

CHAPTER III

RESEARCH METHOD

This chapter presented and discussed method of the research which consists of place and time of the study, research design, variable, population, sampling, sample, data sources, research instrument, validity and reliability testing, normality and homogeneity testing, data collecting method, data analysis, and hypothesis testing.

A. Research Design

As stated previously, the research was intended to find out if there is any significant effect on writing skill of the tenth grade students at MAN 1 Trenggalek taught by using Task Based Learning (TBL) method in groupworks. This research was conducted by applying quasi-experimental design that would be researched in order to test and prove a hypothesis by giving treatment to the sample. Sugiyono (2007: 107) defines that experimental research is research that is used to find the effect of certain treatments on others under controlled conditions. In the quasi-experimental there are two types of groups, experimental and control group would teach by using different method. The following table shows the design of the study.

Table 3.1 Quasi-Experimental Design

Group	Pre-Test	Treatment	Post-Test
Experimental	✓	TBL Method	✓
Control	✓	Not TBL Method	✓

As shown in the table above the study involved two classes; experimental class and control class. The two groups of students given a pre-test and a post-test. Different treatment given to the two groups in which in experimental class, the students given treatment by using Task Based

Learning (TBL) Method, whereas in the control class the students given a conventional treatment.

B. Place and Time of the Study

This Research was conducted at MAN 1 Trenggalek on academic year of 2020/2021. That is located in Jl. Soekarno Hatta Gg. Apel No. 12, Kelutan, East Java 66313. This research conducted for approximately one month on November 2020. The research design with a quantitative approach provides advantages in data speed. This is used by researchers to be able to do it in the most efficient time possible.

C. Variable

Variable is one of key terms in any research or the focus of a study. According to Nurul Chojimah (2019: 4) variable is delivered from the words very and able. So, variable is characteristics of subjects of a research which tend to be different from one individual to another or from time to time. Since the study was directed to find cause and effect relationship between two variables, this reasearch had independent variable and dependent variable. Independent variable is the one affecting another variable and dependent variable is the one affected by another variable. The independent variable of the study is Task Based Learning (TBL) Method and the dependent variable is students writing skill.

D. Population

Population is defined as all members of any well-defined class of people, event, or object. Ary et. al. (2010:148). The population of this research werethe tenth grade students at MAN 1 Trenggalek in the academic years 2020/2021 which consisted of twelve classes with around 22-27 students in each class. The total population is 320 students.

E. Sampling

Since the population of the study too big, sampling need to be taken. According to Gay (1992:123) sampling is the process of selecting a number of individuals for a study in such a way that the individuals represent the large group from which they were selected. Sampling is a method of taking sample. In this research the sampling used purposive sampling. Purposive sampling is selecting sample by using a certain criterion. For the study was intended to measure the effect of a certain variable on another variable dealing with cognitive aspect, the criterion is also concerning with cognitive (competency). The researcher selected sample group of students who had similar and average competency. The sample with average competency is believed to be a normal sample meaning that their cognitive to grow when they were given a certain stimulation (being taught by using TBL Method and a conventional method).

F. Sample

According to Chojimah (2019:3) sample is part of population that being studied. Sample is a limited number of elements from a proportion to represent population. As previously mentioned, two groups were used to verify the existing theory dealing with the effectiveness of TBL. Based on the set criterion, class X IPS 2 and class X IPS 3 are selected as the sample of the study. The X IPS 2 class consisted of 14 students was used as the experiment class and the X IPS 3 class comprised 13 students as the control class.

G. Data Sources

Data source means the source from where the data of the study are collected. The data sources of this study is the students results of both pre-test and post-test of writing descriptive text, The students works in the tests are scored by using a scoring rubric. From the result of scoring the data are in the form of scores. That is why the data of the study belonged to quantitative data.

H. Research Instruments

Research instrument is a tool used to collect data that should be valid and reliable. Arikunto (2006:149). Among some kinds of instruments, such as interview guide, observation checklists, observation sheets, questionnaire. In this study, test is used as the instruments. Practically, in this study, both pre-test and post-test are use. Regarding to the procedures of the study, the pre-test is administered to both experimental and control groups before each of the group was give a certain treatment. Meanwhile the post-test is administered to the two groups four meetings after implementing the treatment to each group. It is a subjective test. In this test (both of the pre-test and post-test) the researcher asked the students of the two groups to write a descriptive text. In the pre-test the students are asked to describe a thing with the topic “Describe national tourism”. The time allocation in this test is 40 minutes. The description is minimum 150 words. The post-test, on the other hand, is give after the treatment in which the two groups, as it is done in the pre-test, were also asked to make descriptive text. The topic was “describing international tourism”. The time allocation in this test was 40 minutes with minimum 150 words and maximum 200 words.

