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## THE EFFECTIVENESS OF PICTURE SERIES AND GRAPHIC ORGANIZER ON STUDENTS WITH HIGH AND LOW MOTIVATION IN COMPREHENDING NARRATIVE TEXTS

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### Abstract

This study investigates whether picture series can be used effectively on high and low motivated students in comprehending narrative texts, how students who were trained by picture series differ significantly from those who were trained by GO, and whether there is an interaction among strategy, motivation, and reading achievement. The subjects of the study were the tenth grader of *SMA Negeri 1 Salem* in the Academic Year 2014/2015. Two of four classes were selected as the sample of the research. The experiment was set up according to a pre-test and post-test for both groups. The writer used an experimental research with factorial design 2 x 2 by technique of multifactor analysis of variance (ANOVA). The findings of this study indicate picture series is more effective than the GO. It can be seen from the results of the scores of the post test in experimental group were significantly different comparing to the post test scores in the control one. In addition, They regarded it very helpful for them of developing their reading skill. A good commitment and careful implementation that fulfill the requirements suggested in picture series influence on the success of the teaching reading comprehension of narrative texts.

**Keywords:** Picture Series, Graphic Organizer, motivation, narrative, experiment.

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### INTRODUCTION

During the writer's observation in one school, she found that learning was regarded as a serious and difficult process. Teaching steps seem inflexible. The teacher plays a dominant role during the class. Those things would absolutely affect the students in understanding and mastering the material of the lesson.

As students progress through school, they are asked to speak, read, listen and write increasingly complex informational texts in

their courses. The ability to comprehend texts and use the information in these texts is a key to student's success in learning. Successful students have a repertoire of strategies to draw upon, and know how to use them in different contexts. Struggling students need explicit teaching of these strategies to become better learners.

Most of the students admitted that they often felt bored when they had to read a text, especially a long and uninteresting topic text.

In the class, some students were sometimes seemed to lean over their head on the table and talk each other. They just paid attention to the teacher when they did exercises but if the time given to do it was too long, they began to be noisy again.

Grabe and Stoller (2002: 9) defined that reading is the ability to draw meaning from the printed page and interpret this information appropriately. The writer think that, it is a simple definition of reading; it doesn't cover the component in reading, reading is an activity that involve many things such as skills and strategies. Both of skills and strategies are needed to get the purpose of reading. For example, when we pick up a newspaper, we usually read the front page with some combination of search processing, general reading comprehension and skimming.

Among the different strategies that teachers could apply in their classroom context are strategies which lead to the student-centered and require the students to be active in the teaching-learning process. Graphic organizer might become one solution to solve the problem as it provides plenty space for students to take a role during the learning instruction as opposed to the conventional teaching strategy.

In line with the background of this study, the writer is interested to know how well students at grade tenth able to comprehend narrative texts. The writer limits the study by focusing on the application of picture series and graphic organizer. In short, considering the possibility of the effectiveness of the strategy, the researcher conducted an experimental research using picture series in reading to know whether it can solve the problems of the ten grader students of *SMA Negeri 1 Salem* in comprehending narrative texts.

In accordance with background of the research, the problem of the research is formulated as follows.

- 1) How significant is the effectiveness of picture series on high motivated students in comprehending narrative texts?
- 2) How significant is the effectiveness of picture series on low motivated students in comprehending narrative texts?
- 3) How significant is the effectiveness of graphic organizer on high motivated students in comprehending narrative texts?
- 4) How significant is the effectiveness of graphic organizer on low motivated students in comprehending narrative texts?
- 5) How significant is the difference between high and low motivated students who were trained by picture series and graphic organizer in comprehending narrative texts?
- 6) How significant is the interaction among reading achievement, strategy, and motivation in comprehending narrative texts?

In this study, this experimental research is aimed at comparing whether picture series is more effective than graphic organizer on narrative reading achievement or not, and observing whether there is an interaction between teaching strategy and reading skill viewed from students' motivation. The technique used in this experimental research is by comparing the experimental group using picture series to control group using graphic organizer as a teaching strategy in reading. Each group is divided into two different motivations (high and low). This research involves three kinds of variables namely independent variables (teaching strategy), dependent variable (reading skill), and

moderator variable (students' motivation). The research design used for the research is factorial design 2 x 2 by technique of multifactor analysis of variance (ANOVA).

