

CHAPTER III

RESEARCH METHOD

A. Research Design

Research design is the way to collect data by deal with the research questions. This study uses the quantitative approach with experimental research design. According to Emzir (2012, p. 63) pointed out; the experiment study is the research method that can test hypothesis based on causal relationship (cause-effect). The writer choose experimental research design because it involves a study of the significant result systematic manipulation of one variable on another variable. In this study the researcher wanted to know the improving students through remember game.

Type of experimental research design that used was quasi- experimental research design. In quasi-experimental research design is similar to experimental research. The difference between the two is the assignment of a control group and experimental group. In this research design, an independent variable is manipulated but the participants of a group aren't randomly assigned according to Ezmir (2012,p.63)

In this study, the researchers applied quasi-experimental with non-equivalent control group design. Sugiyono (2017: 116), writes that a Nonequivalent control group design is a design that includes two groups; experimental group and control group. Both the experimental group and control group had pre-test and post-test designs. The researcher gave

different treatments to the two groups. The experimental group was treated by think-aloud strategy and the controlled group was treated by conventional reading text.

The method in research needs detail of applications. The Steps to conduct this method were planning and deciding population, sample and instrument. After wards, the application on the field by the researcher and collecting data, then. The following steps were doing validity and reliability of the instrument. After several steps, the last step needed was data analysis, which were consist of normality test, homogeneity test, hypothesis test and independent sample test. Based on the data anlysis, the conclusion of the research would be get, and the goal of this research could be achieved.

B. Population, Sampling, and Instrument

1. Population

In this study, the population of the study includes all 9 (nine) grade students in 6 (six) classes of the JuniorHigh School 1 Campurdarat there are as the population and for observation the samples are only 1 (one) class students, IX A consist of 2 (two) group namely experimented group and controlled group SMPN 1 Campurdarat.

2. Sampling

In getting sample population, the researcher use purposive sampling. The researcher use it because the students have equal ability. The first group as control group can be giving pre-test and post-test. Then the second group as experimental group can be giving pre-test, treatment and post-test. Sample is

shares or proxy from accurate population (Arikunto, 2006 : 87). While in big dictionary of Indonesian, sampel is an used by example of from the lion's share. While according to Sugiyono (2003 : 56) sampel is " some of amount and characteristic owned by population, As for becoming sampel of at this research is all student of nine grade class.

Suharsimi (2006) stated that if the subject is less than one hundred it is better to take theentire subject. Furthermore, if the subject is more than one hundred it can be taken between 10-15% or 20-25% or more that it. in this research the researcher take 34 students as the sample based on the two random classes. Seventeen (17) students is students who join who experimental group and seventeen (17) students as a control group.

3. Instrument

In any scientific research, instrument for collecting data was absolutely important. The accuracy of the result of research was mostly dependent on how accurate the use of instrument. Before research carried out, the instrument for the data collection should be well prepared.

Related to the research problems, the writer used reading test as an instrument. Ary (1979: 216) states that a test is a set of stimuli present to an individual in order to elicit responses on the basic of which a numerical score can be designed. Moreover, Heaton (1975: 89) states that the test used must be appropriate in term of our object, the dependable in the evidence provides, and applicable to our particular situation. In this case, the researcher gave the students reading test in using Think aloud strategy.

This study aimed at knowing the students achievement in Reading skill, where the students was asked to tell by using Think aloud Strategy was used to make the students achievement in reading skill (Nurgiantoro, 1995: 229)..

The measurement test was in the form of multiple choices test. The test consist of 40 items that students have to do. The material was about reading Labels and Procedure Text.

The following table is about testing specification of questions that will be conducted by the researcher:

Table 3.1 Kisi-Kisi Soal Post Test

KISI-KISI SOAL

Jenis Soal : SMP / MTs **Alokasi Waktu** : 2 x 35 menit

Pelajaran : Bahasa Inggris (Reading) **Tahun Pelajaran** : 2021 / 2022

No.	Kompetensi Inti	Kompetensi Dasar	Kelas / Smt	Materi	Indikator Soal	Bentuk Soal	No. Soal
1	3.Memahami pengetahuan (faktual, konseptual, dan prosedural) berdasarkan rasa ingin tahunya tentang ilmu pengetahuan, teknologi, seni, budaya terkait fenomena dan kejadian tampak mata	3.3 Membandingkan fungsi sosial, struktur teks, dan unsur kebahasaan beberapa teks khusus dalam bentuk label, dengan meminta dan memberi informasi terkait obat/makanan/minuman, sesuai dengan konteks penggunaannya	IX / 1	Label	Peserta didik dapat menjawab pertanyaan terkait fungsi sosial, unsur kebahasaan, serta informasi	Pilihan Ganda	1, 2, 5, 6, 11, 13, 15, 16,17, 18, 19, 20, 21, 22,

