education describes an effort to develop the abilities of learners. Education is a learning process that can shape the expected intellectual changes in learners. Education is also very important for learners to train and develop their knowledge and potential so that they can change for the better through the learning process. Education and learning are interconnected because learning is a process that occurs within a human throughout their life, from birth until the end of life. Every human being undergoes continuous physical and spiritual changes since birth. Humans are rational beings and have the potential to grow and become better supported by the learning process.

The teaching and learning process at SMPN 2 Tandukkalua, Mamasa District, has been running smoothly and well so far. However, based on initial observations of the students, it was found that the level of interest among students in learning is decreasing. During the classroom learning process, some students do not pay attention to the teacher but are busy talking with their peers. Additionally, students are accustomed to old habits of relying on teacher explanations using lecture methods.

Monotonous learning will make students bored. Students rarely express their difficulties, so teachers think that students already understand the taught material. This impacts the students'

learning outcomes, which are still low and have not reached the Minimum Completion Criteria (KKM) of 70. One way for teachers to create a conducive and enjoyable learning environment is by selecting the appropriate learning model or method, which can make students more enthusiastic about learning.

In response to the aforementioned issues, the researcher believes that the learning process needs improvement, and therefore, a new method is needed to enhance students' learning outcomes. The researcher attempts to implement two learning models: the Picture and Picture learning model with Examples Non-Examples. Both of these learning models are cooperative learning models, where students are required to be more active in learning in the classroom. The improvement of learning outcomes and the development of students' skills can be facilitated by meaningful and comprehensive learning models (Andariana, Zubaidah, Mahanal, Suarsini, 2019).

The Picture and Picture model is an active learning model that relies on images as a medium in the learning process. The images provided in the learning process are paired with each other or arranged in a logical sequence. It is expected that students will find it easier to understand the taught material using this learning model (Tampubulon, 2011).

The Examples Non-Examples learning model is a learning model that uses images as a learning medium. It is expected that the visual media will help students develop their thinking patterns. This model aims to encourage students to think critically in analyzing images and provide descriptions according to their knowledge of the material depicted in the images (Huda, 2014). The appropriate model in learning can prevent learners from misunderstanding in acquiring new information or knowledge (Andariana, Zubaidah, Mahanal, Suarsini, 2020).

The Picture and Picture learning model with Examples Non-Examples has been previously researched by several researchers. Firstly, a study conducted by Merry Indrayati from Sriwijaya University titled "The Effect of Using the Picture and Picture Learning Model on Student Achievement in History Subject in Grade VIII of SMP Negeri 1 Palembang." The hypothesis proposed in this study was accepted, indicating an effect of using the Picture and Picture learning model on student achievement in history subject in Grade VIII of SMP Negeri 1 Palembang.

Secondly, a study conducted by Adept Mudyah from Sriwijaya University titled "The Effect of Using the Example Non-Example Learning Model on Students' Historical Thinking Skills in History Subject in SMA Negeri 2 Palembang." The results of this study also supported the hypothesis, indicating an effect of using the Example Non-Example learning model on students' historical thinking skills in history subject in SMA Negeri 2 Palembang.

Thirdly, a study conducted by Afrandi from Sriwijaya University titled "Comparison of Implementing Cooperative Learning Models Type Example Non-Example and Picture and Picture in Civic Education Subject on Students' Learning Motivation in Grade VIII at SMP Negeri 53 Palembang." The average values obtained from the study in both classes were different. The Example Non-Example class had an average value of 64.39, while the Picture and Picture class had an average value of 60.93.

Based on the descriptions of the three aforementioned previous studies or relevant studies, previous research has focused on learning achievement, critical thinking, and learning motivation. The difference between previous research and the current research the researcher is conducting now lies in the selection of comparing the Picture and Picture learning model with Examples Non-Examples on students' learning outcomes at SMPN 2 Tandukkalua, Mamasa District. In this study, the researcher is more interested in investigating students' learning outcomes.

