

CHAPTER III

RESEARCH METHOD

This chapter presents the researcher's research method. In this method, the major components include a) research design, b) population, sampling, sample, c) variables of the study, d) research instrument, e) treatments, f) validity and reliability, g) data collecting method, h) data analysis, and i) hypothesis testing.

A. Research Design

Research design is the way to complete the data and search the result of the study. It was about the activity that doing to know the purpose of the study. In this study, the researcher wanted to know the effect of Written Coded Indirect Corrective Feedback on students' quality in writing recount text for the 10th graders of Senior High School. Thus, to know whether this technique of feedback in teaching writing effective or not, the researcher decided to use experimental research design which belongs to quantitative research.

According to Ary et al (2010) , experimental research design is a research about the effect of the systematic manipulation of one variable on another. Also, it could be explained that experimental was the research method to test the hypothesis started with a question about the relationship between two variables or more. Moreover, this study used one type of experimental study which was called as pre-experimental.

This study was classified into pre-experimental research design that used one group pre-test and post-test. In the one group of pre-test and post-test, a single

group was measured or observed not only after being treatment, but also before the treatment. Pre-test provided a measure on some attribute or characteristic that was assessed in an experiment before the group got a treatment, while in the post-test measured on some attribute or characteristic that assessed for participants in an experiment after the treatment.

Furthermore, conforming to why using pre-experimental study because the researcher was not visible to have random assignment to determine the sample of the study and it was used limited of the time and cost. The requirement of this design was stated by Creswell (2014), with pre-experimental research design the researcher studied a single group. This design did not have a control group to compare with the experimental group.

Table 3.1 The Illustration of pre-experimental research design

Pre-test	Treatment	Post-test
Y ₁	X	Y ₂

Explanation:

Y₁ : Students' writing quality of recount text before treatment

X : Giving treatment by using written coded indirect corrective feedback on

Y₂ : Students' writing quality of recount text after treatment

According to table 3.1, the procedures of using one group in pre-experimental study design were:

1. Administering pre-test to measure the students' writing score of recount text before the treatment.
2. Applying the treatment by giving Written Coded Indirect Corrective Feedback as long as teaching learning process of recount text.

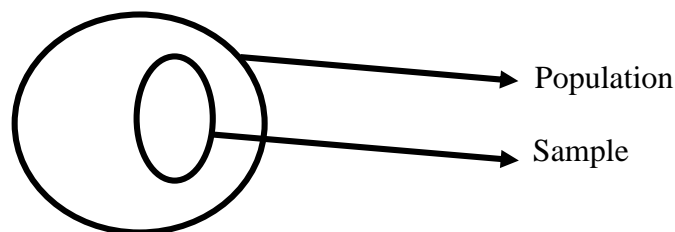
3. Administering post-test to measure the students' writing score of recount text after they are received treatment.

B. Population, Sampling, Sample

1. Population

Sugiyono (2014:115) says that population is the region of generalization that consists of object or subject that has the certain quality and characteristic which is applied by the researcher to be understood and concluded. In other words, it could be said that population was all subject being studied.

Figure 3.1. The illustration of population and sample



In the context of this study, the population was the 10th grade students of MA Darul Hikmah Tawang Sari Tulungagung in academic year 2020/2020 which consisted of 4 classes with the total of students were 106.

2. Sampling

Sampling is the technic how to decide the sample. It means that sampling is the way how to collect data that the characteristic does not cover all of the study object (population), but it only uses the part of population. Then, in deciding the sample, this study used non-probability sampling in which the individual did not has the same chance to be selected as the sample. Next, the kind of non-probability sampling that is used is purposive sampling. According to Cohen at al (2007), this

technic of sampling is satisfactory to specific need. Thus, purposive sampling is the technic of taking sample that is based on the purpose of the research.

3. Sample

Sample is the part of the quantity and the characteristic of population that is being studied. Sample in this study was taken by using purposive sampling technic. After taking sample by using purposive sampling technic, the researcher determined the sample of the study that is X-B Social class of MA Darul Hikmah Tawang Sari Tulungagung that consisted of 26 students in the class. This class was taken as the sample of study because the researcher believed that it could give the sufficient information. Beside, The English teacher recommended this class because the students were active and cooperative, but they were lack interest in writing.

C. Variables of The Study

Ary et al (2010:37) says that variable is the constructs or the characteristics that will be studied. It meant that variable was the focus of the study used in quantitative approach. In experimental study, actually the variables were classified into independent and dependent variables.

