

III. METHODS

In this chapter, the methods of the research will be discussed. The part of methods such as: research design; population and sample; data collection technique; instrument of the research; scoring system; scoring writing test; validity and reliability; research procedure; data analysis; and hypothesis testing will be explained further.

3.1. Research Design

The research was conducted to find out whether there was different students' writing ability of recount text who were taught by using authentic materials and simplified materials. The researcher chose two groups or classes for conducting the research. Both classes were experimental classes. The students were given by treatment of teaching writing of recount text. One class used authentic materials and another class used simplified materials. After giving the treatment, the researcher gave a post test for both classes.

In this research, the researcher used quantitative approach. There were two groups of the pre-test and the post-test designs because the researcher investigated the different students' writing ability of recount text who were taught through authentic and simplified materials. The pre-test was conducted in both experimental classes before giving treatment to know the result of students' basic

writing ability. In addition, the post-test was conducted in both experimental classes after giving treatment to find out the students' increase of writing.

The research design was illustrated as follow:

G1	T ₁ X ₁ T ₂
G2	T ₁ X ₂ T ₂

In which,

G1 : the experimental class 1 where authentic material was applied

G2 : the experimental class 2 where simplified material was applied

T₁ : pre test

T₂ : post test

X₁ : the treatment of authentic materials

X₂ : the treatment of simplified materials

(Hatch and Farhady, 1982: 22)

3.2. Population and Sample

The research was conducted at the first year of SMAN 3 Metro. There were two classes that were taken as the sample of the research. Those classes were X IPA2 that consists of 32 students and X IPA3 consists of 32 students. The total number of sample was 64 students. They relatively had the same characteristics according to their ability in score of assignment.

After the samples were selected, the classes were determined to be the experimental class 1 and experimental class 2. Class X IPA2 became experimental class 1 and class X IPA3 became experimental class 2. The researcher taught

writing of recount text through authentic materials in the experimental class 1. Besides, the researcher taught writing of recount text through simplified materials in the experimental class 2. Then, the students in both classes did the pre-test and the post-test of writing recount text.

3.3. Data Collection Technique

In collecting the data, the researcher used the following technique:

1. Administering Pre-test

Pre-test was administered by using written test to both classes (experimental class 1 and experimental class 2) at the beginning of the research. It was given before the treatment in order to know how far the competences of the student in recount text writing. By giving the pre-test, the researcher knew some problems of the students in writing. The students were asked to compose recount text based on the theme “good or bad experience”. The instruction asked them to write 4 paragraph of recount text including one paragraph of orientation, 2 paragraphs of series of events, and one re-orientation in 2x45 minutes. In addition, this pre-test was carried out to find out the basic writing ability of experimental class 1 and experimental class 2 in recount text.

2. Treatment

The researcher used authentic materials and simplified materials to do the treatment in both classes. The treatments were form of applying those materials to assist the students’ recount text writing in both classes. The treatments were settled based on the lesson plan that consists of preparation,

modeling and reinforcing, planning, introducing independent construction, and revising. The researcher used two lesson plans to be applied in two experimental classes based on authentic materials in experimental class 1 and simplified materials in experimental class 2. The researcher took 3 meetings in each experimental class while one meeting had been conducted in 2x45 minutes. The materials in experimental class 1 are Diary of a Wimpy Kid at School, Meet Asia-the second of growing line up of diary and Diary of native speaker. Besides, A Beautiful Day at Jogja, My amazing vacation, and My Horrible Experience are the materials that the researcher used in experimental class 2.

3. Administering Post-test

Post-test was given to both experimental classes in order to find out the result of the treatments. The aim of the post-test is to find whether or not there is any significant difference between students' recount text writing scores of the experimental class 1 and the experimental class 2 after getting treatment. In other words, the post-test was carried out to investigate the effectiveness of authentic materials and simplified materials in teaching writing in recount text by analyzing the result of increase. The students were asked to compose recount text based on the theme "good or bad experience". The instruction asked them to choose one topic of their experiences and write 4 paragraph of recount text including one paragraph of orientation, 2 paragraphs of series of events, and one re-orientation. They had to concern to five aspects of writing that they had learnt in the treatment. In addition, they may not choose the

same topic of the experience with the previous test (pre-test). Time allocation for the post-test is 2x45 minutes.

