

THE INFLUENCE OF JIGSAW LEARNING MODEL ON THE ABILITY TO WRITE A DESCRIPTION OF STUDENTS OF GRADE X SMAN 1 BANYUMAS PRINGSEWU

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Abstract

In writing language activities that students often do is composing, because composing teaches the ability to make good and correct sentences according to knowledge and can assemble them into paragraphs. Writing skills are language skills that need to be possessed by students because with writing skills students can communicate ideas or ideas in writing one of them through the activity of writing a descriptive essay. The description is a technique of writing using detail to make the reader seem to be on the scene, feel, experience, see and hear about an event or scene. The results of the research studies that have been conducted show that there is an influence on the use of the Jigsaw method on the ability to write descriptions in grade X students of Semester II SMA Negeri 1 Banyumas Pringsewu Regency.

Keywords: Learning Model, JIGSAW, Ability, Students

INTRODUCTION

Writing as a form of communication has the benefit of improving intelligence, developing initiative power, and creativity, fostering courage, encouraging willpower, and the ability in gathering information (Suparno 2002: 4). In writing language activities, the author must compose a sentence in an essay that contains a mind supported by frequent sentences to form an idea. Writing skills are closely related to one's competence in the language, so it will appear that one's ability to develop his imagination and creativity in the form of writing. In the Education Unit Level Curriculum (KTSP) of Banyumas State High School (SMA) 1 there is a Competency Standard revealing information in various forms of paragraphs (narrative, description, and exposition). With the basic complement of writing observation results in the form of paragraph descriptions, and indicators students can record topics that can be developed into paragraph descriptions, compile the

framework of paragraph descriptions, develop a framework of description essays, Students' ability is still relatively low.

Based on the pre-research that the author conducted at SMA N 1 Banyumas, it is claimed that Indonesian subjects are taught one week and two hours of lessons, and teachers who teach Indonesian are teachers who graduate from S1 Bahasa and Sastra Indonesia. This condition should improve students' gain and learning outcomes. However, in writing a description of the ability of students is still low or has not reached the Minimum Completion Criteria (KKM) which is expected to be 65. The lack of minimum completion criteria (KKM) can occur because the learning process is less pleasant for students because of the use of improper learning methods or techniques, so students feel bored with learning that is always monotonous, not varied, more using methods or techniques lectures so that students are less interested in being active.

The learning process in the Education Unit Level Curriculum (KTSP) requires active participation from all students. So, the learning activities are centered on students, teachers as motivators, and facilitators in it to make the classroom atmosphere more lively. As an alternative to solving the problem, the author tries to use a jigsaw-type cooperative approach to write a description, because in the Jigsaw type cooperative approach the teacher pays attention to the schematic or background of the student's experience and helps students activate this schematic to make the lesson materials more meaningful. Besides, students work with fellow students in a mutually beneficial atmosphere and have many opportunities to process information and improve communication skills. The research that the authors conducted at SMAN 1 Banyumas Subdistrict Banyumas Pringsewu in class X were conducted by collaborating with the subject teachers in the school where the research was conducted. The author is only an independent observer in charge of recording, analyzing the learning process, and concluding the results of the study based on the data obtained.

RESEARCH METHODS

A. Variable Operational Definitions

The operational definition of a variable reveals the observed characteristics or characters of a measured variable. So the variable of research is everything in the form of anything set by researchers to be studied so that information about it is obtained, then in conclusion (Setiawan, Sugiana, dan M 2013). According to Hatch and Farhadi (in Sugiyono, 2006: 60) Theoretically, variables can be defined as attributes of a person or objects that have variations between one person and another or one object with another object. From the above two understandings can be concluded that the research variable is an attribute, trait, or value of a person, object, or activity taken from a different value situation and has a certain variation that researchers set to be studied and concluded.

In this study, there are two variables, namely free variables and bound variables. A free variable is a variable or symptom that affects another variable. The free variable in this study was the use of a jigsaw learning model, which is hereinafter called variable (X). While bound variables are variables that are affected or that are due to the existence of free variables. Variables bound in this study are the ability to write descriptions that are hereinafter called variables (Y), With indicators

as Students can record topics that can be developed into paragraph descriptions, compile a description paragraph framework, develop a framework of descriptive essays. Based on the steps of the jigsaw learning model, students are expected to be able to write a good description based on the indicators that have been set.

B. Research and Development Instrument

The research uses experimental methods that can be interpreted as research methods used to find the influence of certain treatments on others in controlled conditions (Uyanto 2006). The experimental design used is True experimental Design (a real experiment) in the form of posttest Control Group Design because in this form researchers can control all variables that affect the course of research. In this study, two groups were selected, which the authors had previously analyzed student results data in writing descriptions, to determine the initial state of students and ensure that there were no significant differences in student outcomes to be sampled by both the control group and the experimental group.

