THE EFFECT OF GROUP INVESTIGATION METHOD ON STUDENTS’ ABILITY IN WRITING PROCEDURE TEXT

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Abstract - This study is an experimental design. It was intended to prove that there is a significance effect of using group investigation method on students’ ability in writing procedure text. The population of this study was the eighth grade student of SMP Negeri 2 Lintongnihuta in Academic year 2019/2020 which consisted of six parallel classes. The total number of population was 240 students. Two classes were selected as the sample by using random sampling technique. The total of the sample was 60 students. The samples were divided into two groups namely experimental and control group. The experimental group was taught by using group investigation method while the control group was taught by conventional teaching. Writing test was conducted as instrument for collecting data. The topic of the test was how to operate a computer. The result of the data analysis showed that t-calculated was 4.874 at the level of significance p = 0.05 while t-table is 2.00 at the level. It was found that t-calculated was higher than t-table (4.874 > 2.00). Thus, the alternative hypothesis (Ha) is accepted and it means that there is a significance effect of using group investigation method on students’ ability in writing procedure text.

Keywords : The effect of group investigation method students’ ability in writing procedure text

I. INTRODUCTION

The Background of the Study
Writing is one of English skills which is important to be mastered especially for academic. If students have mastered this skill, students will be able to do some kinds of writing assignments. It is necessary for students to choose the appropriate idea when they want to express something in writing. So they can decide in what type of writing it is to be written.

According to Indonesian National Curriculum 2013, there are many kinds of the text that should be learned by the students of Junior High School such as, procedure, narrative, report, recount, explanation, and so forth. Procedure text is one of the genres that should be achieved by the students in the eighth grade. Procedure text is a kind of text designed to describe how something is achieved through a sequence of actions or steps.

Writing is letters or symbols written or imprinted on a surface to represent the sound of a language. It is an activity of putting something in written form (wordnet.Princeton.edu/perl/webin). Writing plays an important role in life to express ideas, feeling, desires, and to convey information. Writing is one way of making meaning from experience for ourselves and for others (Jennice, et al:1991:23). For many people, visible language is satisfyingly permanent record of thoughts and feelings. People write their responses to the event in any form they choose. For example: a list of random thoughts, a journal, a book review, a letter, and a diary.
Good writing begins with understanding how to construct and use effective sentences and paragraphs.

Based on the explanation above, it can be concluded that writing is a process of expressing and explaining thoughts and ideas in words. Writing is a mental work of inventing ideas, thinking about how to express ideas and organizing ideas into a good paragraph. Writing convey aims of a writer, it should be organize effectively.

Writers should communicate their idea clearly, precisely, and unambiguously. It is dedicate to the reader. In this study, the writer deals with writing as his topic in Integrated Teaching Practice Program at SMP Negeri 2 Lintongnihuta, the students found it difficult to write especially in writing procedure text. Most of students still get low in marks in writing. The writer found that there are many factors that make students have problem in learning writing skill. The students are lack of ideas, vocabulary, and grammar. Responding to the problems, the writer tried to apply a method that can solve the problem. The method is Group Investigation

II. REVIEW OF RELATED LITERATURE

Theoretical Framework
There are many activities in teaching in learning English in the classroom. To make the students more interested in learning English, the teacher should be able to make an appropriate activity depending on the need on an understanding of the interaction, which the teacher entails.

In teaching writing procedure text, the teacher can use a teaching method in conducting the lesson in the class. Group Investigation Method is one of the teaching method which can be used in teaching procedure writing.

In conducting a research, theories are needed to explain some concepts applied. The explanation is considered important. The concepts which are used must be clarified in order to have the same perspective with the implementation in the field. The following is the clarification of the concept use for the feasibility of the study.

Writing
Writing is one of the basic language skills that are important to be learned in learning language. Hyland (2009:34) states that writing is a social act, and to understand it fully we must go beyond the decisions of individual writers to explore the regular features of texts as the preferences of particular communities. According to Suleiman (2011:25), writing is an integrative skill and a complex process. It is an essential skill in foreign language learning an integrative skill an important, constructive, and a complex process. It is an essential skill in foreign language learning in order to give the learners the opportunity to develop the proficiency they need to write personal letters, essays, research papers and journals.

Writing is concerned with the final product of writing like essay, report, story and what the products which should look like, but now the students as the creator of language are allowed to focus on the content, the message and their own individual intrinsic motives are put at the center of learning that is approach process in writing to help students to built repertories of technique for prewriting, drafting and rewriting (Brown: 2003). In this book, Hyland (2009:34) state that the concept of writing is the interaction between writers and readers as a communicative dimension to writing by explaining composing decision in terms of the writer’s projection of the understandings, interests, and needs of a potential audience.

Based on the explanation above, it can be summarized that writing is a communication tool to express something to the readers in piece of written text about a topic in a context by mastering the aspects of writing. This study refers to write as a process of communication that conveys the ideas and opinion to the readers in the written form that is done by students.
Process of Writing
According to Harmer (2004:4-5), the process of writing has four main elements.