1. Independent Variable

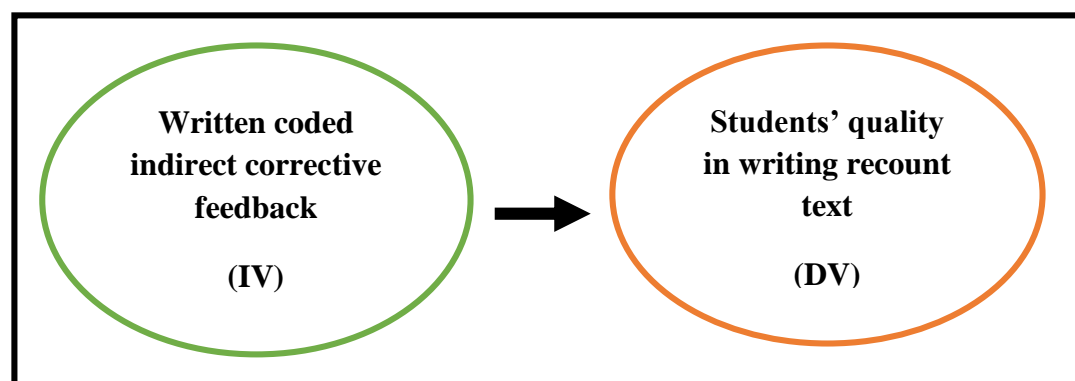
Basically, based on Ary et al (2010:266) independent variable can be manipulated by experimenter. It meant that independent variable could be changed in order to give effect to dependent variable. However, independent variable in current study was written coded indirect corrective feedback.

2. Dependent Variable

Different from independent variable, dependent variable cannot be manipulated by the experimenter (Ary et al, 2010:266) . This variable was affected by independent variable. In short, dependent variable could be called as the outcome from the effect of independent variable. Hence, in current study, the dependent variable was students' quality in writing recount text.

Independent and dependent variable actually had a causative relationship in which independent can influence the result of dependent variable. Furthermore, their relationship can be illustrated as in the figure 3.2.

Figure 3.2 The illustration of relationship between the variables



D. Research Instrument

Research instrument is the measurement tools used by researcher while collecting data. Arikunto (2010:262) stated study instrument referred to an equipment used to collect the data. As an experimental study, the researcher used test in collecting required data. According to Ary et al (2010:201) test was a set of

stimuli presented to individual in order to elicit response on the basis of which a numerical score can be assigned.

Instrument which used by the researcher was essay writing test. There were two kinds of tests for this study, those were pre- test and post-test. Pre-test was intended to measure students' score in writing recount text before the treatment was given, while post-test was to measure students' score in writing recount text after the treatment was given. To assess the students' writing quality, the researcher used scoring rubric. The aspects of scoring were content, organization, vocabulary, grammar, and mechanics. In addition, the scoring rubric used is adopted from Brown (2007:214) as follows:

Table 3.2 Scoring rubric of writing test

Aspects of Writing	Criteria	Score	Weighting
Content (C) 30 % -Topic -Detail	The topic is complete and clear and the details are relating to the topic	4	3X
	The topic is complete and clear, but the details are almost relating to the topic	3	
	The topic is complete and clear, but the details are not relating to the topic	2	
	The topic is not clear and the details are not relating to the topic	1	
Organization (O) 20% -Identification -Description	Identification is complete and descriptions are arranged with proper connectives	4	2X
	Identification is almost complete and descriptions are arranged with almost proper connectives	3	
	Identification is not complete and descriptions are arranged with few misuse connectives	2	
	Identification is not complete and descriptions are arranged with misuse connectives	1	
Grammar (G) 20% -Use past tense -Agreement	Very few grammatical and agreement inaccuracies	4	2X
	New grammatical and agreement, but do not effect the meaning inaccuracies	3	
	Numerous grammatical, and agreement inaccuracies	2	
	Frequent grammatical, and agreement inaccuracies	1	

Vocabulary (V) 15% -Word choice	Effective word choice, word forms and appropriate word number and sufficient word number	4	1,5X
	Few misuses of word choice, word forms but not change the meaning	3	
	Limited range confusing word choice, no word forms, and less word number	2	
	Very poor knowledge of words and word forms, limited word number	1	
Mechanics (M) 15% -Spelling -Punctuation - Capitalization	It uses correct spelling, punctuation, and capitalization	4	1,5X
	It has occasional errors of spelling, punctuation, and capitalization	3	
	It has frequent errors of spelling, punctuation, and capitalization	2	
	It is dominated by errors of spelling, punctuation, and capitalization	1	

$$\text{Score} = 3C+2O+2G+1.5V+1.5M$$

Then, the score criteria can be categorized in the following table:

