

## **CHAPTER III**

### **RESEARCH METHOD**

This chapter presents the research method. It focuses the method used in conducting this study which covers (a) Research Design, (b) Population, Sample and Sampling, (c) Research Instrument, (d) Validity and Reliability Testing, (e) Normality and Homogeneity Testing, (f) Data Collection Method and (g) Data Analysis.

#### **A. Research Design**

Before conducting the research, the researcher need to arrange the research design. According to Burns and Grove (1997:225), the design of a study is the end result of a series of decisions made by the researcher concerning how the study will be conducted. The design is closely associated with the framework of the study and guides planning for implementing the study. It means that, the research design is kind of a tool or plan to conduct the research and how the research will be organize to get the data.

In this research the researcher use the experimental design using “one group pre-test and post-test design”. It means that the sample is chosen from one group or one class and they assigned using pretest and post-test. This design includes a pre-test measure followed by a treatment

and a post test for a single group. According to John W. Creswell (2009:160) it can be described as following table:

**Table 3.1 Pre-test--Post-test design**

Pre-test	Treatment	Post-test
$O_1$	→ X	→ $O_2$

Where:

$O_1$  = The students pre-test

X = Treatment by using diary

$O_2$  = The students post-test

## **B. Population and sample**

### **1. Population**

Before conducting the research, the researcher decided the population. According to Ary et al (2002:163), population is the larger group about which the generalization is made. A population is defined as all members of any well-defined class of people, events, or objects. According to Arikunto (2006), “population is the whole research subject”. Population is all the data that is to be the center of the attention of the

researcher in scope and time specified (Margono,2006). It can be concluded that population is a group of individuals or subject that share one or more characteristics from which data can be gathered and analyzed by the researcher.

The population in this study was the whole tenth grade students in Senior High School in MAN Trenggalek, which is enlisted in the academic year of 2015/2016. The tenth grades belong of eleven classes which each classes consists about 30-36 students. They are 6 MIA 1-8, 6 MIA 1-3, and 6 IIK 2. The total number of population is about 396 students. From this following table can be seen the division of the tenth grade population in MAN Trenggalek :

**Table 3.2 The Number of Tenth Grade in MAN Trenggalek**

No	Class	Male	Female	Total
1	6 MIA 1	17	14	31
2	6 MIA 2	17	16	33
3	6 MIA 3	16	17	33
4	6 MIA 4	14	19	33
5	6 MIA 5	18	16	34
6	6 MIA 6	16	19	35
7	6 MIA 7	16	18	34
8	6 MIA 8	15	17	32
9	6 IIS 1	12	20	32
10	6 IIS 2	16	18	34
11	6 IIS 3	16	20	36
12	6 IIK 2	16	17	33
Total of Population X Class				396

## **2. Sample and Sampling**

Sample is the smaller group or subset of population. According to Ary et al (2002:163), sample is the small group that is observed. The sample which is taken must describe the condition of the population (Arikunto, 2010:174). In this research, the subject of the study was taken from the Tenth Grade of the students in MAN Trenggalek in academic year 2015/2016. The writer choose 6 IIK - 2 class as the sample of the study. It consists of 33 students with 16 male and 17 female students.

Sampling technique is a technique used to take sample. This research utilized purposive sampling. The researcher used purposive sampling because the class that would be used as a sample was active class. The students in this class was active and have the average ability. Besides that, this class was recommended by the teacher. So, based on those consideration, from the 396 students as population, the writer took the class of 6 IIK 2 as a sample of the study with 33 of students in that class.

## **C. Research Instrument**

Instrument is used to collect data in research. According to Arikunto (2010:192), there are many kinds of instruments such as test,

questionnaire, interview, observation, rating scale, and documentation. In this research, the data were collected by giving a test. Brown (2000:384) states that a test, in plain work, is a method of measuring a person's ability or knowledge in a given domain. From a test, the teacher will get quantitative score which can be analyzed by the tester. The best way of test people's writing ability is to get them to write directly. So, the researcher used written test in term to measure the student's ability in writing recount text before and after the treatments.

In collecting the required data, the researcher used two kinds of test, they are pre-test and post-test. The pre-test administered before the implementation of the diary strategy to find out the student's proficiency in writing recount text, whereas the post-test was done, after the treatment by implementing the diary strategy in writing recount text. The topic in pre-test was about the student's activity in their Sunday. And, the topic in post-test was about students' nicest holiday. Then the result of the writing sheet was scored by considering the scoring guidelines of writing.

