

CHAPTER III

RESEARCH METHOD

In this chapter, the researcher presents some points related to this research including research design, population, sample and sampling, research variable, research instrument, validity and reability testing, data and data source, data collecting method, hypotheses testing, data analysis.

A. Research Design

Research design is a way to conduct something that aims to guide the researcher. Thus, the researcher have to folllow the procedur of the research design systematically to get the data. This research uses the experimental design which belongs to quantitative approach. This research uses pre-experimental design with one group pre-test and post-test. The reason of the researcher uses pre-experimental design is because the researcher cannot determine the homogeneity of students' reading ability at MTs Mujahidin Ngadiluwih Kediri. Therefore, this research does not have random subjects' assignment to group or other strategy to control extraneous variable (Ary, 2010:203-204). Therefore, the researcher takes one group or class to use pre-test and post-test design to know the result of treatment by comparing the students' score of pre-test and post-test.

Pre-experimental has two variables which consists of independent variable and dependent variable. Independent variable (X) is a condition

which influences other variable. Whereas, dependent variable (Y) is a condition which is influenced by experimental. Pre-test is dependent variable before getting manipulation of the independent variable (before giving a treatment) and after getting manipulation of the independent variable (after giving a treatment) is called post-test (Donald:2010). The illustration of the research design as follows:

Table 3.1 the design of one group pre-test and one group post-test

Pre-test	Independent	Post-test
Y1	X	Y2

Explanation:

X : Chunking a text strategy based reading treatment.

Y1 : Students' achievement on reading comprehension before taught by using Chunking a text strategy.

Y2 : Students' achievement on reading comprehension after taught by using Chunking a text strategy.

The procedures of experimental research that use one group pre-test and post-test designs:

1. Administering a pre-test to measure reading comprehension of second grade of MTs Mujahidin Ngadiluwih Kediri.

2. Applying the experimental treatment in teaching reading by using chunking a text as a strategy to the subject of second grade of MTs Mujahidin Ngadiluwih Kediri.
3. Administering a post-test to measure reading comprehension of second grade of MTs Mujahidin Ngadiluwih Kediri.

This research intended to investigate the effectiveness of using chunking a text strategy in teaching reading comprehension at MTs Mujahidin Ngadiluwih Kediri. The aim of using a treatment is to prove whether the improved score possibly got by the researcher. Afterwards, the effectiveness of that treatment is known after the researcher check the significant score by giving students chunking a text strategy in reading comprehension.

B. Population, Sample, and Sampling

1. Population

Population is defined as all of subjects of any well-defines class of people, objects, or events in which stay in research area before the researcher find the interesting subjects. According Cresswell (2012:142), population is all members who have same characteristic. While, according to Arikunto (2013:173), population is the whole subjects of research. It can be conclude that population is all subjects the researcher used in a research.

Therefore, the population of this research is the whole of the second grade students of MTs Mujahidin Ngadiluwih Kediri in the academic year 2018/2019 that consist of three classes (A, B, and, C class). The total population of the second grade consists of 90 students.

Table 3.2 List of population

Class	Total
VIII A	29
VII B	30
VII C	31

2. Sample

Sample is a part of population that researcher taken to be analyzed. Sample is needed when the population of a quantitative research is very large. According to Ary (2010:649), sample is a selected portion of participants or subjects that is chosen for being observed in a research. In this case, the sample of this research is using purposive sampling as a technique to get the subjects. The sample of this research is students at eight B class that consist of 30 students where they are 14 male and 16 female at MTs Mujahidin Ngadiluwih Kediri in academic year 2018/2019

3. Sampling

Sampling is a process selecting subjects from population. According to Frankel and Wallen (2009:90), sampling is a process of selecting sample who will participate in this research. In this research, the

researcher used purposive sampling technique. According to Arikunto (2006), purposive sampling is a technique of taking samples which is not based on random, strata, region, but on their characteristics.

In this research, the researcher chooses B class because of teacher's suggestion. According to the teacher, B class students are active students and it will be good to give treatment for them.