**Subjects of the study**

The population of this research takes from State Senior High School 1 Salem especially the tenth graders. It is one of the state school in *Brebes*. It is located on Salem street *Brebes*. There are sixteen classes from the

tenth, eleventh and twelfth graders. the total of population were 158 students.

The sample of this research was taken from the tenth graders of State Senior High School One Salem. The reason for choosing tenth graders, because of the possibility and practicality of sample which the researcher as the teacher at the tenth graders.

**Research Instrument**

There were two instruments used in this research: test, and observation sheet.

Table: 1 Research Instruments and Variables to Measure

No	Instruments	Variables to Measure	Function
1	Questionnaire	Students' motivation	To divide samples
2	Test	Students' reading skills before and after treatment.	To measure the students achievement.

**Technique of Collecting the Data**

The technique of collecting data in this research used test. Test was used to collect data of students' reading skills. The writer evaluated the reading test through multiple choices questions.

**Technique of Analyzing the Data**

The techniques to analyze the data of this study are descriptive and inferential analysis. The detail formulation of descriptive analysis (mean, mode, median and standard deviation) will be elaborated below.



- a. Mean of the data

$$\bar{X} = \frac{\sum f_i X_i}{n}$$

- b. Mode of the data

$$Mo = L + i \left( \frac{f_1}{f_1 + f_2} \right)$$

- c. Median of the data

$$Me = L + i \left( \frac{\frac{n}{2} - cf_b}{fw} \right)$$

- d. Standard Deviation of the data

$$s = \sqrt{\frac{\sum f_i X_i^2 - \frac{(f_i X_i)^2}{n}}{n - 1}}$$

Inferential analysis used in this research related to the design of the research is multifactor analysis of variance (ANOVA). ANOVA test was used to find out whether the difference between them is significant or not.

Normality and homogeneity test must be conducted previously before the ANOVA test. Normality test is conducted in order to know whether the sample distributes normally or not, while homogeneity test is aimed at knowing whether the data are homogeneous or not. Liliefors test is used to examine the normality test. Meanwhile, Barlet test is used to examine the homogeneity test.

## FINDINGS AND DISCUSSION

### Testing the Instrument

To test the instrument there are five steps that have been done by the researcher. They are the validity of the instrument, the reliability of the instrument, the practicality of the instrument, the difficulty level and the discrimination level. Here are the explanations.

### The Validity of the Instrument

The first step to test the instrument was by conducting validity of the test items. The research instrument was tried out to other group from the same level. The try out result was scored to test the validity of the instrument using SPSS for windows version 21.0

The calculation shows that the *p* value of the instrument item validity ranged from .000 to .844. The test item is considered to be valid if the *p* value is less than .05 and the test item is considered to be invalid if the *p* value is more than .05. Based on that calculation, there were five test items which were considered to be invalid and needed to be removed: questions no. 13 (*p*=.318), 17(*p*=.318) 32 (*p*=.166), 33 (*p*=.282), 39 (*p*=.109)

After removing the invalid test items, the writer recalculated the data using SPSS for windows version 21.0. From the second calculation, the *p* value of item validity ranged from .000 to .048. Since the *p* value of item validity was less than .05, these test items were considered to be valid and it can be used as the test.

### The Reliability of the Instrument

After calculating the validity of the instrument, the reliability of the instrument was calculated. As attempt to test the reliability of the instrument, the split half formula available in SPSS for windows version 21.0 was used.

Based on the calculation using split half formula, the result of the reliability test of the instrument is .861. According to Arikunto (2003: 50), if the result of reliability is higher than .70 the instrument is reliable to be applied in scientific research.

### **The Practicality of the Instrument**

The instrument of the study is not only supposed to be valid and reliable but it also needs to be practical. Hatch and Farhady (1981: 254) mentioned that some practical considerations as follows: the test needs to be easily administered, it needs to be as inexpensive as possible, it needs to be easily scored, and the score needs to be easily interpreted. Considering requirements of the instrument practicality proposed by Hatch and Farhady (1981) above, it is assumed that the instrument of this study is practical.

### **The Difficulty Level**

Arikunto (2003: 70) explained that the difficulty level of the test was calculated after calculating the validity, reliability, and practicality of the research instrument. It is considered to be important since it is useful to know whether the test is suitable for the students.

