

CHAPTER III

RESEARCH METHOD

This chapter presents research methodology covering: (1) Research Design, (2) Population and Sample, (3) Research Instrument, (4) Validity and Reliability Testing, (5) Normality and Homogeneity Testing, (6) Data Collecting Method, and (7) Data Analysis.

A. Research Design

This research used quasi experimental design. This design employed a causal relationship by using control group and experimental group and does not select those groups randomly. (Creswell: 2009) This research used quantitative approach and the design employed was experimental research. Because experiments are controlled, the quantitative are the best of designs to be used to establish probable cause and effect.

The present research used quasi experimental as the research design. The quasi experimental design was used because this method does not require random sampling (Jackson, 2008:318). This research method provide the students with pretest, treatment, and posttest to find out the effect of RAFT strategy on students writing achievement. Since there was no random sampling, the sample in this research was considered as nonequivalent sample which consisted of experimental and control group (Jackson, 2008:323).

The researcher took two groups or two classes and used pretest and posttest to see the result of the treatment. This research method provided the students with pretest, treatment, and posttest to find out the effect of RAFT strategy on students writing achievement. Since there was no random sampling, the sample in this

research was considered as nonequivalent sample which consisted of experimental and control group (Jackson, 2008:323).The research design in this research has explained in Table 3.1, as follows:

Table 3.1.Two groups Pretest-Posttest Design

Group	Pretest	Independent variable	Posttest
E	Y1	X	Y2
C	Y3	-	Y4

Notes:

E : experimental group

C : control group

Y1 : pretest for experimental group

Y3 : pretest for control group

X : treatment, or taught writing recount text by using RAFT strategy

Y2 : posttest fr experimental group

Y4 : posttest for control group

B. Population and Sample

1. Population

Population involves the whole of characteristics of the subject or object, not only people, but also all of the quantity of object or subject that will be learnt. In this research, the population is the eleventh grade students SMKN 1 Bandung Tulungagung in academic year of 2018/2019. The subject of the research is all of the students which have the same characteristics and will be investigated through this research.

2. Sampling and Sample

In this research, the researcher used Purposive Sampling Technique to take the samples. In purposive sampling, which also referred to as judgment sampling, sample elements judged to be typical or representative has chosen from the population. (Ary, 2010:156). The researcher took two classes at second grade of SMKN 1 Bandung Tulungagung in academic year 2018-2019, those are 11 AKL 3 class and 11 AKL 4 class. It was done with some considerations that both of two classes was the existing classes which almost have the same average in writing ability.

The sample was taken in term of purposive sampling technique. Purposive sampling was a research sample done by taking some subjects based on a certain purpose by considering limited time, energy and cost so that a researcher does not have to take a great number of sample that was out of the range (Sugiyono, 2009:133-136). According to Ary(2010:156) “purposive sampling also referred to as judgment sampling. Sample elements judged to be typical, or representative, are chosen from the population”, so to get the result of representative of the research, there researcher only chose those who were knowledgeable. It means that the sample has knowledge about writing especially in recount text.

This research used quasi experimental design which has main characteristics; without random placement and use intact group or group which be available. So, the researcher use the groups which are available as sample. The researcher does not take the sample individually but in the form of class. The sample has taken from 11 AKL 4 class as the experimental group and 11 AKL 3 class as the control group. There are 35 students in experimental group and 32 students in control group, so the total number of sample are 67 as respondents in this research.

C. Research instrument

Instrument of the research is a tool used by the researcher in collecting data.

The instruments used in this research were as follows.

1. Pre-test

The researcher did pre-test on 7th August 2018 for experimental group and 10th August for control group. The purpose of pretest was to know the students ability in writing recount text and to know how many the ideas they write before they received the treatment. The procedure of pre-test was the same with the try out in which the student in the experimental group and control group had to write a recount text with the same topic for the try out test. The allocation for each group was 60 minutes.

2. Post-test

The post-test was carried out after providing some treatments by using RAFT strategy in the learning process. It was conducted on 28th August 2018 for experimental group and 24th August for control group. The post-test was done to measure the students' achievement in writing recount text after they were taught by using RAFT strategy. About the time allocation of post-test was similar with pre-test, it was 60 minutes. But the difference was on the topic which used.

