CHAPTER III

METHODOLOGY

In this chapter the researcher describes about the research method which used in this study. This research consist of research design, population and sample, data collection which consist of instruments and the procedures of collecting data, and data analysis which consist of analysing the results of test.

3.1 Research Design

This study belong to experimental research because the aim of this study is to investigate the effect of applying guided imagery strategy on students' writing recount text. The one of the most powerful research methodologies is experimental research. Many types of research may be used but the best way to establish cause and effect relationship among variables is experiment. According to Arikunto Suharsimi (2006) states that experiment is the way to look the relationship of cause and effect.

According to Ary (1990:336), the goal of the researcher is to use designs that provide full experimental control through the use of randomization procedures but there are many situations that impossible for the researcher to do true experiment design because the researcher may not possible to random the students in the class. Here, the researcher uses quasi-experimental research design because in this school the headmaster forbid the researcher to random the class. Based on Best (1981:72), quasi-experimental design happens because the random process of experimental and control group cannot be applied. The design chart can be seen in figure below:

Group	Pre-Test	Treatment	Post-Test
Experimental	+	+	+
Control	+	-	+

Table 3.1. Pre-test, Post-test Quasi Experiment Design

Where:

+ : With treatment of Guided Imagery

- : Without treatment of Guided Imagery

The researcher uses two groups in this quasi experimental research. First is experimental group and the second is control group. The experimental group use Guided Imagery Strategy as the treatment and the control group use Question Techniques. In this case, the researcher uses the same grade for both groups. It will make this research relate and reliable. The researcher decided to choose class VIII G as the experimental group and class VIII H as the control group. Pre-test is administered before the application of the experimental and control tratments and post-test at the end of the treatment period.

3.2 Population and Sample

This study is conducted on second semester students in the eight grade of SMP N 2 Kebomas Gresik. The population of this study is 295 students in the eight grade. The subject is 32 students in VIII G and 33 students in VIII H.

The researcher chooses the cluster random sampling in determining the sample of the study. This technique is similar with simple random sampling but simple random sampling used individual selection, cluster random sampling used class selected. Class VIII G was taken as the experimental group and VIII H was taken as control group.

3.3 Data Collection

3.3.1 Instrument

In this study the researcher use test as the instrument. Test is very important part in teaching and learning experience. Test is a set of questions which used to measure the skill knowledge, intelligence, and talent of an individual of a group. According to Suharsimi Arikunto (2002:53) test is a tool or procedure that conduct to measure or know thing by using a method or rules had been given. Tuckman (1975:207) states test is a device for sampling behavior or peformance related the skills, competencies, attitudes, or other characteristics of people.

For collecting the data the researcher use test because it is very useful to know the students achievement in understanding material which given by the researcher. In this research, the researcher gets data from pre and post test.

3.3.1.1 Pre-test

Pre-test is carried out to find out the initial different between experimental and control groups as they have similar level in writing ability. Before using the technique as a treatment, the researcher arrage pre-test to the subject. Pre test was arranged in both of experimental and control group. Pre test was used to know the basic ability of students in writing recount text. The researcher give 60 minutes for finishing the test.

3.3.1.2 Post-test

Post test is also done by the experimental and control group. The procedure of post test is same with pre test, but in post test the test was conducted after giving all treatment. It is to measure that the treatment is success or not. The researcher also give 60 minutes for finishing the test.

3.3.2 Validity

Before conducting pre test and post test as instrument of this research, the researcher will test the validity of the item. Validity is a compatibility test with the main targets that need to be measured. There are three kinds of validity, those are content, criterion and construct validity. The instrument called valid if it has validity. Here the researcher use content validity to check the test. The researcher check the instrument validity based on English Curriculum and syllabus. Based on Djiwandono (2011:165) content validity can be done by arranging the outline of the task requirement in taking the test which compare with the items in the test or the content in the curriculum. Here, the researcher helped by the English teacher to check the instrument based on curriculum and syllabus.

Here is the details:

No.	Basic Competence	Sub Basic Competence	Test	
			Pre Test	Post Test
1.	6.2.Mengungkapkan makna dan langkah retorika dalam esei pendek sederhana dengan menggunakan ragam bahasa tulis secara akurat, lancar dan berterima untuk	Mengungkapkan makna dan langkah retorika dalam esei pendek sederhana dengan menggunakan ragam bahasa tulis secara akurat, lancar dan berterima untuk berinteraksi dengan	Free topic	Choose one of the topic. a. My Holiday b. My latest Eid Mubarak c. My Unforgettabl

berinteraksi dengan	lingkungan sekitar	e Moment
lingkungan sekitar	dalam teks	
dalam teks	berbentuk *recount*	
berbentuk *recount*		
dan *recount*		

Table 3.2. Basic Competence and Sub Basic Competence in Validity

3.3.3   The Procedure of Collecting Data

The data were taken from the written test on experimental group. There are some steps that the researcher used to collect the data on experimental groups, those are the researcher gave the pre test to the students, the researcher taught writing recount text using guided imagery strategy, the researcher gave post test to the students and the researcher collected the test

In addition, the researcher took the data in the form of the written test on the control group, those are the researcher did pre test to students, the researcher used questions technique to teach writing recount paragraph, the researcher gave the post test to students and the researcher collected the test.