Table 3.3 Table of Criteria students' score

Criteria	Range Score
Excellent	34-40
Good	28-33,5
Fair	22-27,5
Poor	16-21,5
Very Poor	10-15,5

E. Treatments

Treatments were the steps of teaching that must be applied well and specific in experimental study. The purpose of treatments in this study were to help the students easier to write especially about recount text. Here, the students were guided to write recount text. Moreover, the treatments given in the study were in the form of offline learning in the class by applying Written Coded Indirect Corrective Feedback in writing recount text.

Then, in the context of teaching learning writing by Written Coded Indirect Corrective Feedback, Ferris (2012:49) states that in correcting students' writing errors, the teacher could give the code that indicate the mistake by underlining, circling, highlighting, and marking in the location of error. Specifically, treatment of this study was adopted from Mappe (2000) that was modified by the researcher. Moreover, the treatments in this study were conducted three times on 19th February 2020, 26th February 2020, and 4th March 2020.

In detail, the teaching procedures of Written Coded Indirect Corrective Feedback that were applied by the researcher for students at X-B Social class of MA Darul Hikmah Tawang Sari Tulungagung could be elaborated on the table 3.4.

Table 3.4 The procedures of applying treatments

Date	Activities
19 th February 2020	<ol style="list-style-type: none"> 1. The researcher gave the stimulus to the students by asking questions about their experience in the past. It could be the embarrassing, unforgettable, or so on. 2. The researcher explained the correlation between the question and the material that will be studied about recount text. 3. The researcher gave the example of recount text entitled "Watching Movie" to the students and asked them to analyse what kind of tenses used in the text by underlining the verbs. 4. Then, after the students knew that recount text must use Simple Past Tense, the researcher explained about the pattern of the sentence in Simple Past Tense and gave the example to them. 5. The researcher asked the students to write both verbal and nominal sentence of Simple Past Tense. 6. Next, the researcher asked the students to write their example of Simple Past Tense sentences on the whiteboard. 7. The researcher discussed with the students whether there are any faults in the sentences or not. The researcher gave some codes of feedback about grammars that were not correct there. 8. The researcher asked the students to deliver the reason why the sentence is wrong and why it is true by guessing the code which is given. 9. After that, the researcher explained to the students about the faults that must be avoided in writing Simple Past Tense and also the meaning of some coded correction error of

	grammars. When the students had understood about Simple Past Tense, the researcher continued to explain about recount text which included the generic structure, language feature, and social function.
26 th February 2020	<ol style="list-style-type: none"> 1. The researcher asked a question to the students about the difficulty in writing recount text at the pre-test. 2. The researcher gave the strategies how to write the recount text well. 3. The researcher asked the students to write recount text about “the happiest experience” as the first draft. 4. Students wrote recount text based on the instructions from the researcher. 5. The students submitted their product of recount text writing to the researcher. 6. The researcher gave a piece of paper which contains of the errors’ code and its meaning. 7. The researcher explained generally about the meaning of each code to the students.
4 th March 2020	<ol style="list-style-type: none"> 1. The researcher distributed the students’ drafts that have been corrected by using Written Coded Indirect Corrective Feedback in which it was given symbols in the error location without giving the correct form. 2. The researcher explains about the meaning and purpose of its symbols that be used to correct the students’ writing error. 3. The researcher gave the example of the error sentences and others related to each symbol and guides the students how to correct it. 4. The researcher asked the students to revise their drafts based on the code of Written Coded Indirect Corrective Feedback which was given on it. 5. The researcher asked the students to submit their product of writing after it was revised.