D. Validity Testing and Reliability

The try out item should be tested to measure its validity and reliability before conducting pre-test and post-test (Brown, 1988). To know whether the test was good or not, there are two important characteristics that should to be considered:

1. Validity

Validity is a measurement that indicates the levels of the rightness of a certain instrument. In this study, a researcher used a written test to measure the students' ability in writing recount text by RAFT strategy and who are not using RAFT strategy. Before using the instrument, firstly the researcher must try out the instrument to the target research in order to examine empirical validity level of instrument. In this research, the researcher used face validity, construct validity and content validity.

a. Face validity

The instrument has face validity when it looks like it can measure what it is supposed to measure. Face validity refers to the degree to which a test looks right and appears to measure the knowledge or abilities it claims to measure (Mousavi, 2002:244). The test in this research was designed to measure the students' writing ability. To achieve face validity, the researcher provides the instructions on the paper test to ask students to write.

b. Construct validity

Construct validity is validity which shows how far the tests are suitable with the theory that becomes a foundation on composing those tests. Construct validity refers to what extent the instrument measures a concept of a theory, which is the base of composing instruments. The instrument is constructed concerning aspects that will be measured according to the certain theory. Then, the instrument is consulted to the expert.

In this research, the instruments which have been constructed based on the writing and recount theory. The item test demands students to write a story about recount text. To test the construct validity is used the expert opinion. After an instrument is constructed about the aspects which be measured based on appropriate theory, then the instrument is consulted with the expert. The expert will give their

opinion about the instrument which researcher made. After get the judgment from the expert, the instrument can be tried out to the eleventh students' of SMKN1 BANDUNGTULUNGAGUNG which consist of 20 students to find out the validity of the test.

c. Content validity

In this case, the researcher makes a written test consist of an item question in a form of text. The test is made up to testing the students' ability in writing recount text. Besides, Isnawati (2014: 27) said that a test will have content validity not only represent the sample of the language skill, structures, etc. which being tested, but also includes a proper sample of content which is relevant with the purpose of the test. The test is appropriate with the lesson material be taught. In this study, the content validity refers to the Curriculum of 2013 as the school has implemented. Based on the basic competence in syllabus of Curriculum of 2013, it is stated that the first grade students of Senior High School are taught about recount text. Moreover, the basic competence mentions that the students are expected be able to composing recount text by concerning on the social function, text structure, and language features correctly according to its context.

Table 3.2 Content Validity

Core competence	<p>3. Understanding, implementing, analyzing factual, conceptual, and procedural knowledge based on the curiosity towards science, technology, art, culture, and humanity with the knowledge of humanism, nationalism, and civilization related to the cause of phenomena and events and implementing the procedural knowledge in a specific field according to the skill and interest to overcome the problem.</p> <p>4. Analyzing, thinking, and performing in both concrete and abstract fields 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.</p>
Basic competence	<p>4.7 Recount text – historic events</p> <p>4.7.2 Composing simple written and spoken recount text about historic events by concerning on the social function, text structure, and language features correctly according to its context.</p>
Indicator	Writing a simple and short paragraph of recount text with the correct structure.
Technique	Written test
Instrument of the test	<p><u>Pretest</u> The students should write a short recount text consisting of three elements; orientation, events and reorientation by choosing the topics which be served.</p> <p><u>Posttest</u></p> <ul style="list-style-type: none"> • Control class The students should write a short recount text consisting of three elements; orientation, events and reorientation by choosing the topics which be served. • Experiment class The students should write a short recount text consisting of three elements; orientation, events and reorientation by choosing thefour topics on the basis of the RAFT strategy have been taught
Time allocation	30 minutes

Based on the table 3.2 above, the instrument of the test can be said have the content validity because the test has equal purpose with the core competence and basic competence in syllabus of Curriculum of 2013, which is testing the students' ability in writing recount text with the correct structures.

2. Reliability

A good test must be valid and reliable. Reliability means the stability of test scores; a test cannot measure anything well unless it measures consistently (Harris, 1969:14). One of the ways to achieve the reliability in a test was that a researcher may apply *rater reliability*. There are two kinds of *rater reliability*; the first was inter-rater reliability in which two raters or scorers do the scoring, well the second was known intra-rater reliability in which a rater or a scorer does the scoring twice.