The difficulty level was calculated using SPSS for windows version 21.0 in reliability command. Arikunto (2003) mentions the criteria which are used to determine the difficulty level of the test below.

- a. 0.00 – 0.30 (easy)
- b. 0.30 – 0.70 (moderate)

- c. 0.70 – 1.00 (difficult)

Based on the calculation, the difficulty level of the test varies from 0.60 to 0.87 which indicates that the difficulty level of the test is at moderate level. In the other words, the test is able to be used for the students.

### **The Discrimination Level**

The discrimination level of the test was calculated after calculating the difficulty level of the test. As well as the difficulty level, the discrimination level was also calculated using SPSS for windows version 21.0 in reliability command. Arikunto (2003: 70) states that level of discrimination is part of the reliability command in SPSS which is called corrected item total correlation. It is because the total of the batteries is not the sum of the item scores but the sum of item scores without including item in questions.

According to Arikunto (2003), if the discrimination level (D) = 0.00-0.20 (poor level), D = 0.20 – 0.40 (satisfactory level), D = 0.40 – 0.70 (good level), D = 0.70 – 1.00 (excellent level). Based on the calculation, it is found that the discrimination level of the test ranges from 0.063 to 0.830 which indicates that the test was in good level and excellent level.

### **Data Analysis**

After the reseracher classified them by using motivation test, the next step was doing pre test and gives the treatments for each group, after that the researcher held the post test. Below it can be seen the results of pre test and post test which had been done by the resercher.

Besides showing the result of pre test both of group, it also shows the result of post test for picture series and GO group. They have been done for both motivations, which were high and low motivated students. The

strategies which were used were picture series and GO strategy.

The results of pre test in class which is taught by picture series and GO strategy. The next step is giving treatments picture series group that is by applying the strategy of picture series to teach narrative text. And the researcher gave GO for the second group, therefore the thesis only focus on the use of picture series as a strategy of learning narrative text. The researcher eagers to know whether the use of picture series is an effective strategy to make them comprehend well in learning narrative texts. There are also the results of Post test after the reseacher had given the some treatments for both of group. Based on the table, it shows a significant result that can be found from post test. On the other hand, the result of post test is increasing after giving some valuable treatments such as applying the different strategies for both the group. It can be concluded that the two strategies have given contributions and input to high and low motivated students

### **Test of Normality and Homogeneity**

The normality of distribution was calculated to know whether the sample belongs to the normal distributed population. The criterion to determine normality distribution is as follows: if the level of significance is higher than 0.05 indicates that the sample belongs to the normal distributed population and the contrary if the level of significance is smaller than 0.05 indicates that the sample does not belong to the normal distributed population).

Hypothesis of data normalization

Ho: Normalization of data distribution

Ha: Data which is not normal distribution

Based on the calculation of SPSS, it is known that the value Asym.sig. (2-tailed) all the data more than 0.05 ( 0.509, 0.705, 0.651 and 0.992 > 0.05). It can be concluded that

the distribution of the data is normal.

Based on the SPSS output, it is obtained that the value of Levene Statistic 0,651 and sig.0.589, the value sig.a > 0.589 ( 0.589 > 0.05). So, it can be concluded that the data distribution is homogen.

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### **Research Findings**

In the previous chapter, the researcher has stated the hypothesis of this research. There are six statistical hypothesis determined. In this part, the researcher would like to show the answers for the hypothesis, it is based on the statistical calculation by using SPSS version 21.0.

### **Comparative Analysis of Pretest and Posttest Scores of the Experimental Group 1 with High Motivation**

The hypothesis no 1 states the significance of story map in teaching reading narrative texts to high motivated students. The following is the explanation by using anova table. The table consists of paired samples statistics, paired samples correlation and paired samples test. Here are the tables:

Hypothesis:

Ho= there is no significant between students pretest and posttest score with high motivated students who taught by picture series.

Ha= there is significant between students pretest and posttest score with high

motivated students who taught by picture series.

Based on SPSS output, it is obtained  $\text{Sig}, 0.000 < 0.05$ , it can be concluded that  $H_0$  is rejected and  $H_a$  is accepted. It means that there is a significant between students pretest and posttest with high motivated by using picture series, the range of pretest to posttest score is 14.375 point.