Teaching Writing
Teaching how to write effectively is one of the most important life-long skills educators impart to their students. When teaching writing, educators must be sure to select resources and support materials that not only aid in teaching how to write, but that also be the most effective in helping students learn to write.

Genre of Writing
Genre can be defined as text type which has function as frame of reference in order to make text effectively; effective in terms of accuracy goals, the selection and preparation of text elements, and precision in the use of grammar (Pardiyono.2007:2) He also stated that there are some types of writing such as procedure, descriptive, recount, narrative, analytical exposition, anecdote, news item and discussion. There are so many genres in writing, but this study is concerned to writing procedure text.

Procedure Text
Learning about writing is not only how to put words in written but also how to pack the idea, message, and information correctly in text, in a certain criteria. Procedure text is a text that is designed to describe how something is achieved through a sequence of actions or steps. It explains how people perform different processes in a sequence of steps. This text uses simple present tense, often imperative sentences. It also uses the temporal conjunction such as first, second, then, next, finally, etc.
A procedure is a specified series of actions or operations which have to be executed in the same manner in order to always obtain the same result under the same circumstances (for example, emergency procedures). According to Anderson and Anderson (2003:50) argue that “Procedure text is piece of text that gives us instruction for doing something, the purpose of a procedure text types is to explain how something can be done”. Less precisely speaking, this word can indicate a sequence of tasks, steps, decisions, calculations and processes, that when under taken in the sequence laid down produces the described result, product or outcome. A procedure usually induces a change. It is in the scientific method.

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III. RESEARCH METHODOLOGY

Research design
This study was conducted in experimental design, in order to investigate the effect of group investigation on students’ability in writing procedure text. There are two variables in this study, namely: Group investigation strategy as independent variable and the students’ability in writing procedure text as dependent variable.

This study consists of two group, namely: experimental group and control group. The experimental group is the group that given treatment by using group investigation strategy, while control group is the group without using group investigation strategy.

Population
Population is the group of people or things related to the research (Gay,1990:102). The population of this research is the eighth grade students of SMP Negeri 2 Lintongnihuta in academic year 2019/2020. There are six parallel classes, and the total number of students are 240 students.

Sample
For the efficiency of this writer, the large number of the sample will be limited. As Arikunto(1998:120) says that if the subject of the population consists of a large number, the sample can be taken 10%-15% or 20%-25% of the population or it depends on the researcher's ability, based on the time available, energy, experience and finance. So the writer was taken 60 students (25% of the population) to be the sample.

In obtaining the sample, the writer used random sampling technique considering what Gay (1987:104) says that random sampling is the best single way to obtain a representative sample. No technique, not even random sampling guarantee as a representative sample but the probability is higher for this procedure than for any other.

The writer used random sampling by applying a lottery technique. The writer was writing the name of all eighth grade in pieces of papers, and then all the papers were put in a box. The box was shaken and then put the papers out. The two papers were taken the sample of the study. Then the students were divided into two groups, each group were consisted of 30 students. One group is the control group and the other group is the experimental group.

The Instrument of Collecting Data
To collect the data, written test was given to the students. The data was collected by using two writing tests; pre-test and post-test. The
students’ scores from pre-test and post-test were analyzed to know the students’ ability before and after having the treatments. In this study, the instrument of collecting data was a writing test. The students were asked to write a procedure text. The cumulative score was ranging from 0 – 100.

The Testing of Writing
In giving the score for the students’ writing test, there were some indicators that must be considered. According to Heaton (1988:146) the are five components that must be paid special attention to score, namely content, organization, vocabulary, language use, and mechanism. technique was applied. Post-test was administered twice, the post-test was given in order to know the improvement of students’ ability in speaking after taught by using Presentation, Practice, Production Technique.

The Data
The research had been conducted in four meetings. The data was collected by two kinds of instrument, they were pre-test, post-test I and post-test II. The data was required to answer the research question which gathered by administering pre-test, post-test and questionnaire. Pre-test was administered to obtain their pre-existing ability in speaking. In pre-test the subject were asked to tell about their experience by choosing one of the specified topics and then performed their story by virtual. It was done in order to know the subjects’ speaking ability before the technique was applied. Post-test was the last sessions. The post-test was given in order to know the improvement of students’ speaking ability after taught by using Presentation, Practice and Production Technique.

The Procedures for Collecting Data
For collecting the data, pre-test treatment and post-test was administered. All of them was discussed as in the following:

Pre-test
The pre-test was conducted to know each students’ ability in writing, both in the experimental and control group before doing the treatment. Both of groups was asked to write a procedure text.

The treatment
After conducting the pre-test, the treatment was conducted. The experimental group was taught by using group investigation strategy, while the control group was taught without using group investigation strategy.