To acquire valid score that defines students' writing ability, it needs clear criteria to assess their work. To qualify this needed, the writer modified the rubric by Brown. The scale of numbers to evaluate students' writing works are follows: content, vocabulary, generic structure and language features. The point of each criterion was in range 1 up 5. Then after collecting the students' writing sheets, then the writer calculated them based on the following scoring guidelines:

**Table 3.3 Scoring Guidelines Aspects of Writing by Brown**

<b>Element</b>	<b>Level</b>	<b>Criteria</b>
Content (40)	1 (1-8)	The content is not indeed relevant with the topic at all.
	2 (8-16)	There are many confusing things so that the meaning cannot be easily comprehended.
	3 (16-24)	The contents that is not relevant still exists but it is understandable meaning and it is not too bad.
	4 (24-32)	There are several words that is not relevant but does not influence the intended meaning much.
	5 (32-40)	The topic and the content are very relevant.
Vocabulary (30)	1 (1-6)	Poor and irrelevant words; they do not fit the sentences meaning related to the topic and the situation given.
	2 (6-12)	There are still lots of words used in appropriately.
	3 (12-18)	The word have already been related with the topic and situation; however, they do not have any variation yet
	4 (18-24)	The words are generally relevant with the situation and have enough variation, but sometime there are inappropriate words, which do not change the meaning of the sentence.
	5 (24-30)	The words are used selected and have variations; they are relevant with the situation and condition so the meaning makes sense
Generic Structure (15)	1 (1-3)	The generic structure of the content is very bad and it often does not consist of identification
	2 (3-6)	There are many disorderliness are found in the content of the writing, but don't make the readers confused yet.
	3 (6-9)	The generic structure of their writing is neither not too good nor too bad.
	4 (9-12)	The generic structure of their writing is good or not, but this not too actually principle.
	5 (12-15)	Every part of writing is in good order, either in identification

Language Feature (15)	1 (1-3)	There are many irrelevant uses of descriptive language, many errors in using verbs, tenses or linking verbs.
	2 (3-6)	There are some irrelevant uses of descriptive language, some errors in using verbs, tenses or linking verbs.
	3 (6-9)	There are little bit irrelevant but do not change the whole meaning. Generally it still accepted.
	4 (9-12)	Generally accurate, the use of verbs, tenses or linking verbs.
	5 (12-15)	No errors on the use of verbs, tenses or linking verbs.

## D. Validity and Reliability Testing

### 1. Validity

To get a good data, the instrument of the research should have its validity. By far the most complex criterion of a good test is validity, the degree to which the test actually measures what it is intended to measure. (Brown (2000:387)). A valid test must be able to represent the actual competence of the students in writing ability. There are four types of validity: content validity, criterion-related validity, construct validity, and face validity. In this research, content validity, face validity and construct validity was utilized.

#### a. Content validity

A test said to have content ability if its contents constitutes a representative sample of the language skills, structures, etc. being tested. It means that, the content validity of the instrument can be said good if the items really measure the intended material, topic,

or subject which tester wants to test. In this research, the researcher wanted to measure the students' mastery in writing ability recount text. It means the topic that is supposed to be measured is about recount text.

The content validity was used in this study. The instrument was relevance to curriculum which applied at school. At MAN Trenggalek used Curriculum 13, and one of the material that taught in tenth grade was writing recount text. Therefore before the instrument was tried out to students, first it was consulted to the expert judgment. They are the supervisor and the English teacher. In pre-test and post-test, the students are supposed to write a recount text in terms of their holiday experience. The students should describe their holiday experience clearly. Here are the blue print of testing items:

**Table 3.4 Pre-test Blue Print and Corresponding Items**

Core Competence	Basic competence	Indicator	Test Format	Testing Item
4.Processing, reasoning, and represent in the realm of the concrete and the abstract realm associated with the development	4.14 text compose and write simple oral recount about to meet an idol and a diary with due regard to the purpose,	learners are able to compose texts recount write simple diary to implement communication transactional	Written Test	Yesterday was Sunday, you got free day. Write your yesterday activities in the form of

of the learned in school independently, and able to use the method according to the rules of science.	the structure of the text, and linguistic elements, correctly and in accordance with the context.	and functional with teachers and friends, using the expression with the structure of the text that is coherent, elements of linguistic correctly and in context, to be honest, disciplined, confident, responsible, caring, cooperation, and peace.		recount text. state the generic structure of recount text, consist of : title, orientation, events , and reorientation.
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#### b. Construct validity

According to Brown (2004:25) a construct is any theory, hypotheses, or model that attempts to explain observed phenomena in our universe of perception. The word construct refers to any underlying ability which is hypothesized in a theory of language ability. It means that, a test is said to have construct validity if it can be demonstrated that it measures just the ability which is supposed to measure. In this research, the researcher administered the test in the form of written test that supposed the students to write recount text based on their holiday experiences. This kind of test have construct validity because it demonstrate just the ability

which is supposed to measure, that is writing directly in terms of writing recount text.