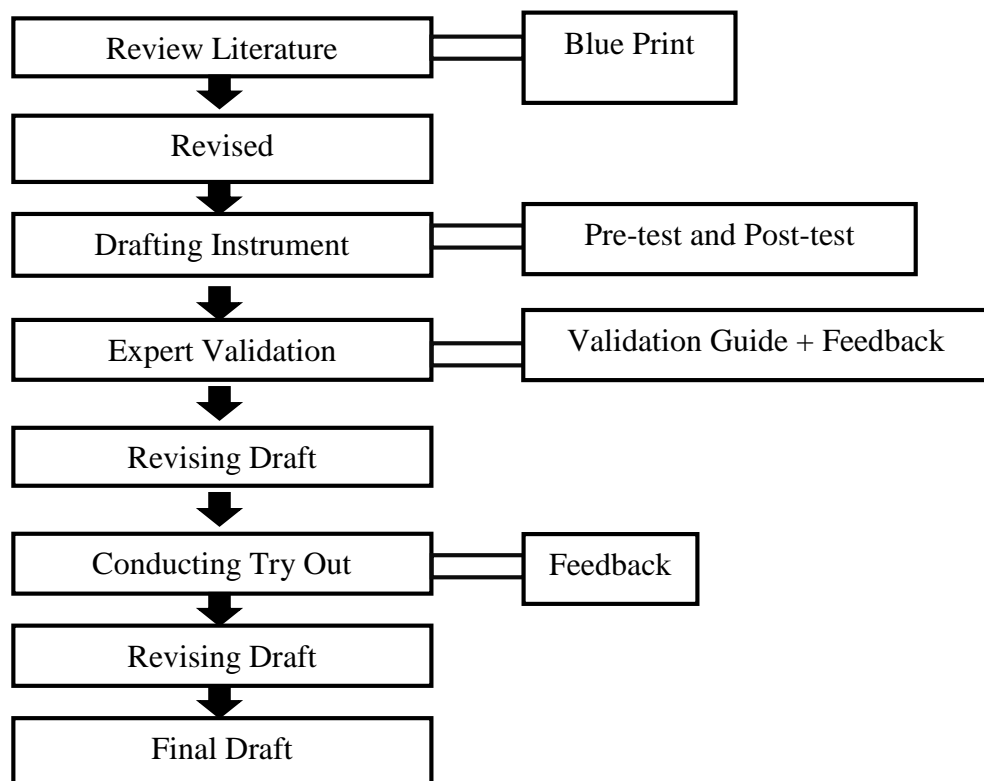
Moreover, the more complete steps in teaching learning process of writing recount text by applying Written Coded Indirect Corrective Feedback in this study can be seen in the lesson plan of teaching writing recount text of 10th grade students at MA Darul Hikmah Tawang Sari Tulungagung in appendix 1.

F. Validity and Reliability

In quantitative research, it is important to get and show the validity and reliability of the data. The way to make valid and reliable instrument can be figured as the figure 3.3.

Figure 3.3 Process in making valid and reliable instrument

The researcher was Adopted the theory from Wilkinson and Birmingham (2003) in order to set the instrument of test. Additionally, to make the steps were easier to understand, the process in making valid and reliable can be illustrated as follows:



According to figure 3.3, the steps in getting validity and reliability were elaborated clearly as these explanations:

1. First, the researcher reviewed the book and syllabus to draft the test.
2. After that, the researcher drafted blue print which included the reviews of book and syllabus.
3. Next, the researcher drafted pre-test and post-test instruments after the blue print has revised by the preceptor.
4. Then, the researcher gave the test to the expert validator in getting feedback by considering with the validation guide.
5. The researcher revised the draft of the test by following the feedback of expert validator.
6. The researcher conducted Try-out in X-B Science class at MA Darul Hikmah Tawang Sari Tulungagung
7. The researcher revised the test after getting feedback from Try-out
8. Finally, the researcher got final draft to test X-B Social class as the sample of this study.

1. Validity

Ary et al (2010:225) defines that validity as the extent to which as instrument measured what it claimed. While, Fraenkel and Wallen (2006:150) stated that validity is the most important idea to consider when preparing or selecting an instrument for use. Hence, it could be concluded that validity was the instrument that measured what was supposed to be measured. To measure whether the test had a good validity or not, the researcher analyzed the test from face validity, content validity, and construct validity.

a. Face Validity

Face validity refers to the degree to which a test looks right, and appears to measure the knowledge or abilities it claims to measure, based on subjective judgement or the examinees who take it, the administrative personnel who decide on its use, and other psychometrically unsophisticated observers (Brown, 2004). The test in this study was designed to measure students' writing skill.

There are some aspects that were considered from this test to make a good test based on the validity.