I. Validity and Reliability Testing

1. Validity of the Test

Heaton (1989:159) defines the validity of a test as the extent to which it measures what it is supposed to measure and nothing else. To measure whether the test has a good validity, the researcher analyzed the test from content validity, construct validity and face validity.

a. Content Validity

Content validity is the degree to which a test measures an intended content area (Gay, 1992:156). In this research the researcher asked the students to write a Descriptive Text based on the given topic. The instrument of the study fulfilled the requirement content validity for the activity of the test suited

with the syllable used in the school as it is presented in the followed matrix:

Table 3.2: The Matrix of the Content Validity

No	Material	Basic Competence	Indicator
1.	Descriptive Text	- Basic competence that are used 3.4, 3.4.1 and 3.4.2 about the material of descriptive text.	- The students able to identify descriptive text. - The student able to write about descriptive text.

Based on the matrix table 3.2 above, it shows that the test was valid based on content validity.

b. Construct Validity

Construct validity is capable of measuring certain specific characteristics in accordance with a theory of language behavior and learning. Brown (2004:25) mentioned that a construct is any theory, hypothesis, or model that attempts to explain observed phenomena in our universe of perception. In this research, the researcher ask the students to write about Descriptive text to measure the students' skill in writing. The researcher classify the score using writing analytical scoring rubric by Brown (2007:352). The technique of scoring is based on four component, they are content, vocabulary, grammar, and mechanic.

Table 3.3 : Scoring rubric for writing assessment

Components of Writing	Score	Level	Indicators
Content	4	Excellent	Present the information well chosen details across the paragraph.
	3	Good	Present the information with details in parts of the paragraph.
	2	Fair	Present the information with some

			details.
	1	Poor	Present no clear information.
Vocabulary	4	Excellent	Good in vocabulary choice.
	3	Good	Error in vocabulary choice are few and do not interfere with understanding.
	2	Fair	Error in vocabulary choice are and sometimes they interfere with understanding.
	1	Poor	Many error in vocabulary choice that severally interfere with understanding.
Grammar	4	Excellent	Good in grammar.
	3	Good	Error in grammar choice are few and do not interfere with understanding.
	2	Fair	Error in grammar choice are and sometimes they interfere with understanding.
	1	Poor	Many error in grammar choice that severally interfere with understanding.
Mechanics	4	Excellent	Good in spelling, punctuation and capitalization.
	3	Good	Error in spelling, punctuation and capitalization are few.
	2	Fair	Error in spelling, punctuation and capitalization, and sometimes interfere with understanding.
	1	Poor	Error in spelling, punctuation and capitalization and severely interfere with understanding.

Regarding to the scoring rubric each student gained score was taken from the combination of scores of each of component of the scoring rubric. The scoring technique is based on four components, namely content, vocabulary, grammar, and mechanics. Each component has a score of 1-4. The maximum number of rubric scoring scores is 16. To get a score of 100 the researcher multiplies the score by 6.25. So based on the rubric scoring, the test has met the construct validity.

c. Face Validity

Face validity refers to the extent to which examinees believed the instrument is measure what it was supposed to measure. In checking the face validity of the test, the researcher asked the English teacher of the classes that is used to check, whether the test could measure the ability especially in writing descriptive text. This research was done to know the effect of using Task Based Learning (TBL) method to improve students writing skill. So, the test should in the form of writing test. Related to this research, the researcher also asked the students to write descriptive text. So, the test is valid based on face validity.

2. Reliability

According to Heaton (1989:162) reliability is necessary characteristic of any good test for it to be valid at all, a test must first be reliable as a measuring instrument. The reliability of the test is its consistency. Thus, reliability is a measure of accuracy, consistency, dependability, or fairness of scores resulting from administration of particular examination. In addition, the test is reliable if the score is steady over time. There were some factors that may contribute to the unreliability of the result of a test such as fluctuations in the student, the way to score, the process of administering the test, and the test itself. In anticipating those problems in the reliability of the test, the researcher gave sufficient and clear instructions before administering the test, the existence of test specification (time allocation, class, date) and readability of the test instruction.

Practically when the test was given, the first page of the test sheet is give clear instructions about how to do the test, the time allocation for doing the test with the class. Besides the topic of descriptive text that they would be written was also included.

From the test results point of view reliability, the test was determine based on the avaiability of two row scores in writing descriptive text. To get the two row scores try out of the test for post-test was done. The tryout was done on November 3, 2020. In this try out the students were asked to write a descriptive text based on the given topic. By using the prepared scoring rubric, the students descriptive writings were scored. As it was previously mentioned to determine the level of the reliability there must be two row scores, the researcher employed interrater scoring. The scoring process is carried out by involving two scorers, namely Deti Sulaibah and Meico Dwi Prasetyo who are English teachers at MAN 1 Trenggalek. Two-line scores taken from assessor 1 and assessor 2 were statistically calculated using Person Product Moment with the SPSS 16.0 application. The reliability of the examiners can be seen in Table 3.4 below.

