CHAPTER III

RESEARCH METHODS

Discussing about the research method, it was an important thing in scientific research. In this chapter, the researcher discussed and reviewed research methods that were used in this study. First, it discussed about the research design and continued with setting and subject of the study. Then, it discussed about sources of data, data collection technique, instruments of the study, and data analysis technique.

A. Research Design

In this study, the researcher used a *Comparative Research*. As Nana Syaodih stated that quantitative research divided into two categories *Experimental Research* (Pre-Experimental, True Experimental, Factorial Experimental and Quasi Experimental) and *Non-Experimental Research* (Descriptive, Comparative, Correlation, Ex Post Facto and Action),[1] The purpose of this study was to determine which one is more better on technique in teaching vocabulary at SMP IPIEMS Surabaya. The designs employed two groups, the A group and B group. The A group got the treatment of using Guessing Word from Context. The

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[1] Sukmadinata, Nana Syaodih, 2007, *Metode Penelitian Bahasa*, PT REMAJA ROSDAKARYA, Bandung. P.53.

treatment was in the form of using reading passage as implementation of the technique Guessing Word from Context in teaching vocabulary. While the B group was taught by the technique using Pictures that was related to the meaning of content the reading passage. This is to measure objectively of a student's income of vocabulary.

According to Sugiyono a comparative research is used to examine the parameter's population that organized as comparison, it was through sample shaped that also considered as comparison too.[2] This research was aimed to know the best result from two techniques conducting at two classes by comparing them in increasing vocabulary, this research identified to be the *Comparative Research* because according to Zainal comparative study is the kind of research that used to compare two groups or more from certain variable.[3]

Both groups were given the same topic and the same test with difference technique based on the standard competence and the basic competence of their school. To measure the differences of the mean score of the both groups, a pre-test and a post-test were administrated. The pre-test were given at the beginning of the study in order to know the students' vocabulary mastery before the treatment and the post-test would be offered later by the end of the treatment to both A group and B group.

[2] Sugiyono, 2010, *Statistika Untuk Penelitian,* ALFABETA, Bandung. P.117
[3] Arifin, zainal, 2012, *Penelitian Pendidikan Metode Dan Paradigm Baru*, PT REMAJA ROSDAKARYA, Bandung. P.46

B. **Hyphothesis**

This study consists of two hyphotheses. They are:

Ho : Do the students at SMP IPIEMS Surabaya who have been taught vocabulary using technique of Guessing Word from Context have better understanding than those who have been taught by the technique using pictures.

Ha : Do the students at SMP IPIEMS Surabaya who have been taught vocabulary by technique using Pictures have better understanding than those who have been taught using technique of Guessing Word from Context.

This hyphotesis based on the sugiyono stated that comparative hyphothesis is a statement showing the alleged value in one or more variable at different sample.[4]

C. **Subject of The Study**

1. Population

Population is the group that consist of object or subject that has certain quality and characteristic established by the researcher to gain a conslusion.[5] The population in this research was all classes of the seventh grade students at SMP IPIEMS Surabaya. There were eight classes. Every class consisted of 31

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[4] Dr. Sugiyono. *Statistika Untuk Penelitian*. CV. ALFABETA. Bandung. P.85
[5] Ibid. Sugiyono. P 61.

students. So, the total numbers were 248 students. The researcher chose the seventh grade students. because they were the best age to implement those techniques. The students were not taught using many techniques before. Moreover mostly the techniques of using Guessing Word From Context and the technique of using Pictures at junior high school as teaching language offered fun activity and rarely applied in teaching learning English, so it got to be the validity of the acquirement the both techniques. The researcher also thinks that the students' mastery of vocabulary at the seventh grade were still low. So the both techniques were suitable to increase students' understanding of vocabulary.

2. Sample

Sample is the group of people whom the researcher selected for this study. In other words, it is selected part of population to be subject of the research.[6] The data was gotten from population using *Simple Random Sampling* as the technique of sampling. As William M.K Trochim said that simple random sampling is easy to accomplish and explain to other. Because simple random sampling is a fair way to select a sample, it is reasonable to generalize the results from the sample back to the population. [7] There were eight classes of seventh grade students each class consists of 31 students, the

[6] Ibid. William. P 42.
[7] William M.K. Trochim, 1999 *The Research Methods Knowledge Base, Second Edition*, Cornell Customs

total of student was 248 students that divided in afternoon classes. because the morning classes consist of eighth and ninth grade students.

The afternoon classes consist of 7A, 7B, 7C, 7D, 7E, 7F, 7G and 7H before the researcher took the sample from all of the morning classes. Then, the researcher determined the A group and the B group as sample in this study. The researcher took short cut of paper and write down the seventh grade students. The reasearcher asked the English teacher there to determine two classes as became A group and B group, so that the researcher found two classes that consisted of 7E and 7G as the sample that represented all of the afternoon classes. After the two classes had been selected, the researcher made some of lottery to determine the classes. A group was taught by the technique of using Guessing Word from Context and the B group was taught by the techniques of using Pictures.