3.4. Instrument of the Research

The researcher checked the students' recount text writing by giving two writing tests of recount text to the students in essay form. The writing tests were the pre-test and post test. The aim of the pre-test was to know the students' basic writing ability in recount text before conducting the treatment. Meanwhile, the aim of the post test was to know the students' increase of writing ability in recount text after conducting the treatment. The researcher gave instructions to the students to write their name and class in a piece of paper. Then, the researcher gave the time to do the writing test at around 90 minutes. The topics of the instruments were two recount texts based on authentic materials and simplified materials.

3.4.1. Scoring System

The researcher listed the scores and calculated the means through mean formula as follows:

$$\bar{X} = \frac{\Sigma X}{N}$$

Where:

\bar{X} : mean

ΣX : total scores

N : number of students

Mean shows whether the test is easy or difficult. If the mean score is too high, it means the test is very easy for the students. And there is an error in giving

the score for the students. A mean of 90 means that the test is easy while an average of 40 means that the test is difficult. According to Heaton (1991: 175), the mean score of any test is arithmetical average i.e. the sum of the separate scores is divided by the total number of students. It is the most efficient measure of central tendency, but it is not always appropriate.

3.4.2. Scoring Writing Test

To gain the data in this research, the researcher considered based on the following components below:

1. Content : the substance of writing, the idea expressed (unity)
2. Language Use : the employment of grammatical forms and syntactic patterns
3. Organization : the form of the content (coherence)
4. Vocabulary : the selection of word that suitable with the content
5. Mechanics : the conventional devices used to clarify the meaning

(Jacobs et al, 1981)

The system of scoring criteria basically covers five aspects of scoring system in writing and it is elaborated as the explanation at the table below:

Table 3.1. The Scoring Criteria of Writing Test

No.	Writing Aspects	0 (Very poor)	5 (Poor)	10 (Fair)	15 (Good)	20 (Excellent)
1	Content	The idea of writing is irrelevant with the topic. There is no developing sentence that supports the main idea. The idea is unclear.	There is a few of developing sentence that is written to support the main idea. It is inadequate developing of topic. The supporting	There are several developing sentences that are written to support the main idea. The supporting ideas are consistently	Most of developing sentences that are written to support the main idea. They are relevant to the assigned topic. The supporting	All developing sentences support the main idea and relevant to the assigned topic. The supporting ideas are

			ideas are vague and general without development.	well developed with specific examples and evidence but lack of details.	ideas are consistently well developed with specific examples, details, and evidence.	elaborated with logical examples, logical reasoning, details, evidence, emotion, and personal comment.
2	Language Use	The grammatical structures in all sentences are incorrect and inaccurate with the context of writing. There is no sentence that is written in correct composition of words, phrases, and clauses.	There is a few of sentence that is written in the correct and accurate grammar. There are some mistakes in composition of words, phrases, and clauses.	There are several sentences that are written in the correct and accurate grammar. There are good usages of grammatical structures but there are some mistakes in composition of phrases and clauses.	Most of sentences are written in the correct and accurate grammar. There is minor mistake in using the composition of words, phrases, and clauses in the context of writing.	All sentences are written in the correct and accurate grammar. There is no wrong grammatical structure in the context of writing. The written work uses correct composition of words, phrases, and clauses, and also pattern of sentence.
3	Organization	There is no coherent and cohesive sequencing of ideas among sentences and paragraphs.	There is a few of sentences that are written in coherent and cohesive sequencing of ideas among sentences and paragraphs. There is minimal usage of transitions link parts of the written work.	There are several sentences that are written in coherent and cohesive sequencing of ideas among sentences and paragraphs. Transitions link parts of the written work or ideas within paragraphs are clear.	Most of sentences are written in coherent and cohesive sequencing of ideas among sentences and paragraphs. They use varied transitional elements link parts of the written work and link ideas within paragraphs without repetition.	All sequenced of ideas are well developed. They use effective and varied transitional elements to link all elements of the response: parts of the written work, ideas, paragraphs, and sentences.
4	Vocabulary	There is no correct and appropriate word choice in the context of writing.	There is a few of word choice according to the topic that is written correctly and	There are several word choices according to the topic that is written correctly and	Most of word choices are written correctly and appropriately according to the topic. It	All of word choices are written correctly and appropriately according to the topic. It