Table 3.4: The result of the reliability testing

Correlations

		Score 1	Score 2	Total
Score 1	Pearson Correlation	1	.936**	.983**
	Sig. (2-tailed)		.000	.000
	N	21	21	20
Score 2	Pearson Correlation	.936**	1	.983**
	Sig. (2-tailed)	.000		.000
	N	21	21	20

Total	Pearson	.983**	.983**	1
	Correlation			
	Sig. (2-tailed)	.000	.000	
	N	20	20	20

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

From the correlation analysed, the researcher got the correlation of two score. The value of correlation is 0.983 and sign value is 0,000. It means that correlation and signification of two row scores taken from the rater 1 and the rater 2 very strong because the value is $0.983 > 0,76$, and sign value is $0,000 < 0,05$. From this explanation, it was found that this test is very reliable.

J. Normality and Homogeneity Testing

Normality testing was used to examine whether a set of data was belong to normal distributed or not. After doing the normality testing then the researcher determined whether the statistical test used parametric test or non-parametric test. In this research the normality testing was done toward students score in pre-test and post-test. Because the variable is the achievement or score so the variable is interval, which is why we used the parametric test. Then, the data of the research itself belong to independent samples which the step of statistical testing are:

1. Homogeneity testing

The variances of data was tested to find out if they were equal or homogeneous. This testing was done by getting the score of the students then we subtracted the lowest value to the highest value, the higher the range the more heterogeneous the class is. Finding the standard deviation was also helped to know the variability of the class. To achieve this data, Levene statistic test on SPSS 16.0 was applied in this research with the similar rule of the normality that is $\alpha = 0,05$.

- a. If the homogeneity test resulted $< \alpha = 0,05$ the data were not homogeneous.

- b. If the homogeneity test resulted $> \alpha = 0,05$ the data were homogeneous or have equal variances.

2. Normality testing

Normal distribution is the distribution on variables such as scores or a normal distribution in statistical research is one of the important assumptions before T-test was performed. Its to know whether the samples collected were normally distributed or not. The analysis of normality test in this research used Kolomogorov-Smirnov on SPSS 16.0 with the rules $\alpha = 0,05$:

- a. If the normality test resulted $< \alpha = 0,05$. the data are not normally distributed.
- b. If the normality test resulted $> \alpha = 0,05$. The data are normally distributed.

K. Data Collecting Method

Collecting data is a systematic and standardized procedure to obtain the data. The technique of data collection for this research was be administring two kinds of tests. The first test was pretest that was adminitered for control and experimental class before being given treatments. The second test was be posttest that was administered for control and experimental group after they were given treatments. The tests were in the form of subjective test in which based on the given instruction the students are asked to write a descriptive text by describing a certain topic. By using a scoring rubric, the students' writings were scored and it yielded numerical number showing the gained score of each of student.

L. Data Analysis

Data analysis is an effort made by way of working with data, organizing data, sorted them into manageable units, synthesizing, seek and find patterns, discovering what is important and what is learn. In this study the researcher used quantitative data analysis in term of t-test statistical analysis. This technique is used to find out significant different writing scores of the first grade students of MAN 1 Trenggalek in writing descriptive text taught by using Task Based

Learning (TBL) method and those who are taught by using a conventional method. T-test is a type of statistical test that use to compare the means of two groups (experimental class and control class).The result of this statistical computation is used to test the proposed hypothesis.

T-test is a type of statistical test that was used to compare the means of two groups. T-test was a type of parametric method; it was used when the samples fulfill some criteria such as, the conditions of normality and homogeneity. There were two types of t-tests they were, independent t-test, which used when the two groups under comparison were independent of each other, and the paired t-test, which used when the two groups under comparison were dependent on each other. In this research, independent t-test was used. It can be done in SPSS 16.0 application.

M. Hypothesis Testing

The research was intended to identify if there is any significant difference in the use of Task Based Learning (TBL) on students writing skill. After computing the data using t-test with SPSS 16.0 for windows and determining that the significance level (α) is 0,05 or 5% (it has been programmed on the application) the next step was determining whether or not the Null Hypothesis was rejected. The basis of rejecting or not rejecting the null hypothesis was:

- 1.If P-value or sig < $\alpha = 0.05$ (5 %). It means that null hypothesis (H_0) is rejected and alternative hypothesis (H_a) is accepted.
- 2.But, if P-value or sig > $\alpha = 0.05$ (5 %). It mean that null hypothesis(H_0) is accepted and alternative hypothesis (H_a) is rejected.