After the class selected for each technique, the researcher conducted the pre-test to determine the quality of each classes before conducted the treatment. Pre-test aimed to know the quality of the sample and to determine a material of the technique using Pictures and the technique using Guessing Word From Context. The pre test aimed also to measure the students achievement before the treatment. While giving the treatment, the researcher tried to make sure that the students followed the treatment until the end.

D. Setting of The Study

The researcher focused on SMP IPIEMS Surabaya. It is located on street Menur 125 Surabaya. it is located in front of the psychiatric hospital Menur Surabaya.

E. Source of The Study

Source of the data was the important thing in a field research. The sources of the data of this research are as follow:

1. The documents, books, and references that were needed in this research.

2. The English teacher of the seventh grade students of SMP IPIEMS Surabaya.

3. The seventh grade students of SMP IPIEMS Surabaya.

F. Research Procedure

To find out the success of this study, there were some considerations to be conducted in this research. They were preparing the material, preparing lesson plan, conducting pre-test, conducting post-test, and analyzing data. They were conducted through several procedures to gain data in this research. The procedures was described as follow:

1. Preparing the material.

In this step, the researcher looked for the reading passages in the coursebook that the both classes used. It was arranged based on the standard competence and the basic standard used for that school and the both classes ensured that they used the same material.

2. Preparing lesson plan

In this phase, the researcher prepared lesson plan which would be applied in the implementation of this study. To prepare the lesson plan, the researcher needed to consider the instructional objective, learning material and instructional strategy to be conducted in the technique of using pictures and the technique of using guessing word from context.

First, the instructional objective was arranged in accordance to the school syllabus and curriculum standard. The researcher analyzed the curriculum framework and the school syllabus used in that school.

Second, the learning material was arranged to support the both techniques in teaching English. Group A got the treatment of using technique of Guessing Word from Context. In this group, the researcher only showed some clue to the students in order for students to imagine the meaning by themselves and the researcher had children to improve their ideas. Meanwhile group B was taught vocabulary using pictures with related the meaning of content the reading passage. The researcher retrieved the pictures from the internet that were suitable as clue on the reading passages.

Third, the researcher provided the feedback on activity on teaching vocabulary to assess their understanding and abilities and to develop their teaching English skill.

3. Conducting pre-test

    Since this study is comparative research, the researcher needed to observe student's prior knowledge before the treatment. It was done by giving pre-test at the first meeting. Pre-test was made by concerning the content validity. Content validity demands that the test should be constructed as the content representing of the course and the relationship between the test items and the course of objective is always apparent[8]. To fulfill the content validity, the content of the test should matched with the curriculum provided in the text book that is used in the school. Then, the pre-test question sheet was given to the teacher to ask for her/his approval.

4. Conducting post-test

    Post-test was given after the researcher gave the treatment. Same as the pre-test, the post-test was made by concerning the content validity. It was done to determine the result of the both techniques. The topic for the post-test questions is in accordance to the subject matter that had been implemented.

5. Analyzing data

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[8] William, Trochim "*The Research Methods Knowledge Base*, 2nd Edition (Ithaca, N.Y. : Cornell Custom Publishing, 1999).p. 67

The last phase of the research procedure in this study was analyzing data. The data was gotten from the result of test and questionnaire. The test was in the form of pre-test and post-test. It was used to answer the first research question about whether the students of SMP IPIEMS Surabaya who have been taught vocabulary using Pictures have better understanding than those who have been taught vocabulary by Guessing Word from Context. In this case, the researcher used mean value to measure and compare the difference of score between group A and group B. The second data was gotten from questionnaire. It was used to answer the second research question about what students' response toward the use of Pictures and Guessing Word from Context to increase their vocabulary. The score of students' response was calculated with the every single question and was looked for the percentage by using likert formula. The analyzing data would be described clearly in data analysis technique.

G. Data Collection Techniques

To collect the data, the researcher gave a pre-test, several treatments and post-test.

1. Pre-test

The Pre-Test was conducted to know the students' achievement in understanding of vocabulary before a treatment, the pre-test containing 35 numbered items and the test must be done in 60 minutes. The students had to do the pre-test before they got the treatment, the pre-test was aimed also to looking for the *mean* of the students before the treatment.

2. The treatment

The researcher gave 2 times treatments to the students after they did the pre-test, before they did the post-test. The treatments was done in 60 minutes for each meeting. Both classes were given treatment differently: group A using technique Guessing Word from Context and group B using technique using Pictures. However both of them were given with same topic. The treatment was given once a weeks. It is aimed to avoid students from getting bored about the treatment. at the end of the treatment, the students were given a questionnaire used to know the students response in teaching learning process.