C. Research Variable

A variable is one of key terms that focus on any research. Arikunto (2013:161) stated that variable is research subject or as to focuses some research. Then, the researcher has two kinds of variable, they are:

1. Independent variable

Independent variable is the one affecting another variable. Independent variable can exist and appear by itself without any support. Meanwhile, it influences another effects. In this study, independent variable is chunking a text strategy (X) to teach reading comprehension. Chunking a text has five steps including preparation, review reading strategies, chunk the text, paraphrase meaning, assessment and sharing. This chunk has syntactic category in phrase structure grammar like noun phrase, adjective phrase, adverbial phrase, verb phrase, gerund phrase, to infinitive phrase, participle phrase, and prepositional phrase.

2. Dependent variable

Dependent variable is the one affected by another variable. This variable is not manipulated by researcher, but it is affected by independent variable. In this study, dependent variable is students' achievement in reading comprehension.

D. Research Instrument

An instrument is a tool where the researcher used to collect the data. According to Frenkel (2012:111), instrument is the device such as: pencil-and-paper test, a questionnaire to collect the data. The requirement of instrument is valid and reliable. An instrument is called valid if it measure what to be measured. To collect the data, the researcher uses pre-test and post-test for the students. The researcher uses achievement test where in the form of objective test is multiple choice that consist of 20 questions. The researcher uses multiple choice in recount text to measure students' understanding in reading comprehension (KD 3.11 in curriculum K13). The score of multiple choice is only one correct answer for each items. The score for each item is 5 point. The students would get 100 if they get all correct answer. The test item of pre-test and post-test can be seen in appendix.

E. Validity and Reliability Testing

The data are correct or not depend on the instrument of collecting method. In this research, the researcher uses validity and reliability to check the researcher's instrument as follows:

1. Validity

The good instrument should be valid and reliable. Validity is important to consider when the researcher prepare and select an instrument for use. According to Heaton (1989:159), validity of test as extent to which it measures what is supposed to be measured.

a. Content validity

Content validity is only representative or not all subject to be measured. It is the degree to which a test measures an intended content area (Gay, 1992:156). So, content validity is when the researcher creates a test for the subjects in order to judge whether or not the test has content validity. In this research, the researcher uses content validity because the result of test can be representative of the students for entire course material that has been taught. In this research, the test has content validity because this test based on the course objectives in the syllabus of second grade and based on the blueprint of research. The content validity in this research can be shown as below:

Table 3.3 Content Validity

Competence	Indicator	Test item	
		Pre-Test	Post-Test
3.11 Menerapkan struktur teks dan unsur kebahasaan untuk melaksanakan fungsi sosial teks recount dengan menyatakan dan menanyakan tentang kegiatan, kejadian, dan peristiwa, pendek dan sederhana, sesuai dengan konteks penggunaannya	Students are able to: (Literal (message extraction)) • Identify meaning of word/ phrase/ sentence, antonym, synonym, refers word	14, 17	11, 19
	Students are able to: (Inferential) • Identify the information of the text	3, 8, 11, 12, 18, 19	6, 8, 12, 13, 17, 18
	• Determine the purpose of text, the structure of text	1, 2	2, 16
	• Interpret main idea, title	6, 7	1, 3
	• Interpret true or false passages	5, 9	4, 10
	• Interpret cause-effect	4, 13	7, 9
	Students are able to: (Critical Creative) • Identify the moral of the story/lesson	10, 16	5, 15
	• Make conclusion	15	20
	• Give solution	20	14

b. Face validity

A test is said to have face validity if it looks as if it measures what is supposed to measure. According to Ary (2010:228), face validity refers to which examines believe the instrument is measuring

what it is supposed to measure. A test which does not have face validity may not be accepted by test-takers, teachers, employers.

In this research, the researcher designs the test to measure students' reading comprehension in recount text by consulting with the English teacher of MTs Mujahidin Ngadiluwih Kediri. the researcher ask the teacher's opinion about the test question is appropriate for students or not. This multiple choices test also has been validated by the researcher's advisor.

2. Reliability

Reability is consistent and dependable. According to Ary (2002:250), reability is concerned with the effect of such random errors of measurement on the consistency of scores. The researcher uses reliability to measure the consistency, accuracy, dependability of scores from resulting the try-out of pre-test. In this research, the researcher uses *Pearson Product-Moment* in IBM SPSS 21.0 for windows to know the reliability of instrument.