c. Face validity

Face validity is the way of a test looks to examiner, examinees, and administrator. It means that the test should look clean, clear, and neat so it doesn't look as a silly test. The face validity of instrument of the research could be said good if it basically refers to the degree to which the test appears to measure what it purposes to measure. In this case, the appearance of the instrument should describe that it is an absolute construction test, so that the students are able to understand what kind of answer they should give in which answer is the same as the tester meant to get. In this research, for the sake of the face validity of the test, the items were arranged cleanly, clearly, neatly and get the standard, so the test was not arouse ambiguities for the students as well as the researcher in administering it. Based on the result of the tryout, it can show that almost of the students can understand the writing test instruction and they can writing based on the instruction. The result of students' try out sheet can be seen in the appendic.

2. Reliability

Reliability is the stability or consistency of the test score or other evaluation result from one measurement to another. Test is called

reliable when a student's score on it compared to score of his classmates is similar to another test in the same information. In this research, the writer use inter rater reliability to get reliability coefficient. In this, the subject take the test in the usual way, but the result of the test was scored by two scorers or two raters. Then, the two sets of scores gotten from the two raters are calculated to get the correlation coefficient. Finally, SPSS 16.0 for windows program is used to compute the reliability of instruments. Table 3.4 Show the result of tryout:

**Table 3.5 The Statistical Correlation of *Pearson Product Moment* from IBM SPSS Statistical 16.0**

Correlations		rater1	rater2
rater1	Pearson Correlation	1	.879**
	Sig. (2-tailed)		.001
	N	10	10
rater2	Pearson Correlation	.879**	1
	Sig. (2-tailed)	.001	
	N	10	10

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

Table 3.5 showed that Pearson Correlation of both rater 1 and 2 were 0.879. in this case, if the Pearson Correlation was closer to +1, it

can be said has strong correlation, but if the Pearson Correlation was closer to -1, it can be said has not strong correlation. In the table, the result of Pearson Correlation was closer to +1, so the data had strong reliability. It can be concluded that it was reliable.

## E. Normality Testing

### 1. Normally Distribution Test

One Sample Kolmogorov-Sminov test in SPSS version 16.0 was used to analyze the normal distribution. It was aimed to finding out whether or not the distributions of pretest and posttest score in the group were normally distributed. According to , the data can be said had normality distribution, if the probability  $> 0.05$ , but if the data had not normality distribution, the probability  $< 0.05$ .

Here the result of normality distribution testing:

**Table 3.6 One Sample Kolmogorov-Sminov Test**

One-Sample Kolmogorov-Smirnov Test		
		Unstandardized Residual
N		33
Normal Parameters <sup>a</sup>	Mean	.0000000
	Std. Deviation	3.60069003
Most Extreme Differences	Absolute	.161
	Positive	.147

	Negative	-.161
Kolmogorov-Smirnov Z		.924
Asymp. Sig. (2-tailed)		.360
a. Test distribution is Normal.		

Based on the table 3.5, the significant 2 tailed was 0.360. It means that the probability was more than 0.05. So, based on the result of Formula Kolmogorov Smirnov, the data had normal distribution.

## F. Data Collection Method

Data is information that has been collected by conducting the research. To get the reliable data, the researcher has to do some techniques for collecting those data. Data collection method is an important step in research, because the aim of the research is to get the data. Collecting data can be done in any settings, any sources, and any ways. In this research, the researcher used test to collect the data. Test is the most important instrument to collect the data. It is used to know the influence of diary toward the students writing ability in recount text.

The research was conducted from April 11<sup>th</sup> 2016 to May 04<sup>th</sup> 2016. The researcher arranged some procedures to make the study well organized. The steps of conducting research were as follow. First was a plan for doing pre-test, post-test, and lesson plan. Second was trying out the instrument to test the validity and reliability. Third was giving the pre-test. Fourth was giving the sample treatment, teaching them writing recount text by using diary strategy for. The last was giving post-test to

students' whether the students' got different result or not. This research would be organized as follow:

**Table 3.7 Schedule of the Study**

No	Date	Material
<p>Monday, 11<sup>th</sup> April 2016</p> <p>The pilot test was administered to the class outside the sample of the group (6 MIA 5-2)</p>		
1	Tuesday, 12 <sup>th</sup> April 2016	<p>Pre-Test</p> <p>Teacher activity : giving a pre-test to the students about their last Sunday activity.</p> <p>Students activity : doing a pre-test</p>
2	Wednesday, April 13 <sup>th</sup> 2016	<p>Treatment 1</p> <p>Topic: Introduction to diary strategy and its relation to the recount text</p> <p>Teacher activity :</p> <ol style="list-style-type: none"> <li>Explain to the students about the use of diary and its relation to the recount text.</li> <li>Explain how to make outline before writing</li> </ol> <p>Students activity :</p> <ol style="list-style-type: none"> <li>listen to the teacher explanation, and asking about their difficulty.</li> <li>Writing their activity from</li> </ol>