					berdasarkan teks Label		23, 24, 25
2	Mencoba, mengolah, dan menyaji dalam ranah konkret (menggunakan, mengurai, merangkai, memodifikasi, dan membuat) dan ranah abstrak (menulis, membaca, menghitung, menggambar, dan mengarang) sesuai dengan yang dipelajari di sekolah dan sumber lain yang sama dalam sudut pandang/teori	4.4 Menangkap makna secara kontekstual terkait fungsi sosial, struktur teks, dan unsur kebahasaan teks prosedur lisan dan tulis, sangat pendek dan sederhana, dalam bentuk resep dan manual	IX / 1	Label	Peserta didik dapat menjawab pertanyaan berupa angka, hitungan, analisa berdasarkan teks Label	Pilihan Ganda	3, 4, 7, 8, 9, 10, 12, 14
3	Memahami pengetahuan (faktual, konseptual, dan prosedural) berdasarkan rasa ingin tahunya tentang ilmu pengetahuan, teknologi, seni, budaya terkait fenomena dan kejadian tampak mata	3.4 Membandingkan fungsi sosial, struktur teks, dan unsur kebahasaan beberapa teks prosedur lisan dan tulis dengan memberi dan meminta informasi terkaitresep makanan/minuman dan manual, pendek dan sederhana, sesuai dengan konteks penggunaannya	IX / 1	Procedure Text	Peserta didik dapat menjawab pertanyaan terkait fungsi sosial, unsur kebahasaan, serta informasi berdasarkan teks Prosedur	Pilihan Ganda	26, 29, 30, 31, 37, 39

4	Mencoba, mengolah, dan menyaji dalam ranah konkret (menggunakan, mengurai, merangkai, memodifikasi, dan membuat) dan ranah abstrak (menulis, membaca, menghitung, menggambar, dan mengarang) sesuai dengan yang dipelajari di sekolah dan sumber lain yang sama dalam sudut pandang/teori	4.4 Menangkap makna secara kontekstual terkait fungsi sosial, struktur teks, dan unsur kebahasaan teks <i>prosedur</i> lisan dan tulis, sangat pendek dan sederhana, dalam bentuk resep dan manual	IX / 1	Procedure Text	Peserta didik dapat menjawab pertanyaan tentang analisa, menghitung, mengurai langkah kerja, dan membaca terkait teks Prosedur	Pilihan Ganda	27, 28, 32, 33, 34, 35, 36, 38, 40
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C. Method in Collecting Data

The method of collecting data for this research used testing. A test was a group of questions, tasks or exercises for measuring individual or groups skill. The contents or the reading task include factual question, determining a title and determining the main idea.

In conducting this research, the procedure of data analysis would be collected from result pre-test, treatment, and post-test result. After collecting the data, the researcher did some steps in analyzing the data. After the researcher collecting the data, the data from all test from this research was setting up in the frequency distribution which is analyzed by mean. Its statistic

formula, suggested by Hady (2003, p. 272). This is the classification of minimum completeness of the data and also the mean:

Table 3.2 Score Criteria

Score	Value	Category
90-100		Excellent
80-89		Very good
65-79		Good
55-64		Enough
0-54		Bad

This research will be conducted at the ninth grade students of Junior High School 1 Campurdarat. Moreover after the researcher giving treatment to the student in several meeting, the researcher will collect all the data needed from the result of pre-test and post-test. First of all the writer will be analyzing the first meeting and then following material and its test. The last one is post-test.

In analyzing conducting learning, the researcher will find the equivalent score. In this event, the both of class, experiment group and control group have the students score in equivalent term.

D. Validity and Reliability

There are two aspect that will be measured is Validity and Reliability.