Teaching Presentation in the Experimental Group
The writer was divided the class into 6 groups, and each group consist of 5 students, then the writer were asked the students to sit in their own group and explain what they are going to do in their discussion

Post-test
After conducted the treatment, both groups was given test by giving post-test. This post-test is exactly the same material as the pre-test, the writer ask the students to write a procedure text on a piece of paper. The function is to see the differences of mean score of experimental and control groups and to see whether the strategy will effective or not.

The Validity of The Test
The validity show whether the test used valid or not. The validity of the test is extend to which the test measures what is intended to measure (Harrison, 1983:11). There are several types of validity namely: content, construct, and face validity. Writing is regarded as a construct. So, the validity of the measurement in this research is construct validity. The construct validity was used in this study because it measured the study skill.

The Reliability of the Test
The concept of reliability refers to the consistency of measurement. Brown (2004), states that a reliable test is consistent and dependable. If the writer given the same test to the same students or matched students on two different occasions, the result of the test was similar. The test used in this research was writing test. The scoring of writing test involves the subjectivity, thus to find out whether the test was reliable or not, the writer would apply inter-rater reliability. Inter-rater reliability could be computed by applying coefficient correlation.
The coefficient correlation could be obtained by applying person product formula as follows:

\[ r = \frac{N(\Sigma XY) - (\Sigma X)(\Sigma Y)}{\sqrt{(N \Sigma X^2 - (\Sigma X)^2)(N \Sigma Y^2 - (\Sigma Y)^2)}} \]

where:
- \( r \) = The reliability of the test
- \( \Sigma X \) = SUM of the score x
- \( \Sigma Y \) = SUM of the score y
- \( N \) = The number of the students

According to Aruan (2002), the reliability of the test can be categorized as follows:

1. 0.00-0.20  reliability is very low
2. 0.20-0.40  reliability is low
3. 0.40-0.60  reliability is average
4. 0.40-0.80  Reliability is high
5. 0.80-1.00  Reliability is very high

**IV. DATA AND DATA ANALYSIS**

The data of this study were obtained after conducting the pre-test and post-test in experimental and control group. There were 60 students to be the samples to get the data. The data presented below were obtained from the students’ procedure text writing. The presentations of the data are shown in the table as follows:

**Data Analysis**

To find out whether or not the using of group investigation method significantly affects the students’ ability in writing procedure text, the data were calculated by applying t-test formula. The test formula is as follows:

\[ t = \frac{M_a - M_b}{\sqrt{\frac{(d_a)^2 + (d_b)^2}{(N_a + N_b) - 2} \left( \frac{1}{N_a} + \frac{1}{N_b} \right)}} \]

where:
- \( M_a \) = 23.5
- \( (d_a)^2 \) = 905.5
- \( Na \) = 30
- \( Mb \) = 17.1
- \( (d_b)^2 \) = 611.5
- \( Nb \) = 30

**Testing the Reliability of the Test**

According to the calculation of the reliability of the test (see Appendix 2), it was obtained that the coefficient of reliability \( r = 0.96 \). It mean that the reliability was very high. So it can be said that the test is reliable when the coefficient of reliability \( (r) \) is between -1.00 and 1.00.

**Testing Hypothesis**

In testing hypothesis, the basic theory is that \( Ha \) (alternative hypothesis) is accepted if the t-calculated is higher than t-table (t-calculated > t-table). Based on the calculation of the t-test, it
was found that calculated (4.874) was higher than \( t \)-table (2.00) for degree of freedom (df) 60 at the level of significance \( p = 0.05 \). It can be seen as follows:

\[
t_{\text{calculated}} > t_{\text{table}} \quad (p = 0.05) \text{ with } df = 60
\]

\[
4.874 > 2.00 \quad (p = 0.05) \text{ with } df = 60
\]

Thus, it can be said that \( H_a \) is accepted and \( H_0 \) is rejected. In other words, that is to say that group investigation method significantly affects the students’ ability in writing procedure text.

### Research Findings

It was found that the treatment conducted to the experimental group by using group investigation method significantly affects the students’ ability in writing procedure text, it can be seen from the difference of mean score from the both of the groups. Based on the calculation, the mean score of experimental group was higher than that of control group and also because the result of \( t \)-test (t-calculated) was higher than \( t \)-table at the level of significance \( p = 0.05 \) (4.874 > 2.00). It means that there is a significant difference between both of the groups. The treatment conducted in experimental group was better than that of control group.

### V. CONCLUSIONS

After the process of analyzing data had been completed, the conclusions were drawn as follows:

1. In experimental group, from the data analysis gotten Mean (M) and deviation (d) 905.5 of pre-test and post-test.
2. In control group, from the data analysis gotten Mean (M) 17.1 and deviation (d) 611.5 of pre-test and post-test.
3. The alternative hypothesis (Ha) is accepted because based on the calculation of the \( t \)-test, it was found that t-calculated (4,874) was higher than \( t \)-table (2.00) for degree of freedom (df) 60 at the level of significance \( p = 0.05 \). So, there is a significance effect of using of group investigation method on students’ ability in writing procedure text.
4. The treatment by using group investigation method showed students’ better achievement in writing procedure text.

### REFERENCES