		<p>their went to school until their went home from school.</p>
3	Wednesday, April 20 <sup>th</sup> 2016	<p>Treatment 2</p> <p>Topic: write your activity in the weekend in last week.</p> <p>Teacher activity :</p> <ul style="list-style-type: none"> <li>a. Guide the students to write diary.</li> </ul> <p>Students activity :</p> <ul style="list-style-type: none"> <li>a. Start to write their activity in weekend day last week.</li> </ul>
4	Wednesday, April 27 <sup>th</sup> 2016	<p>Treatment 3</p> <p>Topic: write your embarrassed experience</p> <p>Teacher activity :</p> <ul style="list-style-type: none"> <li>a. Guide the students and give feedback or revise to the students sheet in treatment 1.</li> </ul> <p>Students activity :</p> <ul style="list-style-type: none"> <li>a. writing their embarrassed experience</li> </ul>
6	Wednesday, May 04 <sup>th</sup> 2016	<p>Post-test</p> <p>Teacher activity :</p> <ul style="list-style-type: none"> <li>a. Giving a post test to the students about their nicest holiday.</li> </ul> <p>Students activity :</p> <ul style="list-style-type: none"> <li>a. Doing a post-test.</li> </ul>

Pilot test is selecting a good item to measure validity and reliability of the instrument before it was used in the study. There were three kinds of validity and reliability which were used in this study, they were face, construct and content validity. To test those kinds of validity and reliability, pilot test was administered to 10 students excluding the sample of group. It was also conducted on Monday, 11<sup>th</sup> April 2016.

As mentioned before, the pre-test is administered by using written test. After calculating the result of pilot test and finding validity and reliability of the instrument, the pre-test was conducted on Tuesday, 12<sup>th</sup> 2016. The item of test was taken based on the syllabus of Senior High School for the tenth grade. There are some considerations in formulating the items of test. The first is the relevancy to the purpose of the study and the second is the relevancy of the items to the curriculum of the study. The result of the pre-test then calculated by analytical scoring guidelines in the analyzing data technique.

After performing the pre-test, the next step is giving treatment to the class. The treatments were conducted three meetings for the group in which meeting lasted for 3x45 minutes. A schedule of treatments is arranged to make well-established treatments.

The first meeting of this study, the writer introduced the diary strategy in further to apply in writing recount text. The writer also explained how to make an outline in order to compose the kind of

paragraphs recount text. Students were given simple topic that related to the recount text then made into an outline and composed them into recount text. There were still many students confused in creating their diary because it was the first experience using introduction to diary strategy and its relation to the recount text. After explained it, the writer gave the topic to the students to learn writing recount text with the diary strategy. The topic was about describing activity. The students had to write activity their activity from their went to school until went home.

The second meeting was carried out on Wednesday, April 20<sup>th</sup> 2016. This second meeting was focused on write activity on the weekend. The writer guided the students and giving revise based on the students writing.

The third meeting was conducted on Wednesday, April 27<sup>th</sup> 2016. In this activity, teaching writing recount text became more joyful. Many students created creative diary which focused on their embarrassed experience. This was the last meeting before the post-test was given in which the teacher reviewed the whole three meetings before.

The post-test is held after giving treatment to the students in the class. The score of post-test will be as a final comparison to determine any significant influences before and after treatment by using diary strategy in writing recount text. The scores are taken based on some criteria. They are content, vocabulary, generic structure and language features. Post-test was conducted on Wednesday, May 04<sup>th</sup> 2016. The text in post-test was the

same as the pre-test and post-test was conducted to measure the students' writing skill after the treatments.

## **G. Data Analysis**

After collecting the data from the samples, data analysis is conducted which is using through quantitative analysis to get the score. The data collected by the means of the test instrument was analyzed differently based on specific purposes. In this case, there were three kinds of analyses was carried out. First was test instrument analysis. It was used to know the validity and reliability of the instrument. Second was pre-test and post-test analysis which used to measure the normality distribution.

As the study would examine hypotheses, the researcher would firstly determine the level of significance of  $\alpha = 0,05$ . It means that if the probability is smaller than 0,05 ( $p < 0,05$ ), the alternative hypotheses are accepted.

The alternative way of decision making was comparing the value t-test with the t-table. If the t-test value is larger than the the t-table, the null hypotheses are rejected and if the t-test value is smaller than the t-table, the null hypotheses are accepted. The paired sample t-test in SPSS (Statistical Program for Social Science Statistics) version 16.0 for windows was performed to find out the significant difference between pretest (before doing treatment) and posttest (after doing treatment).