### **Comparative Analysis of Pretest and Posttest Scores of the Experimental Group 1 with Low Motivation**

The hypothesis no 2 states the significant of picture series in teaching reading of narrative texts to low motivated students. The following is the explanation by using anova table. The tables consists of paired samples statistics, paired samples correlations and paired samples test. Here are the tables:

Hypothesis:

$H_0$ = there is no significant between students pretest and posttest score low motivated students who taught by picture series.

$H_a$ = there is significant between students pretest and posttest score low motivated students who taught by picture series.

Based on SPSS output, it is obtained  $\text{Sig}, 0.000 < 0.05$ , it can be concluded that  $H_0$  is rejected and  $H_a$  is accepted. It means that there is a significant between students' pretest and posttest of low motivated students, the range of pretest to posttest score is 15.625 point.

### **Comparative Analysis of Pretest and Posttest Scores of the Experimental Group 2 with High Motivation**

The hypothesis no 3 states the significant of GO strategy in teaching reading narrative texts to high motivated students. The following is the explanation by using anova table. The table consists of paired samples

statistics, paired samples correlation and paired samples test.

Hypothesis:

$H_0$ = there is no significant between students pretest and posttest score high motivated students who taught by GO strategy.

$H_a$ = there is significant between students pretest and posttest score high motivated students who taught by GO strategy.

Based on SPSS output, it is obtained  $\text{Sig}, 0.000 < 0.05$ , it can be concluded that  $H_0$  is rejected and  $H_a$  is accepted. It means that, there is a significant between students pretest and posttest high motivated students, the range of pretest to posttest score is 14.375 point.

### **Comparative Analysis of Pre-test and Post-test Scores of the Experimental Group 2 with Low Motivation**

The hypothesis no 4 states the significant of GO strategy in teaching reading narrative texts to low motivated students. The following is the explanation by using anova table. The table consists of paired samples statistics, paired samples correlation and paired samples test.

Hypothesis:

$H_0$ = there is no significant between students pretest and posttest score low motivated students who taught by GO strategy.

$H_a$ = there is significant between students pretest and posttest score of low motivated students who taught by GO strategy.

Based on SPSS output above, it is obtained  $\text{Sig}, 0.000 < 0.05$ , it can be concluded that  $H_0$  is rejected and  $H_a$  is accepted. It means that there is a significant between students pretest and posttest high motivated students, the range of pretest to posttest score is 11,250 point.

### **Comparative Analysis of Scores of Both Groups**

The hypothesis no 5 states about the significant of story map compared to the KWL strategy among high and low motivated students. In this part, the writer would like to describe the significant both of strategy in teaching reading skills of narrative texts.

The result shows that the comparison between picture series and GO. The numbers of samples are 16 for each group. And then, based on statistical calculation by using SPSS 21.0, it is obtained, the value of mean for picture series group is 75.94 and stad. Deviation is 10.835. while, the value of mean for GO group is 75.00 and stad. Deviation is 12.247.

Hypothesis:

Ho = there is no significant students score between picture series and GO strategy.

Ha = there is significant students score between picture series and GOstrategy.

Based on SPSS output, it is obtained Sig,0.421 > 0.05, it can be concluded that Ho is accepted and Ha is rejected. The result of hypothesis shows that there is no significant effect of students score between students who were taught by using picture series and those who were taught by using GO. The calculation shows that the strategy was not quite significant due to the students achievement in reading, but motivation has a significant due to students achievement in reading. It can be shown based on the comparison of strategy and motivation. The expalanation can be seen in the appendices of this research.

### **The Interaction among Variables**

The hypothesis no 6 states about the

interaction among the variables of this research namely, reading skills, strategy and motivation. In this part, the writer would like to describe the result of statistical analysis through SPSS 21.0. The explanation by using anova table (see appendices no 6).

The result shows that the variables of this research, namely strategy and motivation. The strategy were applied consist of picture series to experiment class and GO to control class. And then, motivation is the moderate variable, there are two type of motivation namely high and low motivated students. The numbers of samples were 8 students for each group. Therefore, the total of samples were 32 students.

#### **Hypothesis 1:**

Ho = there is no significant between the score of students who taught by using picture series and GO strategy.