METHODS

A. Type of Research

This research is quantitative using a comparative method. The comparative method is used to determine the differences between the variables under study. In this research, the comparative method is used to determine the differences in learning outcomes of students at SMPN 2 Tandukkalua, Mamasa District using the picture and picture model and the examples non-examples model.

B. Location and Time of Research

The research took place at SMPN 2 Tandukkalua, specifically in Sindagamanik Village, Tandukkalua Subdistrict, Mamasa District, West Sulawesi Province. The research was conducted during the second semester of the 2022/2023 academic year.

C. Variables and Research Design

1. Variables

The research variable is an object or activity that has certain variations determined by the researcher for study and subsequent conclusions (Sugiyono, 2017). Based on the relationship between one variable and another, the variables in this research are as follows:

a. The independent variable in this research is the picture and picture model with examples non-examples.
b. The dependent variable in this research is the learning outcomes of students.

2. Research Design

The research design used is a pretest-posttest control group design, which involves two groups taken as samples. The initial aim of this research is to only observe the differences between the two models being applied. Class VIII A will use the picture and picture model, and class VIII B will use the examples non-examples model. The research design is as follows:

Table 1. Research Design

Class	Pre-test	Treatment	Post-test
VIII A	O_1	X_1	O_2
VIII B	O_3	X_2	O_4

Explanation:
O1 = Class VIII A given a pretest to determine learning outcomes
O3 = Class VIII B to be given a pretest to determine learning outcomes
X1 = Treatment taught with the picture and picture model
X2 = Treatment taught with the examples non-examples model
O2 = Post-test results for Class VIII A using the picture and picture model
O4 = Post-test results for Class VIII B using the examples non-examples model.

D. Population and Sample

1. Population

Population refers to the entire object of study. The population in this research is the students of SMPN 2 Tandukkalua, Mamasa District, totaling 41 individuals.

2. Sample

Sample is a portion of the total or target number of the population. The sampling technique used is purposive sampling, which is a sampling technique based on specific considerations. The samples to be used are Class VIII A and Class VIII B. Class VIII A consists of 22 students, including 12 males and 10 females, while Class VIII B consists of 19 students, including 10 males and 9 females

E. Data Collection Technique

This technique involves assessing students by presenting questions to them, aiming to determine students' learning outcomes before and after being treated using the picture and

picture learning model with examples non-examples. The assessment tool includes 10 multiple-choice questions and 5 essay questions.

F. Data Analysis Technique

1. Normality Test

The normality test is used to determine the distribution shape of data (samples), whether the data obtained in the research is normal or not. The calculations in this research use Liliefors with the assistance of Microsoft Excel to determine whether the examined sample is normal or not.

2. Homogeneity Test

The homogeneity test is used to determine between two states or populations. Homogeneity is assessed by examining the homogeneity of populations. Homogeneity testing is done with the assistance of Microsoft Excel using the Fisher's test (F).

Testing Criteria:

If F calculated < F table, then Ho is accepted, meaning the variance of both populations is homogenous.

If F calculated > F table, then Ho is rejected, meaning the variance of both populations is not homogenous.

3. Hypothesis Testing

This hypothesis test is conducted using Microsoft Excel with the independent sample t-test statistic with a significance level of 0.05 (5%). Ho is rejected if $t > t(1-\alpha)$ and Ho is accepted if $t \leq t(1-\alpha)$ where $\alpha = 5\%$. If $t > t(1-\alpha)$, it means the improvement in learning outcomes reaches 0.30.

RESULTS AND DISCUSSION

A. Results

This research was conducted at SMP Negeri 2 Tandukkalua, Mamasa District, West Sulawesi Province. In this study, the samples used were Class VIII A and Class VIII B, where Class VIII A was treated using the picture and picture model, while Class VIII B was treated using the examples non-examples model.