The result of reliability testing by using IBM SPSS 21.0 can be seen from the table:

Table 3.4 Result of Reliability Pre-test

Correlations			
		rater1	rater2
rater1	Pearson Correlation	1	,852**
	Sig. (2-tailed)		,000
	N	31	31
rater2	Pearson Correlation	,852**	1
	Sig. (2-tailed)	,000	
	N	31	31

** . Correlation is significant at the 0.01 level (2-tailed).

From the computation in SPSS, the reliability value of try-out 1 was 0.852. It means that the instrument was strong positive correlation. Thus, it can be concluded that the that the instrument was reliable.

F. Data and Data Source

Data source is a subject where the data can be taken (Arikunto 2013:161). Meanwhile, according to Frenkel and Wellen, 2005: 112), data source is kinds of information that the researchers obtain on the subjects of their research.

Data in this research is quantitative Data. The data took from the primary data source. Primary data is data source which the researcher can collect the data directly. According to Ary (1985), primary data is the data which are collected directly from sample. In this study, the primary data is

students' score in administering pretest and post-test from the sample of the study.

G. Data Collection Method

Data collection method is all process to collect the data. According to Tanzeh (2011:57), data collection method is a standard procedure systematically that is used to collect the data. In this research, the data is collected by administering pre-test and post-test. The schedule of the research will be shown as follows:

Table 3.5 The schedule of the research

NO.	Date and time	Activity
1.	February 11 th , 2019	Try out pre-test
2.	February 13 th , 2019	Pre-test
3.	February 19 th , 2019	Treatment 1
4.	February 20 th , 2019	Treatment 2
5.	February 26 th , 2019	Treatment 3
6.	February 27 th , 2019	Post-test

The result of pre-test and post-test will be compared by using IBM SPS 6.0 to know the effectiveness. The procedure of collecting data can be shown as:

1. Pre-test

Pre-test divides a measure on the students' skill before they receive a treatment. This pre-test is to know the students' reading comprehension before the researcher conducts a treatment. There were

20 items of multiple choices questions of recount text. The score per item was 5 for correct answer. The students would get 100 if they get all correct answer. The result of this test becomes the evaluation before doing a treatment by using chunking a text strategy.

2. Post-test

Post-test is done after the researcher gives the students a treatment by using chunking a text strategy in reading comprehension. This post-test has similarities with pre-test, they are: also contained of 20 items of multiple choices questions of recount text. The score per item was 5 for correct answer. The students would get 100 if they get all correct answer. The result of this test then is compared with pre-test to know how far the effectiveness of using chunking a text strategy in teaching reading comprehension in recount text.

H. Hypotheses Testing

Hypothesis testing is obtained from comparing two means of before and after giving treatment. Banaves and Cputi (2001:40) state that the way to test whether the null hypothesis (H_0) can be rejected or not is by comparing T-value which should be less than significant level 0.05. The hypothesis testing of this study can be seen as follows:

1. If the significant value is bigger than level of significant (0.05), the alternative hypothesis (H_a) is rejected and the null hypothesis (H_0) is not rejected. It means that there is no significant different score on

students' reading comprehension before and after being taught by using chunking a text strategy.

2. If the significant value is smaller than level of significant (0.05), the alternative hypothesis (H_a) is not rejected and the null hypothesis (H_o) is rejected. It means that there is significant different score on students' reading comprehension before and after being taught by using chunking a text strategy.

I. Data Analysis

After collecting the data of the pre-test and post-test score, the researcher will analyze the data by statistical computation. The researcher would to know the significant different on the students' score before and after taught chunking a text strategy. The researcher uses IBM SPSS statistics 16.0 for windows to analyze paired-sample T-test.

There are some steps to analyze the data in SPSS. Firstly, the researcher input the data in SPSS to know the frequency of pre-test and post-test. The researcher finds the mean, median, mode, and standard deviation by using this application. Then, from comparing the data, the researcher knows the pair sample statistics and finally the researcher finds pair sample correlation from two-tail. After knowing the result of two-tail, the researcher gives the result whether or not the treatment by using chunking a text strategy in students' reading comprehension in recount text is effective or not.