CHAPTER III

RESEARCH METHOD

This chapter discusses the method that is used in this study. The discussion includes research design, population and sample, research instrument, data collection technique, data analysis technique, and research procedure.

A. Research Design

This study is an experimental research. Experimental research is designed to know the cause-effect relationship by implementing stimulus.[1] It means that independent variable gives effect to dependent variable.

In the research used quasi experimental as research design, it was caused to find causal relationship between two factors from one to other variables. In this study, Realia is independent variable while students' writing ability in descriptive text is dependent variable. According to Graziano and Raulin, quasi experimental has important things of experiments included in causal hypothesis and some type manipulations to compare two or more conditions.[2] The subject of the research cannot be randomly assigned to experimental group and control group for conducting experiments.

In this study, researcher divided two groups of class to identify initial differences between both of groups. They were experimental group and

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[1] Tharenou Phyllis et.al, *Management Research* (New York: Cambridge, 2007), 34.
[2] Ibid., 35.

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control group. Both of them were given pre-test before giving treatment, and post-test after giving treatment. The experimental group was given special treatment and control group was not. Then, the results of both groups were compared to know cause –effect of the treatment.

In this study, researcher compared the result of test to measure the differences between the first test and final test of both groups.

Table 3.1

Group	The test score	Treatment	Final score
Experimental	O_1	X	O_2
Control	O_3		O_4

Treatment effect = $(O_2 - O_1) - (O_4 - O_3)$

Explanation:

A   : Experimental Group

B   : Control Group

O_1 : The test gives before treatment in experimental group

O_2 : The test gives after treatment in control group

X   : Treatment

P_1 : The final test gives before treatment in experimental group

P_2 : The final test gives after treatment in control group

In this research, for conducting the data researcher used two classrooms to be tested. The first was as experimental research and another was as control group. The purpose was to answer the research problem as written in the first chapter, and also to analyze hypothesis about students writing ability in descriptive text by using Realia Strategy for second grade of junior high school Kyai Hasyim Surabaya.

B. Population and Sample

The research was hold in junior high school Kyai Hasyim Surabaya at the second grade especially for students at second semester. The location is in Jln. Tenggilis Kauman No. 28 Surabaya. This research started from 17th April until 28th April 2015.

In this case the subject of the study was the VIII grade students of junior high school. The underlying reason of choosing the VIII grade of junior high school was that the consideration of the importance in mastering descriptive text for the program which focused on language rather than another program. In addition, the student of junior high school had more basic in English especially in descriptive text, so they could implement realia as media to stimulate students' interest easily.

The classroom was being students of middle school (eighth grades with ages 13-15). They had low motivation in English particularly for writing. They got writing activity, they needed a guidance and endorsement to enhance

their writing ability. They learnt English as a foreign language which became one of courses in their school.

In this study, the researcher used the population and the sample. Population is a group of individuals who have certain quantity and characteristic. Sample is sub-group of the target population include in quantity and characteristic that researcher plans to study about the target population.[3] So, the population here was all students of junior high school at the second grade. The researcher used purposive sampling, it means that purposive sampling is a method used to be sample based on the criteria of respondent.

In this study, researcher interviewed the English teacher before making the research to know students ability in writing especially in writing descriptive text. The English teacher said that VIII A and VIII B had same ability, same condition and same level attention; it can be seen from the score or students' achievement and students respond and attention in learning process. After that the researcher gave test before giving treatments to both of classes to prove that both of classes had same ability, condition and level of attention. The result stated that VIII A and VIII B had same ability in writing descriptive text.

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[3] Sugiyono, *Metode Penelitian*, 43.

C. Research Instrument

The research instruments are tools used by researchers in collecting data. To get the valid and reliable data for making a trustworthy hypothesis, in this study researcher used test of written compositions as instrument of the research.

The test was the main instrument to give the researcher data about the students' ability. The test was in form of essay writing.