- a. The instruction must be clear for students. It was about what they should do in the test.
- b. In this test, 10th grade students at Senior High School were instructed to write recount text. Thus, the degree of the test must be suitable for their level.
- c. The consideration of time allocation must be clearly. The researcher gave time to write recount text about 60 minutes for each student.

b. Content Validity

Content validity means that the instruments of the study should match with the curriculum. Moreover, content validity is a kind of validity which depends on careful analysis of the language being tested and of the particular test. In the context of this study, the content validity refers to the 2013 National Curriculum of Indonesia. The researcher conducted consultation with the expert as the way to validate the test that has been set up. In this study the content of item in testing used recount text. It was suitable for the 10th grade students at MA Darul Hikmah Tawang Sari Tulungagung because this test based on the basic competence in

English syllabus of Senior High School. Therefore, this test was valid in term of content validity.

Table 3.5 English syllabus of recount text for 10th grade students

Core Competence	Basic Competence	Indicator
KI 4 Analyzing, thinking, and performing in both concrete and abstract field related to the development of what has been learnt in school individually, and being able to use the method based on the theory in science.	4.14. Composing simple written and spoken recount texts about activity and events by concerning on the social function, text structure, and language features correctly according to its context.	4.14.1 Writing written personal recount text according to the certain theme. 4.14.2 Editing written personal recount text according to the certain theme.

In this study, the researcher made some indicators of writing recount text in the pre-test and post-test activity. Those indicators related to the components of recount text included social function, generic structure, mechanic, and language features. The brief explanation about it can be seen as in the table 3.6.

Table 3.6 Content Validity of Pre-test and Post-test

Construct	Indicators
Social Function	<ul style="list-style-type: none"> The students can write personal recount text based on their experience in real life.
Generic Structure of Recount Text	<ul style="list-style-type: none"> The students can determine the participants which involve in the recount text The students can determine the place and time according to the real story The students can tell the sequence of event specifically The students can make conclusion in the las part of recount text
Mechanic	<ul style="list-style-type: none"> The students can arrange the sentences in the recount text by using appropriate punctuation, capitalization, and spelling.

Language Features	<ul style="list-style-type: none"> • The students can use appropriate action verb in arranging the sentences • The students can use Simple Past Tense • The students can arrange the sentences by using appropriate chronological connection to connect each sentence in the text.
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c. Construct Validity

Johnson (2001: 303) states that construct validity deals with the relationship between a test and a particular view of language and language learning. It could be interpreted that the test should be appropriate with the theory of skills and language components that being measured. According to Brown (2007:214), writing test must measure the five aspects of writing included content, organization, vocabulary, grammar, and mechanic. It functioned to measure the students' quality in writing and this fulfil the construct of writing test so that it can be valid in the term of construct validity.

2. Reliability

Reliability is a measure that states the degree of consistency of a test question. Creswell (2012:627) says that reliability means that individual scores from an instrument should be nearly the same or stable on repeated administrations of the instrument and that they should be free from sources of measurement error and consistent. It means that a reliability is the test can be used to know that test is consistent and dependable. In current study, the researcher ascertained that the test was reliable by doing inter-rater reliability. According to Sarosdy et al. (2006: 135) inter-rater reliability refers to consistency of scores given by two or more scores to

the same set of oral or written texts. The two scorers were researcher and English teacher.

To measure the reliability of test item before conducted the real test, the researcher firstly gains try-out test in different class. In finding out the reliability of the test, the researcher used *Cronbach's Alpha*. According to Sujianto (2009:97), the criteria of reliability based on the value of *Cronbach's Alpha* were as follows:

Table 3.7 The criteria of reliability

Cronbach's Alpha	Interpretation
0,00 - 0,20	Less reliable
0,21 – 0,40	Rather reliable
0,41 – 0,60	Quite reliable
0,61 – 0,80	Reliable
0,81 -1,00	Very reliable

Based on the try-out of instrument that has been done on 6th February 2020 at X-B Science class of MA Darul Hikmah Tawang Sari Tulungagung, the researcher could find the result of the reliability test. The researcher used SPSS 16.0 program to calculate it and the result of the test could be seen as in the table 3.8.

Table 3.8 The result of reliability testing

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.885	.885	2

Based on the table 3.8, the result of *Cronbach's Alpha* was 0.885. It was higher than 0.05. According to the criteria of reliability, It can be concluded that the test was very reliable.