Ha = there is a significant between the score of students who taught by using picture series and GO strategy.

Based on the output above, it is obtained the value  $F = 0,137$  and the value of sig is 0.714. The calculation show that the value of Sig. 0.714, thus Ho is accepted and Ha is rejected. It means there is no significant of students achievement in reading who taught by using picture series compared to GO strategy.

#### **Hypothesis 2:**

Ho = there is no significant between the score of high and low motivated students.

Ha = there is a significant between the score of high and low motivated students.

Based on the output above, it is obtained the value  $F = 45,549$  and the value of sig is 0.000. The calculation show that the value of Sig.  $0.000 < 0.05$ , thus Ho is rejected and Ha is accepted. It means there is a significant of

students achievement in reading between high and low motivated students.

Based on statistical test, it is obtained the value  $\text{Sig}.0.395 > 0.05$ . Thus, the writer can concludes that there is no interaction between strategy and motivation, the statistical has proved it. As a matter of fact, it shows that, there is another factor which is influenced students achievement, for instance students interest in learning of certain subject matter.

The result of the calculation: the value of R square = 0,643. It shows that there is a strong interaction among variables. Because of the value of R square 0, 643, the range is in 0, 600 – 0,800. It means that, there is a significant interaction among strategy, students motivation towards students reading skills.

### **Discussions**

The research problem as mentioned in chapter one is in relation to the implementation of picture series and graphic organizer on high and low motivated students in comprehending narrative texts. Based on the data obtained from the result of comparative analysis of the posttest score of the experiment class and control class, it is seen that on the level of significance of 0.05 and degree of freedom of 28, it is found that  $\text{sig}. 0.004 < 0.05$ . The progress of the score is quite significant as it is also supported by the improvement of the mean obtained by the experimental group from pretest and posttest scores.

It shows that there is significant difference between the students' starting skill and the students' achievement after getting the treatment. Based on activities using picture series in reading, the students become accustomed to read the text actively and in fun way.

In addition, it showed that by implementing the picture series for reading,

students could solve the problem in comprehending narrative texts. This finding was also found by Aryani (2010) and Ali (2008).

### **CONCLUSIONS**

The first result based on the data analysis that picture series is effective on high motivated students in comprehending narrative texts. It was shown from the result of ANOVA test that  $H_0$  is rejected and  $H_a$  is accepted. It means that there is a significant difference between pre-test and post test score or there is positive effect of picture series is effective on high motivated students in comprehending narrative texts.

The second conclusion of low motivated students taught by picture series shows that  $H_0$  is rejected and  $h_a$  is accepted. It means that there is a significant difference between pre-test and post-test or there is positive effect of picture series on low motivated students in comprehending narrative texts.

The third conclusion shows that the statistical calculation of the students who have high motivation taught by graphic organizer shows a significant difference.  $H_0$  is rejected and  $h_a$  is accepted. It means that there is a significant difference between pre-test and post-test or there is positive effect of sentence graphic organizer on high motivated students in comprehending narrative texts.

The forth conclusion from the data analysis from ANOVA shows that  $H_0$  accepted and  $H_a$  is rejected, it means that there is no significant difference between pre-test and post-test or there is no effect of graphic organizer on low motivated students incomprehending narrative texts.

The fifth, there is significant difference between the score of experimental group and control group. It shows that picture series is more effective than graphic organizer on the

high and low motivated students in comprehending narrative texts.

The last, there is an interaction between teaching strategy and students' motivation in comprehending narrative texts. The interaction happened because both strategies gave affection on students reading skill. Despite, the use of picture series shows more effect than graphic organizer. Students taught by using picture series have better reading comprehension than those who taught by using graphic organizer for the tenth graders of SMA Negeri 1 Salem in the academic year of 2014/2015.

### **Recommendations**

Based on the findings of the implementation of graphic organizer, there are

some recommendations proposed both for further research and for practical purposes. The recommendations are intended to enhance and find the best way in teaching reading for senior high school students. Besides, they are also proposed to offer an alternative solution for helping students and institution due to the achievement of the goal of teaching English as demanded by the national curriculum of education.

Third, as this study focuses only on reading narrative texts, it is suggested for the further research to involve wider types, such as report text, analytic expository, descriptive, spoof and recount text to help the students in accessing knowledge in the global era.

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