Here the researcher conduct both of the experimental group and control group are three meetings. The topic of the first meeting is about holiday, the second meeting is about Eid Mubarak and the third meeting is about Unforgettable Moment. So based on those explanation, researcher makes 6 lesson plan. Three for experimental group and three for control group. Before and after the treatment the researcher gave the pre and post test.

3.4 Data Analysis

3.4.1 Scoring Technique

This study use scoring technique based on the standart criteria of writing compositions. According to Heaton (1975:36) stated that the scoring guide used the method of analytical and was chose because it was ideally suited to the classroom situation, its certain features have been graded separately. In giving scores to students, the researcher used analytic scale which categorized by some categories. The rubric was used to evaluate students' written works in this study covers some aspects such as content, organization, vocabulary and mechanic and grammar. The researcher uses analytical scoring rubric adapted from Ken Hyland.

No.	Criteria	Precentage	Rating Score			
			100-90	89-80	79-60	<59
1.	Content	30%	The events are clearly stated, using direct quotation and easy to understand	Event fairly clearly stated, using direct quotation, and quite easy to undestand	Event only sketchy, no direct quotation, and not quite easy to understand	Not recogniz able events and confused , no direct quotation
2.	Structure	25%	Orientation gives all essential info (who, when,	Orientation gives all essential info (who, when,	Orientation gives some information s, paragraph partly in	Orientati on gives one informati on,

No.	Aspect	Weight				
			where), paragraph in chronological order and the reorientation clearly stated	where), largely chronological and the reorientation stated	cronological and the orientation not clearly stated	disorganized sequecing and there is no reorientation
3.	Mechanic	10%	A few errors of spelling, capitalization, and punctuation.	Occasional errors of spelling, capitalization and punctuation	Frequent errors of spelling, capitalization, and punctuation	Dominated by errors of spelling, capitalization and punctuation
4.	Grammar	20%	There is almost no error in using past tense and the arrangement	There are a few errors in using past tense and the arrangement of sentence	There are many errors in using past tense and the arrangement of sentence	Almost all sentences contain errors and the arrangem

			of sentence is good	is almost good	is bad.	ent of sentence is bad.
5.	Vocabulary	15%	Excellent choice of vocabulary or many vocabulary variations	Adequate vocab choice/few vocabulary variations	Lack of variety in choice of vocabulary or almost no vocabulary variations	Poor of vocabulary and lack of vocabulary variety

Table 3.3. Scoring Rubric

The guide for scoring :

The total of the score for each aspect will accumulate from the percentage of each aspect, then times with the periodic of the score in each criterias.

Score : the percentage for each aspect X periodic score from each criteria

: (the weight of percentage) x (periodic score for each criteria)

Score	Criteria
100-90	Excellent
89-80	Good

79-60	Weak
<60	Poor

3.4.2 Analysis the data of test

After conducting pre and post test the next step is analysing the data. In conducting a research, it is a requirement to anayze the data in order to interpret the data obtained from the field. The data analysis is carrying out in order to answer the research problems with the data obtaine through pre test and post test. The researcher analyzes the data by using independent sample t-test. Since the samples are small and the groups are independent, the t-test for independent samples is carried out to determine whether there is any difference betrween experiment group and control group. The researcher used SPSS version 15.0 to compute recount statistics, its are conducted in order to find the effect of the treatment whether there is significant or not using guided imagery strategy.

Assumption for the independent t-test where: (1) Independence: observation within each sample must be independent (they do not influence each other). (2) Normal distribution: the scores in each population must be normally distributed. (3) Homogeneity of varience: two populations must have equal variances (the degree to which the distribution are spread out is approximately equal). Here is the steps of analyze data:

3.4.2.1 Normality distribution Test

To analyze the normal distribution, this study use Komogorov Smirnov Sample Test in SPSS version 15.0. It is aimed to find whether or not the distributions of pre-test score in two groups are normally distributed. In this case, the result of the normality distribution is also used to find out whether or not the hypothesis that had been determined is accepted. The first step in calculating the normality distribution test state that the hypothesis: H0: the score of the experimental and control group are normally distributed.

The second step is calculating the normality distribution test tried to compare the Asymp.Sign.(probability) with the level of significance for testing the hypothesis. If the Asymp is more than the level significance (0.05) the null hyphotesis is accepted; the score normally distributed. On the other hand if the Asymp is less than the level of significance (0.05) the null hyphotesis is rejected. The procedure analyze is press menu, choose nonparametric test after that you choose 1= sample K-S click exact, choose monte carlo 99% and click OK.