G. Data Collecting Method

The data collecting method is the method to obtain the data in the study. The aims of data collecting in conducting scientific study was to get data that needed by the researcher. However, this study used test as the technique to collect the data. According Arikunto (2010:127) test is a series of questions, or others which are used to measure the skill, knowledge, intelligent, ability or talent that have by individual or group. In addition, technique of collecting data in this study could be elaborated as follows:

1. Pre-test

Pre-test was conducted to measure the students' skill in writing recount text without using Written Coded Indirect Corrective Feedback and knew how far they understand about the subject that being taught. It means that pre-test here was given in the first meeting before they received the treatment during the process of teaching learning writing of recount text. The form of pre-test was essay that required the students to write personal recount text with the topic unforgettable experience. Time Allocation to write recount text was 60 minutes. In this study, pre-test was conducted on 12th February 2020 at X-B Social class of MA Darul Hikmah Tawang Sari Tulungagung.

2. Post-test

After conducting treatment, the post-test was given to the students and it was conducted on 11th March 2020 at X-B Social class of MA Darul Hikmah Tawang Sari Tulungagung. The form and the level difficulty of test in the post-test was almost still same with pre-test, but the topic of recount text is different.

Basically, this test was conducted to measure the students' writing quality rough recount text after receiving the treatment. It was given to know the final score and the student difference achievement before and after they get the treatment of Written Coded Indirect Corrective Feedback. Time allocation to write recount text about unforgettable experience was 60 minutes.

H. Data Analysis

Basically, data analysis is a review of a series activities, grouping, systematization, interpretation, and verification of data, so that phenomenon has social value, academic, and scientific (Tanzeh, 2009 : 69). It meant that the data must be analysed statistically to show the result of the study. It could be analysed after the researcher has finished in conducting study in the field. Moreover, the data analysis in this study covered normality testing and Paired Sample T-test.

1. Normality Testing

Before analyzing the significant difference score of the students before and after being taught by using Written Coded Indirect Corrective Feedback, the data should be normally distributed. Normality testing was intended to measure whether the distribution of test was in normal or not. The data could be called normally distributed if have the low frequency on high score, high frequency on average score, and low frequency on low score. The main reason of conducting normality testing in a study that it is necessary for the researcher to know that the population or data involved in the study in normal distribution.

In this study to measure the normality testing, the researcher used SPSS 16.0 One Sample Kolmogorov – Smirnov method by the value of significance (α) = 0.05. Basic decisions in making normality testing were as follows:

- a. If the significance value > 0.05 , the data had normal distribution
- b. If the significance value < 0.05 , the data did not have normal distribution.

2. Paired Sample T-test

Ary et al (2010:32) states that all of the data collected in every study must be analysed . In the context of the study, all of the data will be converted and presented in the form of numbers because it related to quantitative research. It also involved various statistical procedures.

It is widely known that the results of numerical data analysis in quantitative study are used to answer the study problem. Moreover, the result of data analysis also can give the evidence whether it could support the hypothesis of the study or not. This study the used quantitative data analysis technique by using statistical method. Specifically, this method was used to find the significant difference score of students before and after being taught by written coded indirect corrective feedback.

In knowing the effect of Written Coded Indirect Corrective Feedback on students' writing quality especially about recount text, the data was collected from students' score in pre-test and post-test. Then, the data which was gained from those two tests were analyzed by using t-test for dependent sample, this test was also known as the correlated or non-independent or Paired-Sample-Test.

The measure to be analyzed by the dependent t-Test was the mean score difference between the paired scores. Pre-test and post-test scores of the same individuals are an example of paired score (Ary et al ,2010:176). Paired-Sample-Test was used when the samples are pair or correlate where each individual result in two data. In other words, the scores for pre-test and post-test were correlated because those scores were resulted by same individuals. To know the significant differences, researcher used SPSS 16.0 version.

J. Hypothesis Testing

Bluman (1998: 356) states that hypothesis testing is the process of evaluating claims about a population. Hypothesis testing functioned to know whether the null hypothesis (H_0) of the study is rejected or not. In other words, hypothesis testing was also intended to answer the research question. The hypothesis testing of this study were as follows:

1. If the significance value is smaller than or equal to the significance level (0.05), the null hypothesis (H_0) is rejected. It means that there is significant difference score on the students' writing quality of recount text before and after being taught by using Written Coded Indirect Corrective Feedback.
2. If the significance value is greater than the significance level (0.05), the null hypothesis (H_0) is accepted. It means that there is no significant difference score on the students' writing quality of recount text before and after being taught by using Written Coded Indirect Corrective Feedback.