Before the study was conducted the author conducted a test of the validity of the instrument to be used. The instrument is said to be valid if it can be used to measure what should be measured (Sugiyono: 2006). To know the validity of the instrument the author uses the validity of the content with a specific test in the form of an essay. The contents of the test are matched using a grid so that the test can be said to be valid or not. The paradigm used in this study can be described as follows:

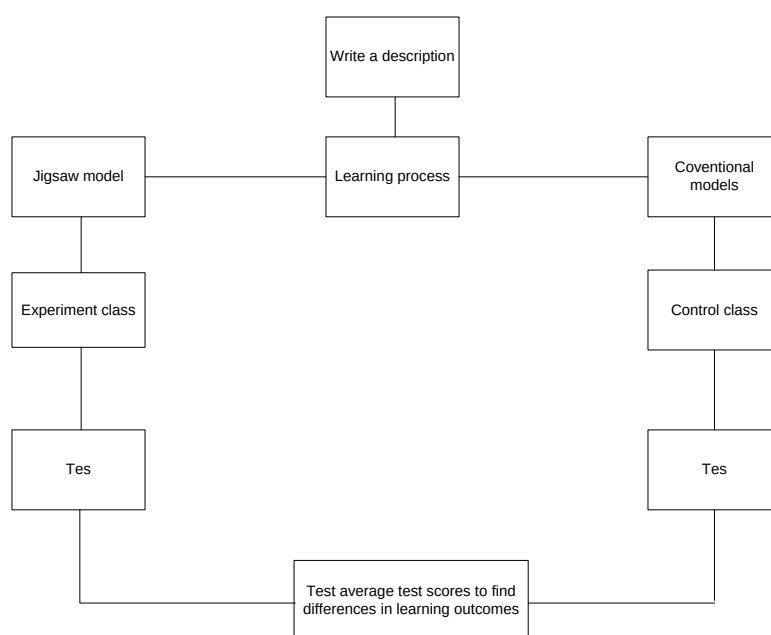


Figure 1. Paradigm

From the above paradigm, the author conducted several descriptive writing tests on students to find average grades and then analyzed the average students' grades to determine the effect of using jigsaw learning models on description skills. To find out the difference in results in writing a description between the experimental class and the control class conducted an ability test by instructing students to write a description.

A. Population, Sample, and Sampling Techniques

a. Population

As the population in this study is all students of grade X Semester II SMA Negeri 1 Banyumas. For more details can be seen in the following table:

Table 1. List of sample numbers of grade X students in semester II of SMA Negeri 1 Banyumas

NO	Class	Amount
1	X 1	28 Student
2	X 2	28 Student
3	X 3	24 Student
4	X 4	27 Student
Amuont of Popullation		107 Student

a. Sample

A sample is the number of populations that will be taken in part to be used as objects in the study. The author refers to the opinion of (Hidayah 2018; Irviani dan Oktaviana 2017; Novitasari 2018) Suharsimi Arikunto (1986:107). That is the number of subjects is less than 100, it is better to take everything so that the research is a population study. Furthermore, if the number of subjects is more than 100 can be taken 10% - 15% or 20% - 25%. In this study, the authors took a sample of $\pm 25\%$ or as many as ± 56 students.

B. Sampling techniques

The sampling technique is a sampling technique to determine the sample to be used in research (Hidayah 2018) (Sugiyono, 2006). Because the population members in this study were considered homogeneous, the authors used sampling techniques in the form of cluster sample techniques by sampling two classes that have the same ability to be used as experimental classes and control classes.

B. Data analysis techniques

1. Before knowing whether or not the influence of the jigsaw learning model on the ability to write descriptions, the author analyzes the research paradigm by testing the initial results of students in writing descriptions before using the jigsaw learning model between the experimental class and the control class. To ensure there are no significant differences in the experimental class or control class by using the t-test using the separated variant formula:

$$t = \frac{\overline{X_1} - \overline{X_2}}{\sqrt{\frac{S_1^2}{n_1} + \frac{S_2^2}{n_2}}} \quad \begin{array}{l} t = \text{calculated value} \\ \overline{X_1} = \text{average sample value of 1 (experiment} \\ \text{class)} \end{array}$$

$$\begin{aligned} \bar{X}_2 &= \text{average sample value of 2 (control class)} \\ (Sugiyono, 2006 : 273) \quad S_1^2 &= \text{sample variant value 1} \\ S_2^2 &= \text{sample variant value 2} \\ n_1 &= \text{number of individual samples 1} \\ n_2 &= \text{number of individual samples 2} \end{aligned}$$

As for finding the value of distribution variants in the sample used formula:

$$S_1^2 = \frac{\sum X_1^2}{N_1} - (\bar{X}_1)^2 \quad S_2^2 = \frac{\sum X_2^2}{N_2} - (\bar{X}_2)^2$$

To be able to use the above formula, the working step that needs to be done is to create a t-test technique work table which is a helper table. Then the data obtained from the tabulation results are used to find the distribution variant value of each sample, after the distribution variant value is obtained the next step is to find the calculated t value. The calculated t value obtained is then compared to the price of the t table with a degree of freedom dk = n- 2 to know there is or is not a significant difference before learning to write a description using a jigsaw learning model.