In this test the researcher used inter-rater reliability where the researcher involved two raters do in scoring the students' writing ability. The rater here was a seventh semester student of English Students Department at IAIN Tulungagung. The researcher decided to choose the rater, because she has the ability to understand each point in the scoring rubric. After getting the score of tryout from both of the raters, the researcher calculated the score of pre-test using SPSS 16.00 program to know the reliability coefficient. The result of reliability testing can be seen from the table:

Table 3.3 Reliability of Try-out

		RATER 1	RATER 2
RATER 1	Pearson Correlation	1	.985**
	Sig. (2-tailed)		.000
	N	10	10
RATER 2	Pearson Correlation	.985**	1
	Sig. (2-tailed)	.000	
	N	10	10

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

From the table above, it showed that the result of reliability test for the questions by using *Pearson* product moment in SPSS 16.00 was 0.985. It means that the instrument was reliable, because the instrument called reliable if the significant close to 1

E. Normality and Homogeneity Testing

1. Normality Test

Data normality testing is conducted to show that the sample data come from a normally distributed population. In this research, the result of data both experimental and control group are tested with the help of SPSS program 16.0 version. The data included students' score in pretest and posttest. The output is seen by Kolmogorov-Smirnov column. Normality testing is done by using the rule of Asymp. Sig (2 tailed) as follows:

- a. If Asymp. Sig (2 tailed) > 0.05 , so the test distribution is normal.
- b. If Asymp. Sig (2 tailed) < 0.05 , so the test distribution is not normal.

**Table 3.4 Test of Normality pre-test
One-Sample Kolmogorov-Smirnov Test**

		PRETEST_E	PRETEST_C
N		35	32
Normal Parameters ^a	Mean	70.51	68.50
	Std. Deviation	8.064	7.984
Most Extreme Differences	Absolute	.209	.213
	Positive	.162	.213
	Negative	-.209	-.175
Kolmogorov-Smirnov Z		1.236	1.208
Asymp. Sig. (2-tailed)		.094	.108

a. Test distribution is Normal.

Based on the result of computation with the helped of SPSS program 16.0 version, value of Asymp. Sig (2 tailed) from both pretest in experimental and control class are bigger than 0.05. The value of Asymp.Sig (2 tailed) of pretest in experimental class is 0.094 and it is bigger than 0.05 ($0.094 > 0.05$). It can be conclude that the test distribution is normal. Then, the value of Asymp. Sig (2 tailed) of pretest in control class is 0.108 and it is bigger than 0.05 ($0.108 > 0.05$). So, the test distribution is normal.

**Table 3.5 Test of Normality Post-test
One-Sample Kolmogorov-Smirnov Test**

		POSTTEST_E	POSTTEST_C
N		35	32
Normal Parameters ^a	Mean	77.37	67.31
	Std. Deviation	6.540	7.123
Most Extreme Differences	Absolute	.223	.273
	Positive	.223	.273
	Negative	-.159	-.152
Kolmogorov-Smirnov Z		1.318	1.543
Asymp. Sig. (2-tailed)		.062	.054

a. Test distribution is Normal.

Based on the result of computation with the helped of SPSS program 16.0 version, value of Asymp. Sig (2 tailed) from both posttest in experimental and control class are bigger than 0.05. The value of Asymp.Sig (2 tailed) of posttest in experimental class is 0.062 and it is bigger than 0.05 ($0.062 > 0.05$). It can be conclude that the test distribution is normal. Then, the value of Asymp.Sig (2 tailed) of posttest in control class is 0.054 and it is bigger than 0.05 ($0.54 > 0.05$). So, the test distribution is normal.

2. Homogeneity Test

The homogeneity test is conducted to know whether the variety of data both experimental and control classes is same or not. Homogeneity test is important since the result of research will be generalized in a population. In this research, a researcher conducts testing the homogeneity with the help of SPSS program 16.0 version.

The homogeneity testing must fulfill the testing criteria as follows:

- a. P-value or Sig. is ≥ 0.05 means the data have same variant or homogeneity.
- b. P-value or Sig. is < 0.05 means the data have different variant or not homogeneity.

Table 3.6 Test of Homogeneity of Variances

Pre-test result

Levene Statistic	df1	df2	Sig.
1.457	4	26	.244

Based on the result of testing homogeneity above, the significant of group on writing recount text using learning process RAFT was 0.244 on pre-test. It means that the significant of group higher than significant level 0.05. So homogeneity of in pre-test variances, Howas not rejected which it said that the data were homogeneity.

**Table 3.7 Test of Homogeneity of
Variances**

Post-test Result

Levene Statistic	df1	df2	Sig.
1.844	4	24	.153

Based on tables above, it showed that the significant of group on writing recount text using learning process RAFT strategy was 0,153 on post-test. It means that the significant of group more than 0.05. So, it can be conclude that H_0 was not rejected and the data of group on writing recount text using RAFT strategy in posttest has the same variant.