3.4.2.2 Homogeinity Test of Variance

The researcher uses one Lavens' test of homogeneity test in SPSS version 15.0 for homogeneity test. This test is used to find out whether the variance of pre test and post test of experimental group and control group are homogenous. The test statistic of Lavens' test'(W) is defined as follows:

$$W = \frac{(N-k)}{(k-1)} \frac{\sum_{i}^{k} = 1 \, Ni(Zi - Z)^2}{\sum_{i}^{k} = 1 \sum_{j}^{Ni} = 1 \, (Zij - Zi)^2}$$

Where:

W   : The result of the test

K   : The number of different groups to which the sampled cases belong

N   : The total number of cases in all groups

Ni   : The number of cases in the i group

Y_{ij} : The value of the measured variable for the jth case from i^{th} group

$$Zij = \begin{cases} |Y_{ij} - \acute{Y}_i|, & \acute{Y}_i \text{ is a mean of } i-th \text{ group} \\ |Y_{ij} - \acute{Y}_i|, & \acute{Y}_i \text{ is a median of } i-th \text{ group} \end{cases}$$

The significance of W is tested against F (α, K- 1, N-K) where F is a quantile of F test distribution, with K − 1 and N − K its degrees of freedom, and α is the chosen level of significance (usually 0.05 or 0.01)

Zawawi (2012: 28) stated that the procedure in analysing the homogeneity by using SPSS version 15.0 are follow: first, makes two columns. The first column is a group and the second column is a score after pre test data of both experimental and control group are input, then click Analyze then Compae Means then Independent Sample T-Test, input the score into Test Variable and the grouping variable, then click define groups to determine group 1 (for experimental) and group 2 (for control) click continue and the last click OK.

3.4.2.2 Hypothesis Testing

Independent t-test was used to know the significant difference between experimental group and control group had to be accepted or rejected.

The first step was stating the hypothesis and setting the alpha level at 0.05 (two tailed test). In this research, the hypothesis used null hypothesis that said "There is no significant influence effect of guided imagery strategy on students' writing recount text at the eight grade of SMP Negeri 2 Kebomas Gresik". The hypothesis can be formulated as follow:

Null hypothesis is $\mu_1-\mu_2=0$ ($\mu_1=\mu_2$)

Alternative hypothesis is $\mu_1-\mu_2\neq0$ ($\mu_1\neq u_2$)

H0 : the influence effect of students' writing recount text through guided imagery strategy

H1 : the influence effect of students' writing recount text through without guided imagery strategy

Hypothesis testing in this research was:

Ho: There is no significant influence effect of using Guided Imagery Strategy on Students' writing recount text at the eight grade of SMP N 2 Kebomas Gresik

H1: There is significant influence effect of using Guided Imagery Strategy on Students' writing recount text at the eight grade of SMP N 2 Kebomas Gresik

The second step was finding t-value using independent t-test formula and comparing the probability with the level of significance for testing the hypothesis. Determining t-critical in table t=(0.05) df, the researcher compared t-observed and t-critical. If t-obs<t-critical, the researcher should accept the null hypothesis and if t-obs>t-critical, it means the researcher can accept the alternative hypothesis.

T test was calculated to find out the comparison of two means between experimental and control group pre and post test, in analyzing the data, the researcher used independent t test formula. The formula is:

$$t = \frac{(x_1 - x_2) - (\mu_1 - \mu_2)}{Sx_1 - x_2}$$

Where:

t   : is t value

x_1 : is average group 1

x_2 : is average group 2

S   : is standart error of two groups

$\mu_1 - \mu_2$: is always defaults to 0

Where:

$$Sx_1 - x_2 = \sqrt{\frac{S^2pooled}{n_1} + \frac{S^2pooled}{n_2}}$$

Sx_1-x_2 : is standart error of two groups

$S2pooled$: is variants of two groups

n_1 : is number of sample group 1

n_2 : is number of sample group 2

Pooled variance: the average of two sample variances, allowing the larger sample to weight more heavily.

Formula:

Estimated standart error of the difference

$$Sx_{1-x_2} = \sqrt{\left(\frac{SS_1 + SS_2}{n_1 + n_2 - 2}\right)\left(\frac{1}{n_1} + \frac{1}{n_2}\right)}$$

Therefore, the results of the test were subjected for the following statistical procedures. To calculate t-test, the researcher uses SPSS (Statistical product and service solution) version 15.0. the post test score experimental and control group were analyzed by using SPSS version 16.0 with the following procedures. The first procedure was inserting the post test data both experimental and control group using the data view. The second procedures were going to the analyze menu, selecting compare means, then choosing independent sample t test output, automatically it could answer to the research question about the comparison between two groups. The final result was collected by means of pre test and post test score. It is aimed to find out the significance on the effect of Guided Imagery Strategy on students writing recount text.