1. To find out the effect of the use of the Jigsaw defense model on the ability to write a description, the test results that have been obtained from experimental class research and control class-tested differences by using a t-test sample paired with the formula:

$$t = \frac{\bar{X}_1 - \bar{X}_2}{\sqrt{\left[\frac{SD_1^2}{N_1 - 1} \right] + \left[\frac{SD_2^2}{N_2 - 1} \right]}}$$

$$\begin{aligned} \bar{X}_1 &= \text{Mean on sample distribution 1} \\ \bar{X}_2 &= \text{Mean on sample distribution} \\ SD_1^2 &= \text{Sample distribution variant value 1} \\ SD_2^2 &= \text{Sample distribution variant value 2} \\ N_1 &= \text{Number of individuals in sample 1} \\ N_2 &= \text{Number of individuals in sample 2} \end{aligned}$$

As for finding the value of distribution variants in the sample used formula :

$$SD_1^2 = \frac{\sum X_1^2}{N_1} - (\bar{X}_1)^2 \quad SD_2^2 = \frac{\sum X_2^2}{N_2} - (\bar{X}_2)^2$$

To be able to use the above formula, the working step that needs to be done is to create a t-test technique work table which is a helper table. Then the data obtained from the tabulation results is used to look for the distribution variant value of each sample, after the distribution variant value is obtained the next step is to look for the calculated t value. Here is an example of a working table of t-test techniques.

Table 2. t-test engineering work

X_1 (sample value acquisition 1)	X_2 (sample value acquisition 2)	X_1^2	X_2^2
$\sum X_1 =$	$\sum X_2 =$	$\sum X_1^2 =$	$\sum X_2^2 =$
n = number of sample members 1	n = number of sample members 1		

To decide whether the jigsaw learning model gives a negative or positive influence, then the calculated price t needs to be compared to the price of the t table with a degree of freedom $dk = n - 2$. If there is a difference where value t count is greater than t table then learning to write a description with jigsaw learning model has a positive influence, if the t count value is smaller than the table t then the learning to write a description with jigsaw learning model has a negative effect.

RESULTS OF RESEARCH AND DISCUSSION

The steps the authors took to collect data in this study were to compile questions, conduct tests, collect, correct and assess according to the scores obtained by students and process the data acquisition by the criteria set in this study. The author conducts tests on control classes and experimental classes, data analysis is done by analyzing students' scores in writing descriptions before using the jigsaw method, to find out the students' initial results on writing descriptions before being given the learning to write a description with the jigsaw method in the experimental class. Tests were conducted to determine the difference in the results of writing a description between the control class and the experiment class.

The student's answer sheet from the next test result was corrected and scored according to the assessment criteria used in this study. as for the scores obtained by students. Based on the data that has been obtained to find out whether or not there is a difference in the results of students in writing a description is done using a t-test test using a variant separated formula. To be able to use the above formula, it is necessary to work table techniques t-test scores of basic knowledge of students about drama then the data obtained will be tabulated to facilitate the calculation.

From the calculation result obtained t calculated value of 0.119. If compared with the table t value at $dk = n_1 + n_2 - 2 = 56$. Because in the distribution table t there is no value of 56 then the number taken is the closest, this $dk = 60$ is the closest. At $dk = 60$ it can be known that the calculated t value is smaller than the table t, either on a scale of 1 % of 2,660 or 5 % of 2,000 or $0.119 < 2,660$ and $0 < 119 < 2,056$ this indicates no significant difference in the initial results of students in writing description before using the jigsaw method.

From the calculation result obtained t calculated value of 3,197. Furthermore, the calculated t value is compared to the value in the table distribution t at $dk = 56 - 2 = 54$, because in the distribution of the table t count there is no number 54 then the closest table t value, in this case, is $dk = 60$. On a scale of 5% on $dk = 60$, it will be known that the calculated t value of 3,197 is greater than the value in the table t of 2,000 or $2,556 > 2,000$. On a scale of 1% on $dk = 60$ it can also be known that the t-value

count of 3,197 is greater than the table t or $3,197 > 2,660$. This indicates a positive influence on students' results in writing descriptions using the Jigsaw method.

CONCLUSION

Based on the results of the data analysis of the results of the study, obtained a calculated t value of 3,197 greater than the table t value of 2,000 or $3,197 > 2,000$ and $3,197 > 2,660$. Based on the working hypothesis, the assumption hypothesis (H_a) is accepted and the zero (H_0) hypothesis is rejected because the value t count is greater than the table t value. This shows that there is an influence on the use of the Jigsaw method on the ability to write descriptions in grade X students of Semester II of SMA Negeri 1 Banyumas Pringsewu Regency.

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