1. Validity

Validity refers to the degree to which a study accurately reflects or assesses the specific concept that the researcher is attempting to measure. This study investigated the validity of various approaches to measurement of component skill.

a. Content Validity

To build content validity, the researcher conducted testing in the form of 20 items of multiple choices. In this case, the students assigned to read a text and answer questions. Then, the researcher gives score and analyzes the obtain data to check the instrument reliability.

b. Construct Validity

If a test has construct validity, it is capable of measuring certain specific characteristic in accordance with a theory of language behavior and learning. Construct validity refers to the practical test developed from a theory.

The test would be called valid if each number that built the test consist of measuring every aspect of thinking as stated in the specific instructional objectives. In other words, if the item measuring the thinking aspect are accordance with the thinking aspect which is the instructional goal.

According to Andre A.Rupp (2006), multiple choice test questions, also known as items, can be an effective and efficient way to assess learning outcomes. Multiple choice test items can be used to test factual recall, levels of understanding, and ability to apply learning (analyzing and evaluating). Multiple choice tests can also provide an excellent pre-assessment indicator of student knowledge as well as a source for a post-test discussion. Wisely constructed and utilized, multiple choice questions will make stronger and more accurate assessments. Moreover, the construct of reading comprehension is assessment specific and is fundamentally determined through item design and text selection. Based on the Andre's statement, multiple choice is suitable to assessing reading of students. Multiple choice is also a common way to measure students' understanding in reading.

2. Reliability

Reliability refers to the consistency of test score. It means how consistent test scores or other evaluation results are from one measurement to another. The test said to be reliable or reliable if a student's answer to the question is consistent or stable from time to time. The reliability of a test refers to the degree of stability, consistency, predictability, and accuracy. Measurements that have high reliability are measurements that can produce reliable data.

The steps in determining the reliability of the test were:

- a) Making tabulating of tester's scores.

- b) Measuring the mean of the testers' scores
- c) Measuring the total variant
- d) Calculating the instrument reliability by using KR-21
- e) The last decision is comparing the value of r_{11} and T_{table}
- f) To know the level of reliability of instrument, the value of r_{11} was interpreted based on the qualification of reliability as follow:

$r_{11} > T_{table} = \text{Reliable}$

$r_{11} < T_{table} = \text{Not Reliable}$

Criteria of Reliability

Reliability	Interpretation
0.800- 1.000	Very High Reliability
0.600-0.799	High Reliability
0.400-0.599	Fair Reliability
0.200-0.399	Poor Reliability
0.000-.0199	Very Poor Reliability

Table 3.3.1.3 Result of Reliability Testing

Reliability Statistics

Cronbach's Alpha	Part 1	Value	.429
		N of Items	4 ^a
	Part 2	Value	.457
		N of Items	4 ^b
	Total N of Items		8
Correlation Between Forms			.470
Spearman-Brown Coefficient	Equal Length		.640
	Unequal Length		.640
Guttman Split-Half Coefficient			.640

- a. The items are: Item3, Item4, Item6, Item8.
- b. The items are: Item12, Item14, Item17, Item19.

According to the table above, the number of reliable is 0.640 it means that the test is reliable because of $r_{11} > T_{table}$, $0.64 > 0.600$. The number r_{11} result represent of stability, consistency, predictability, and accuracy.

E. Method of Data Analysis

This study is experimental study that investigates improving students' reading ability through think-aloud in ninth graders at Junior High School 1 Campurdarat. Thus, the purpose of this study is to know whether the think-aloud strategy give the significant result on the students' listening ability or not. Then the method analyze the data in study is by using calculating data in SPSS using statistical formula.

Data of the study were collected by firstly giving the same pre-test to both groups (experimental group and control group) before conducting the treatment. As the treatment was conducted, a post-test was subsequently administered to both groups. Data collected were then analyzed by using SPSS 20 and used t-test to compute the data derived from two samples. In identifying whether (H_0) there is no significant difference score on students' achievement in reading skills taught using thinking aloud strategy., the researchers compared the result of the t- test with t-table. If the $t\text{-test} \geq t\text{-table}$, the alternative

hypothesis (H_a) would be accepted which means on students' achievement in reading skills taught using thinking aloud strategy. If the $t\text{-test} \leq t\text{-table}$, the null hypothesis would be accepted which means that applying think-aloud strategy did not give a significant effect on the students' reading comprehension performance.