In this case the researcher used the participatory research which means the researcher would direct the teacher to teach the student with the treatment given and test them based on the aspect established by researcher. In grading and scoring the researcher used analytic scales with explicit and detailed scoring rubric adapted from Self (n.d.) to get the more validity and reliable grading of the test. (Appendix 1) The rubric is a set of characteristic that used to evaluate writing, with rubric researcher can assess and give the score of writing.[4]

In addition, rubric is able to measure language proficiency and academic achievement.[5] In this study, the researcher purposed to measure academic achievement including in sub academic writing: descriptive text. The achievement test was the test which directly related to the course, the purpose was to establish how successful individual student, group of the students or

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[4] Keenansegal and Cherylpavlik, *Interaction 2 Writing*, 18.
[5] Margo Gottlieb, *Assessing English Learners* (USA: Corwin Press, 2006), 115.

the course themselves had been achieving the objective. For this reason researcher used this kind of test in measuring the student achievement before and after implementing the treatment.

The data taken from this study was score of students test. There were two kinds of the test; they were the first test given before giving treatment, and final test given after giving treatment. The result of students test was be guidance in assessing how students improved writing ability and how students enhanced achievement by using realia strategy. In this study, researcher provided some aspects of writing assessment based on analytic scoring rubric taken by self (n.d.). This rubric was used for ELL (English Language Learner), ELL is a student who is in the process of acquiring English and whose native language is not English or who comes from a background where a language other than English spoken.[6]

There were five components assessed on writing ability on descriptive text; they are composing, style, word formation, usage and mechanics.[7] Each component of five aspects had maximal score and minimum score. The maximal score of all aspects are 4, and 1 for the minimum score. The score was based on the degree of control the student's paper exhibits for that component.

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[6] J. Michael and Valdez Pierce, *Authentic Assessment for English Language Learners*, 238.
[7] Ibid., 144,145.

4 = Consistent control

3 = Reasonable control

2 = Inconsistent control

1 = Little or no control

D. Data Collection technique

In this study, the researcher used several research methods, in order to obtain the necessary data and information. To gather the information about the subject of study, the writer used tests as data collection technique.

a. Test

To measure how effect the implementation of the treatment the researcher used achievement test. The purpose was to find out whether students writing ability in descriptive text improve through the use of realia strategy. The test was held in two sessions, the first session was test that given before implementing treatment and the second test was final tests that given after implementing the treatment.

1) The First Test

The test was given to students in the classroom both experimental group and control group before treatments were given. The test was done after students getting the general explanation of the study. It means that test was purposed to know the students writing ability in making descriptive text before getting treatments.

2) Final test

Final test was given to students in the classroom both experimental group and control group after treatments were given. But in this study, experimental group had special treatment: realia strategy.

For the test was in form of making descriptive text which students asked to write the descriptive text based the topic that was given. The test and final test of two groups used same instrument, same respondents, but different time.

E. Data Analysis Technique

This was the most important step of the research that lead the researcher to the conclusion about the collected data. For this reason, researcher chose the appropriate data analysis to come up with the valid hypothesis.

In this study, researcher had treatment to analyze how the treatment that would have the effect on students' writing ability in descriptive text. Here researcher used independent sample t-test as the statistic method to analyze the data. Researcher analyzed the data concerning students' writing ability in descriptive text through the use of realia strategy.

The data was from the student test result before and after implementing of treatment. The result of test was calculated using computer program especially SPSS 16. Firstly researcher used statistic descriptive analysis to

know students' writing ability who were treated by realia strategy as experimental group and those who were not treated by realia strategy as control class. The next step the researcher used independent sample t-test to know the effectiveness of realia strategy to improve students' writing ability in descriptive text. In this study, the researcher used computer program of SPSS 16 in analyzing statistic data.

1. **Analyzing Data between the first Test Score of Experimental Class and Control Class**

   a. **Determining Score for Experimental Class and Control Class**

   The score of experimental group and control group were counted from each aspect of five components: Composing (C), style (S), sentence formation (SF), usage (U) and mechanic (M). The next step, the result of each component multiplied with 5. When all score of five components were multiplied all score of each component was added with others to find the total score, while every component has 4 of maximum score and 1 of minimum score.