			appropriately. It means that the word choice is simple and ordinary.	appropriately. It means that the word choice is generally interesting.	means that word choice is interesting and precise.	has variety of word choice well.
5	Mechanics	There is no correct usage of writing conventional device. The use of punctuation within sentences, spelling, capitalization, and paragraph indentation are incorrect and lacking.	There is a few element of conventional device that is written consistently correct and accurate with the context of writing like punctuation within sentences, spelling, capitalization, and paragraph indentation. There are some errors in punctuation and spelling.	There are several elements of conventional devices that are written consistently correct and accurate with the context of writing like punctuation within sentences, spelling, capitalization, and paragraph indentation. There are some errors in capitalization and paragraph indentation.	Most elements of conventional devices are consistently correct and accurate with the context of writing like punctuation within sentences, spelling, capitalization, and paragraph indentation. There is minor error of usage for example: paragraph indentation.	All elements of conventional devices are consistently correct and accurate with the context of writing like punctuation within sentences, spelling, capitalization, and paragraph indentation. There is no mistake of usage.

(Georgia High School Writing Test: Scoring Rubric)

Table 3.2. Specification of Writing Test

Writing Aspects	Criteria in writing test	Score
Content	Make an effective recount text by seeing the topic sentence and controlling the idea	20%
Language Use	Use past tense, correct grammatical and syntactic pattern	20%
Organization	Use the transitional word in spatial order	20%
Vocabulary	Use the suitable words	20%
Mechanics	Use correct graphic conventional of the language. Including spelling, punctuation, capitalization, and paragraphs	20%

In line with the explanation above, the researcher evaluate the aspects of writing recount text based on content, grammar, organization, vocabulary, and mechanics in same percentage. The lowest score is 0 and the highest score is 100. Then, the percentage of the score in each aspect of writing is same in order to make the

researcher easy for analyze the increase of the aspect writing of the students in experimental class 1 and experimental class 2.

3.5. Validity and Reliability

In order to get the data which were needed by the research, the researcher tried to use an appropriate instrument to measure the result of the research. This research had valid and reliable instrument of writing test. Here, the researcher gave a brief explanation about validity and reliability.

3.5.1. Validity

Validity is the extent to which it measures what it is supposed to measure. Hatch and Farhady (1982: 250) also explain that validity refers to the extent to which an instrument really measures the objective to be measured and suitable with the criteria. A test must aim to provide a true measure of a particular skill which it is intended to measure. Thus, to know whether the test has good validity, the researcher looks from the content and construct validity.

- Content validity

Hatch and Farhady (1982: 251) states that content validity is the extent to which the test measures a representative sample of the subject matter content. It concerned whether the tests were good reflection of the materials that need to be tested. To get the content validity of writing ability, the researcher tried to arrange the materials based on the objective of teaching in syllabus for first grade of senior high school students. '4.8. Composing oral and written recount text, in the form of work report and description of historical events, by paying attention to

the social function of the text, structure of the text, and the elements of the correct linguistic and appropriate to the context’.

- Construct validity

Construct validity concerns whether the tests are true reflection of the theory of the trait – in our case – language which is being measured. To find construct validity of the test, the researcher formulated the test by the concept of writing ability. In this case, the focus of the test includes the content, grammar, organization, vocabulary and mechanics of writing recount text by Jacobs et al (1981: 90).

According to the explanation above, it can be concluded that the writing test that was used by the researcher in experimental 1 and experimental 2 was valid because the materials had complete the requirements of content and construct validity.

3.5.2. Reliability

Reliability is defined as the extent to which a questionnaire, test, observation or any measurement procedure produces the same results on giving repeated test. It is the stability or consistency of scores overtime or across raters. The researcher used two raters in scoring the students’ writing test of recount text.

Inter-Rater Reliability determined how consistent both two raters of the instrument are. The instruments of the writing test were used in this research is the pre-test and the post-test of writing recount text. The researcher became a rater 1 who was accompanied by an English teacher at school as rater 2. She was graduated from University of Lampung. She has become an English teacher in

SMA Negeri 3 Metro for 29 years. Each rater would provide a performance score for each individual (e.g., a total score summed over open-ended test items). The correlation between the scores was assigned by Rater 1 and by Rater 2 to persons could be used to determine inter-rater reliability. It means that the consistency among raters (in the sense of relative or deviation scores assigned).