F. Data Collecting Method

Data collecting is the most important work in the research in order to be acquired the appropriate result. Data collecting method is the way that used by the researcher to collect the data. The researcher used administering test as a method in collecting data. Data of this research is collected by administering the test. According to Ary, test is consist of achievement test and aptitude test (Ary, 2010:201). The achievement test usually is used in educational research, as well as in school systems. The aim is to measure the students' knowledge. Achievements test generally classified to standardized test and researcher made test. In this study, the researcher used researcher-made test as the instrument of collecting data. The researcher construct test in order to be suitable for the specific objectives of the research. The test that given is written test which given as pretest and posttest. The pretest is given

to both of experimental class and control class before the researcher does a treatment. Whereas, posttest is given both of experimental class and control class after the researcher does a treatment. The treatment which be done by researcher is different for both of two class. To experimental class, the researcher does a treatment by using RAFT strategy. Meanwhile, the researcher does not give a treatment to control class. For pretest, the researcher gives a question in a form of text to the students. The students have to write recount text based on their imagination. The content of the text should come from theirs idea and thought. For posttest, the researcher also gives a question in a form of text to the students. The students have to write some paragraphs about recount text based on their idea that appear through the treatment which be given to them. A text should consist of more than 10 sentences. The students should be pay attention to the five aspects of writing which would be used in the assessment. These five aspects are as follows; content, organization, vocabulary, grammar and mechanic. To pass the written test, the students should reach good level in five aspects of writing. The analytic scoring provided by Cohen (1994: 328-329) in Isnawati'sbook (2014: 75) can be seen at table 3.6. In this case, the calculation is done by dividing the total scores with Maximal score (20) and multiplying it with one hundred. Finally the students writing level can be determined. The criteria of writing test can be seen in Table 3.7

Table 3.8TheAnalytic Scoring of Written Test

Aspects	Explanation	scores
Content	• Main ideas stated clearly and accurately, change of opinion clear	5
	• Main ideas stated fairly, clearly and accurately, change of opinion relatively clear	4
	• Main ideas somewhat, unclear and inaccurate, change of opinion somewhat weak	3

	<ul style="list-style-type: none"> • Main ideas not clear or accurate, change of opinion weak • Main ideas not all clear or accurate, change of opinion very weak 	2 1
Organization	<ul style="list-style-type: none"> • Well organized and perfectly coherent • Fairly well organized and generally coherent • Loosely organized but main idea clear, logical but incomplete sequencing • Ideas disconnected, lacks logical sequencing • No organization, incoherent 	5 4 3 2 1
Grammar	<ul style="list-style-type: none"> • No errors, full control of complex structure • Almost no errors, good control of structure • Some error, fair control of structure • Dominated by errors, no control of structure • Many errors, poor control of structure 	5 4 3 2 1
Vocabulary	<ul style="list-style-type: none"> • Very effective choice of words and use of idioms and word form • Effective choice of words and use of idioms and word forms • Adequate choice of words but some miss use of vocabulary, idioms and word form • Limited range, confused use of words, idioms, and word for • Very limited range, very poor language of words, idioms, and word form 	5 4 3 2 1
Mechanic	<ul style="list-style-type: none"> • Mastery of spelling and punctuation • Few errors in spelling and punctuation • Fair number of spelling and punctuation errors • Frequent errors in spelling and punctuation • No control over spelling and punctuation 	5 4 3 2 1
<p>The total number gotten x 100 = n The maximal score</p>		

Table 3.9The Criteria of Writing Test

No.	Grade	Qualification	Range of scores
1	A	Excellent	85-100
2	B	Good	84-70
3	C	Average	69-55
4	D	Poor	54-50
5	E	Very poor	49-0

G. Data Analysis

After the data have been collected from the data collecting result, the researcher should analyze the data immediately. The data or the score of experimental and control class test should be analyzed to know the effectiveness of RAFT strategy in this research. The researcher divides the test result into two groups, they are experimental group and control group. The score of the written test of both groups are analyzed. The researcher uses statistical analysis to analyze the collected data using t-test formula with the helped of SPSS program 16.0 version. T-test technique is a statistical technique which is used to test the difference significance of 2 mean which comes from 2 distributions. Based on the statement above, this research used t-test in order to differentiate the students' result of writing a recount text who were taught by using RAFT and those who were taught without using RAFT was significant or not.