   C (5) + S (5) + SF (5) + U (5) + M (5)

   4 (5) + 4 (5) + 4 (5) + 4 (5) + 4 (5) = 20 +20 +20 +20 +20

   = 100

b. Calculating means for each group

Calculating mean was gotten from the sum score divided by the number of students. The result of mean score was compared between experimental group and control group. It was aimed to determine that two groups had relatively same ability.

c. Calculating t-test (independent sample t-test)

This calculating t-test was done after getting pretest score and mean score of experimental group and control group to support the result determined that two groups had same ability. Firstly, the researcher compared the significant value or sig. (2-tailed) with critical value (0.05). The next step, the researcher compared t-value with t-table. The last step, the researcher tested the hypothesis which the critical value was 0.05.

H_0 : There is no significant different between experimental group and control group.

H_1 : There is significant different between experimental group and control group.

Significance value > 0.05 (It means that H_0 is accepted and H_1 is rejected)

Significance value < 0.05 (It means that H_0 is rejected and H_1 is accepted)

H_0 will be accepted if t-value < t-table

H_1 will be accepted if t-value > t-table

2. **Analyzing Data of Final Test Score between Experimental Group and Control Group**

a. **Calculating the Final Score and Mean Score**

The score of final test score was counted using rubric adapted from Self (n.d.). There were five components of written aspect: Composing (C), Style (S), sentence formation (SF), usage (U) and mechanic (M). The result of each component multiplied with 5.

C (5) + S (5) + SF (5) + U (5) + M (5)

4 (5) + 4 (5) + 4 (5) + 4 (5) + 4 (5) = 20 +20 +20 +20 +20

$$= 100$$

The next step, the researcher calculated the mean score of both groups. The result of final test score and mean score between two groups was compared to know the differences of writing ability for students who were treated by realia strategy and those who were not treated by realia strategy. The researcher determined the interpretation score criteria in writing ability as bellows:

Table 3. 2

The interpretation Criteria Score

Interpretation criteria score	
Equivalence	**Level of achievement**
86-100	Excellent
76-85	Very Good
66-75	Good
56-65	Average
<55	Poor

3. **Analyzing Data Using Independent Sample T-test**

   a. **Calculating the Normality Test**

      The normality test was used to check whether the posttest score of experimental group and control group were normally distribution or not. The researcher calculated the normality test by using computer program especially SPSS 16. The researcher determined the hypothesis criteria as below:

      H_0 : Sample distributes normal (If the Significance value is higher than critical value: Sig > 0.05, therefore H_0 is accepted and H_1 is rejected)

H_1 : Sample does not distribute normal (If the Significance value is lower than critical value: Sig < 0.05, therefore H_1 is accepted and H_0 is rejected).

b. Calculating the Homogeneity Test

The homogeneity test was used to check whether or not the posttest score of experimental and control group had same variance. The homogeneity test was calculated using computer program especially SPSS 16. The researcher determined the hypothesis criteria as below:

H_0 : The quality of variance between two groups is homogeneous.

H_1 : The quality of variance between two group is not homogeneous.

The significant value < critical value, H_0 will be accepted

The signivicance value > critical value, H_1 will be accepted

c. Calculating independent T-Test

In calculating independent t-test, the researcher used computer program especially SPSS 16 to calculate the significant value and t-test. The next step, the researcher compared the result of significant value with critical value and also compared the result t-test with t-table.

1) Arranging the Hypothesis

H_0 : There is no significant improvement in achievement between students who are taught by using Realia strategy than who are not taught by using Realia strategy.

H_1 : There is significant improvement in achievement between students who are taught by using Realia strategy than who are not taught by using Realia strategy.

H_0 will be accepted if t-value < t-table

H_1 will accepted if t- value > t-table

2) Determining Alpha (α)

Alpha = 0.05

H_0 is accepted if significance is higher than 0.05

H_1 is accepted if significance is lower than 0.05.

For two side hypothesis, Alpha (α) / 2 (0.05/ 2 = 0.025).[8]

H_0 is accepted if significance is higher than 0.025

H_1 is accepted if significance is lower than 0.025

F. Research Procedure

The procedure of this study was conducted within two cycles that each cycle had four steps, namely: test, treatment 1, treatment 2, and final test. Test was conducted before giving treatment while final test was conducted after treatment. The data from test and final test was collected to know students' writing ability in descriptive text as guidance to answer the question of this study. The research schedule was figured out in the text following table:

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[8] Syofian Siregar, *Metode Penelitian Kuantitatif* (Jakarta: Kencana Prenada Media Group, 2013), 188.