3. Post-test

The post-test was given to the students was the same topic of the A group and the B group. The post-test would be given after the students got the treatment.

The formula used to score the test is as follows:

$$Score = \frac{N(x)}{N} \times 100$$

Where:

$N(x)$ = correct answer

N = number of items

H. Research Instrument

The instrument is a medium by which data to be collected (questionires, test, scales, observation, and/or interviews) this usually consists of the writing (or borrowing) of the test items, attitudes items, and questionnaire items. The items were reviewed by experienced practitioner in order to ensure that they are unambigious and that they would elicit the required information, the board issue of instrumentation (via both test and questionnaires)[9]. In this research, the researcher used questionnaire and test as a treatment to collect the data. Those data would measure whether the students at SMP IPIEMS Surabaya taught using Pictures have more vocabulary than those taught using Guessing Word from Context.

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[9] T . Naville Postlethwaite, 2005 *Educational Research : Some Basic Concept And Terminology*, UNESCO, Paris. France. P.36

Questionnaire is a set of written questions used to gain information from the respondents about themselves or anything related to them.[10] The researcher used to know how far the student' understanding taught using Picture and using Guessing Word from Context in increasing students' vocabulary. so the researcher knows about response of students to the lesson that used Pictures and Guessing Word from Context.

Test is an instrument or procedures that has a sequence of tasks to which a student' respond, the result are then used to form measures to define the relative value of the treit to which the test refers.[11] In this research, the researcher only gave the pre-test and the post-test to identify the improvement of the students. The pre-test was given before the technique applied in the class, it was aimed to know his students' ability before the treatment applied. The written tests consist of 35 items. The items were in the form of multiple choices with four options (20 items) and essay test (15 items), and the test was made by the researcher. According to T. Neville instrumentation should be reviewed by experienced practitioners in order to ensure that they are unambiguous, and that they will elicit the required information[12]. The post-test was given after the technique had been applied and the researcher compared both of result to know the best result from the both technique.

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[10] Ibid P.36
[11] Ibid William 5
[12] Ibid William 6

I. **Data Analysis Techniques**

In analyzing data, the researcher presented the result of the observation and the results of test during 2 meetings. The researcher analyzed everything that he observed and experienced during teaching-learning process then described them into descriptive manner. The steps of data analysis are: the result of the observation is analyzed according to the real situations and class condition during teaching-learning process, and also to know what the best technique in teaching vocabulary.

The researcher used questioner to get data to deal with personal data that was to know their response/opinion about strategies used by the teacher in learning vocabulary. After collecting the data of pre-test and post-test from group A and group B, the researcher tried to find out the differences between the pre-test and post-test of each group. In counting the mean of the students who have been taught using guessing word from context and using pictures, the researcher used this following formula:

$$M = \frac{\sum X}{N}$$

M   = Mean

$\sum x$ = Total of the students' score

N   = Total of the students

a. Pre-test and Post-test analysis

To see the effectiveness of the study, whether it affected success or not, the researcher conducted pre-test and post-test to collect data. Then, the researcher measured the score difference from pre-test and post-test of group A and group B by the statistical calculation. In this study, the researcher used Means formula to find out whether the mean differenced between them were significant or not. Means was used to increase precision of the result of the compared the difference of score A group and B group.

b. Students response analysis

Students' response questionnaire was arranged based on the Likert scale. It was assessed with the following scale[13]:

    a. Strongly Disaggre (SD) = 1

    b. Disaggre (D) = 2

    c. Neutral (N)= 3

    d. Agree (A) = 4

    e. Strongly Agree (SA) = 5

The score of students' response was calculated with the every single question and was looked for the percentage by using formula as follow:

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[13] Sugiyono, 2007, Page: 93-95

$$\% \, SRS = \frac{\sum SRS}{SRS \; maksimum} \times 100\%$$

Information:

$\sum SRS$: the total of students' response score was gotten by calculating *SRS*

SA+ *SRS* A+ *SRS* N + *SRS* D+ *SRS* SD

SRS maksimum $= \sum R \times$ the best score choice $= \sum R \times 5$

After getting precentage of every single statement. Then, students'
responses in every single statement was clasified to see the criterion by using
likert scale. It was explained as follows[14]:

Table 3.1

Criteria of students' response

Percentage	Criterion
0% - 20%	Very weak
21% - 40%	Weak
41% - 60%	Average
61% - 80%	Strong
81 – 100%	Very strong

The last step was arranging the category to clasify the general response
of student toward the students' response to the use of the techniques using

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[14] Riduwan, 2010. *Metode dan Teknik Menyusun Tesis. Bandung; alfabeta*

Pictures and Guessing Word from Context to increase their vocabulary at SMP IPIEMS Surabaya. Those are:

1. If ≥ 50% from general students' response score includes in strong or very strong category. The students' response is positive.

2. If < 50 from general students' response score includes in strong or very strong category. The students' response is negative.