Table 2. Pretest and Posttest Results of the Picture and Picture Learning Model

Data	**pretest**	***posttest***
Sampel	22	22
Mean	61,3	65,4
Minimum Score	30	45
Maximun Score	70	100
Standard deviation	10,1	10,2

Based on Table 2 above, the statistical data of pretest scores of students' learning outcomes obtained the lowest score of 30, the highest score of 70, with an average score of 61.3 and a standard deviation of 10.1. Furthermore, the statistical data of posttest scores of students' learning outcomes after the implementation of the picture and picture learning model obtained the lowest score of 45, the highest score of 100, with an average score of 65.4 and a standard deviation of 10.2. From the average pretest and posttest results obtained above, it is known that there is an improvement in the use of the picture and picture learning model both before and after the treatment, as seen from the difference in the increase in pretest to posttest scores of 4.3 points.

Table 3. Pretest and Posttest Results of the Examples Non-Examples Model

Data	**Pretest**	**Posttest**
Sampel	19	19
Mean	61,3	63,4
Minimum Score	25	50
Maximun Score	65	80
Standard deviation	9,4	10,7

B. Discussion

Based on the research conducted at SMP Negeri 2 Tandukalua, Mamasa District, the learning outcomes of Class VIII A using the picture and picture learning model obtained a score of (88%) with an average score of 81. Meanwhile, the learning outcomes of Class VIII B using the examples non-examples learning model obtained a score of (70%) with an average score of 69.

The research conducted proves that the implementation of the picture and picture and examples non-examples learning models influences students' learning outcomes. The use of each learning model overall affects the success of students' learning. However, each learning model has its own learning outcomes. This is because students' abilities to receive or respond to lessons vary, and under less-than-ideal physiological conditions, this can affect students, making them unable to be driven to think critically by solving problems found in the presented picture examples.

As stated by Rusman (2012), factors affecting physiological conditions, such as being in good health, not being tired or fatigued, not having physical disabilities, and so on, can influence students in receiving lesson material.

The use of the picture and picture learning model is a learning process that utilizes images arranged in a logical sequence, making it easier for students to conclude the material being studied because using visual aids facilitates students' understanding of lesson material (Huda, 2013).

On the other hand, the use of the examples non-examples learning model involves a learning process that can use videos of past cases or relevant images to achieve basic competencies in learning through indicators that will be explored so that students become more critical and meaningful in learning through visual analysis of the indicators contained in the basic competencies to be achieved (Putra, 2016).

The difference between the picture and picture learning model and the examples non-examples learning model is that picture and picture emphasizes the process and way of thinking in arranging images, while examples non-examples emphasizes the analysis and description of images. This affects students' learning outcomes because students are more interested in arranging images than describing them.

Based on the research conducted in both classes, a comparison of the two learning models was found: the picture and picture learning model is better than using the examples non-examples learning model at SMP Negeri 2 Tandukalua. This is consistent with the research conducted by Setyaningrum (2013), which shows that student learning outcomes in picture and picture learning are higher than in examples non-examples learning.

The research conducted by Sarwati (2018) shows differences in science learning outcomes between the application of picture and picture image-based strategies and examples non-examples strategies in students. Picture and picture image-based strategies have a greater influence on student learning outcomes compared to examples non-examples strategies. The pretest and posttest results can be used to determine changes in student learning outcomes after using the picture and picture learning model and the examples non-examples learning model.

CONCLUSION

Based on the results of the research and discussion, it can be concluded that:

1. The learning outcomes of students using the picture and picture learning model in Class VIIIA at SMPN 2 Tandukkalua obtained 88% with an average score of 81.
2. The learning outcomes of students using the examples non-examples learning model in Class VIIIB at SMPN 2 Tandukkalua obtained 70% with an average score of 69.

3. There is a difference in the learning outcomes of students taught using the picture and picture learning model compared to the examples non-examples learning model. The learning outcomes of students taught with the picture and picture learning model are better than the learning outcomes of students taught with the examples non-examples learning model.

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