Table 3.3

The Research Procedure

NO	EXPERIMENTAL GROUP		CONTROL GROUP	
	DATE	TOPIC	DATE	TOPIC
1	17th April 2015	The First Test	18th April 2015	The First Ttest
2	21th April 2015	Treatment 1 (Using realia strategy to teach descriptive text))	20th April 2015	Treatment 1 (without using realia strategy to teach descriptive text)
3	24th April 2015	Treatment 11 (Using realia strategy to teach descriptive text)	25th April 2015	Treatment 11 (Without using realia strategy to teach descriptive text)
4	28th April 2015	Final Test	27th April 2015	Final Test

The researcher made planning first before doing action. The researcher permitted to English teacher for doing research. Finally researcher got recommended from English teacher to do research at VIII A and VIII B, it was caused both of class had same ability, condition and level of attention. The researcher limited to VIII B as experimental group and VIII A as control group. Here the researcher prepared the material and media of the study that the researcher needed and discussed about the implementation of Realia in the class room with the English teacher, the researcher made a lesson by using special treatment of Realia strategy for experimental group related to descriptive text that would be needed during the treatment. The design of the lesson plan was based on the standard competence and the basic syllabus of the school which was developed by teacher.

The researcher gave test to both groups: experimental group and control group by using some themes without giving treatment. The test of experimental group was done at 17th April 2015 and control group was done at 18th April 2015. In the research the first test was administered by using written test. Both of groups were asked to write descriptive text about "My school". The students were asked to describe about SMP Kiyai Hasyim. Next, the students' works were assessed using analytic scoring rubric adapted from self (n.d.). There were five aspects as productive writing: they are composing, style, sentence formation, usage and mechanics.

The researcher gave special treatment to the experimental group and control group did not. Here the experimental group was taught by using Realia method while the control group was not taught by using realia method. Although the methods were different but the teaching materials and activities were similar. The researcher gave two treatments to the class as teaching and learning by using Realia.

In the first treatment teacher came to the class with greeting and sharing purpose of study, then the teacher gave vocabularies related to the topic "flower", in experimental group the teacher introduced "The Rafflesia Arnold" using some pictures in power point form and control group did not. The teacher gave difficult vocabularies and asked them to find the meaning using dictionary (Doing in pair). After that, teacher gave an example of descriptive text and asked students to fill in the blank correctly based on vocabularies provided by teacher. The results were discussed together in classroom. Next, teacher gave explanation about definition of descriptive text and how to write descriptive text well based on analytic scoring. After that, the teacher asked students to arrange the sentence became a good paragraph individually to know students understanding in descriptive text. The last, teacher asked students to make group, there were three or four students in one group. Each group was asked to make mind map about "The Rose" provided by teacher and then each students made descriptive text about the rose

individually. Experimental group was divided the flower of rose for each group and control group was not.

The second treatment did not different with the first treatment. Teacher started with the greeting and shared the purpose of the study. This treatment chose "My Idol" as topic. Firstly, teacher gave some example about descriptive text related to the topic. After that, teacher gave picture about a singer from United States "Brittney Spears". The students were asked to observe the picture and mind map about Brittney Spears. Teacher asked students to find the meaning of difficult vocabularies of the words in dictionary related to the Brittney Spears. Then, the teacher asked students to complete the short paragraph with suitable words. In the middle of lesson teacher gave explanation about descriptive text and how to write descriptive text well based on analytic scoring. The teacher asked students to make descriptive text about an actor (Raffi Ahmad) with given key word, teacher limited to experimental group with giving some pictures and playing video about the object

The researcher gave a final test to both groups after treatment processes were done. The obtained score of final test was used as a final comparison to determine whether or not there was any significant difference between students' achievement in experimental group and control group. The students' work was assessed using analytic scoring rubric. In final test, it was given a

written test to both groups, the students in experimental group and control group were asked to write descriptive text about "Joko Widodo" with paying attention five categories that had been explained by researcher as criteria in assessing writing product.