The formula is as follows:

$$r = 1 - \frac{6 \sum d^2}{N(N^2 - 1)}$$

Where:

r : rank – difference

$\sum d$: the sum of difference between each pairs of ranks

N : number of students

(Harris, 1974: 142)

In this case, the researcher also uses the standard of reliability (Arikunto, 1998: 260) below:

0.81 – 1.0 = very high

0.61 – 0.8 = high

0.41 – 0.6 = medium

0.21 – 0.4 = low

0 – 0.2 = very low

After calculating the result of the students' recount text writing, the researcher calculated the data by using the formula above (see Appendix 4, 5, 6, and 7). The result of reliability could be seen in the following table:

Table 3.1. Reliability Test in Both Experimental Classes

	Pre-test	Post-test	Criteria
Experimental Class 1	0.70	0.79	High reliability
Experimental Class 2	0.68	0.79	

From the criteria of reliability and calculation, it can be concluded that the reliability of two raters in the two experimental classes is high. It means that the researcher's way of scoring the data is similar to the second rater. They had almost the same scoring system. The raters used the scoring rubric and scoring criteria of writing. The result showed that both raters showed that both raters scored the students' writing consistently and fairly.

3.6. Research Procedure

The procedure of this research was designed as follows:

1. Determining the population and then selecting the sample

The population of this research was the first grade of SMAN 3 Metro. The samples were chosen by cluster sampling. The researcher took two classes. Those two classes were randomly assigned into experimental class 1 and experimental class 2.

2. Arranging the materials to be taught

The materials were based on the students' handbook of senior high school as simplified material. Besides, the researcher also prepared the materials from network as authentic materials. And the researcher used recount text as the focus of study.

3. Administering the pre-test

The researcher prepared the pre-test material and gave it to both classes. The aim of this test was to know the students' basic writing ability of recount text.

4. Conducting treatments

The researcher had conducted three treatments in each of experimental class. In the experimental class 1, the researcher taught writing of recount text through the authentic materials. It was included by three meetings, which takes 2x24 minutes every meeting. Meanwhile, the researcher taught writing of recount text through the simplified materials in experimental class 2. It was also included by three meetings, which took 2x24 minutes every meeting. The material was settled based on the lesson plan that had been prepared before.

5. Administering the post-test

The researcher prepared the post-test materials and gave it in the last meeting. The test was written form of recount text. It contained the instructions of written test.

6. Data analysis

The result of pre-test and post-test in experimental class 1 and experimental class 2 were analyzed by using Independent Group T-test to compare the data of two means scores.

7. Reporting

The last point that had been done in the research procedure was reporting.

It was an action where the researcher got the result of the research and made a report based on the findings.

3.7. Data analysis

After collecting the data, the researcher analyzed the data by using Independent Group t-test in SPSS (Statistical Program for Social Science). The researcher collected the data by looking at the result of the pre-test and the post-test of writing recount text. After getting the result, the researcher analyzed how far the increase of students' recount text writing after giving a treatment was. Then, it was determined what the difference on writing ability of recount text of the students who were taught by using authentic materials and simplified materials in 5 aspects of writing.

Therefore, the writer used normality test and homogeneity test to treat the data that were taken from the result of the pre-test and the post test.

- a. Normality test. It was used to investigate whether the data in both experimental classes were normally distributed or not.
- b. Homogeneity test. It was used to know whether the data in experimental classes were homogenous or not.

3.8. Hypothesis Testing

After collecting the data, the researcher tried to analyze them in order to find out whether there is a significant difference on writing ability in recount text of the

students who are taught through authentic and those who are taught through simplified materials. The researcher used Independent Group t-test and SPSS Parametric to know the level of significance of the treatment effect.

The formulation is:

$$t = \frac{\bar{X}_1 - \bar{X}_2}{S(\bar{X}_1 - \bar{X}_2)}$$

With:

$$S(\bar{X}_1 - \bar{X}_2) = \sqrt{\frac{S_1^2}{n_1} + \frac{S_2^2}{n_2}}$$

Where:

S_1^2 : Variance the first sample

S_2^2 : Variance the second sample

\bar{X}_1 : Mean from the different pre-test and post-test of experimental class 1

\bar{X}_2 : Mean from the different pre-test and post-test of experimental class 2

n_1 : Size of the first sample

n_2 : Size of the second sample

(Hatch and Farhady, 1982)

The criteria are:

- If the t-ratio is higher than t-table: H_1 is accepted

It means that there is any different students' writing ability of recount text who are taught by using authentic materials and simplified materials.

- If the t-ratio is lower than t-table: H_0 is not accepted

It means that there is no different students' writing ability of recount text who are taught by using authentic materials and simplified materials.