

CHAPTER III

RESEARCH METHOD

The objective of this study is to investigate the effectiveness of the use of response journal writing to enhance the students' writing skills. This chapter presents the research method that consists of research design, research hypothesis, variable of the research, research subject, research procedure, data collection technique, instrument, and data analysis technique.

A. Research Design

This research used quasi-experimental research design to answer the research problem "Is response journal writing strategy effective to enhance students' writing skill than traditional strategy?". Trochim states that experimental research is the way to find out a causal relationship between two factors that are intentionally made by the researcher by setting aside other factors that influence. Quasi-experimental research design looks the same as true experimental research design, but it lacks the key ingredient of random assignment.⁴⁰ It is the design which does not provide full control. As stated by Ary et al that full experimental research is not always possible to conduct a random selection of subjects in education research especially learning. This is because the subjects that have been formed are naturally in groups. Those are group of students in one class.⁴¹ In the case of this research, the subjects selected were in their

⁴⁰ William M. K. Trochim, *The Research Methods Knowledge Base*, 2nd Edition (Ithaca, N.Y: Cornell Custom Publishing, 1999). 215

⁴¹ Donald Ary, *Introduction to Research in Education* (USA: Wadsworth, 2010), 316

intact classes. Therefore, there is no possibility to have random assignment in selecting the sample. With this limitation, it is quasi experimental design that suits the purpose of this research.

Under this quasi experimental design, this research was conducted by adopting the quasi experimental procedure suggested by Ary et al.⁴² The research procedure is presented in the following figure.

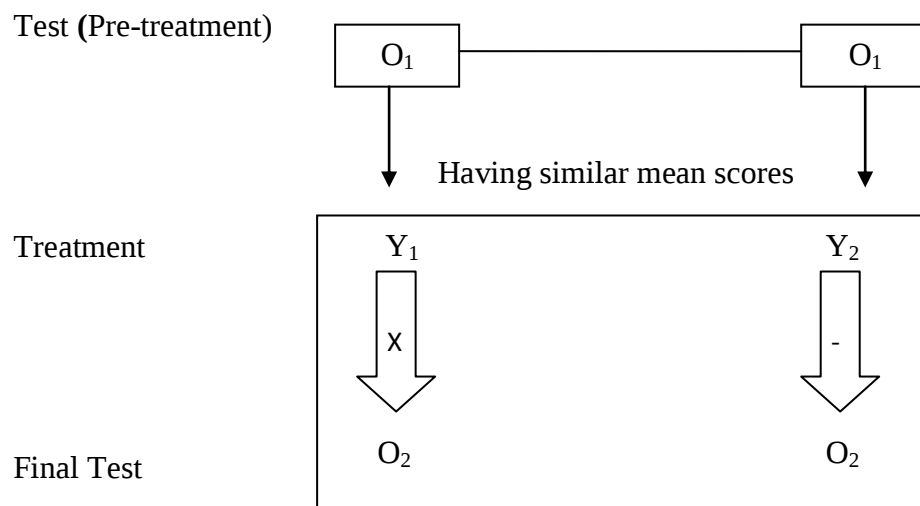


Figure 3.1
The Procedure of Experimental Research Design

Explanation:

O_1 : Test (before applying the treatment)

Y_1 : Experimental Group

Y_2 : Control Group

X : Treatment (applying response journal writing)

⁴² Donald Ary, *Introduction to Research in Education* (USA: Wadsworth, 2010), 316

O₂ : Test (after applying the treatment)

In doing this research, it needed two classes as the sample that became the control and experimental groups. Here, the selection of the classes was based on the recommendation of the English teacher at SMA Muhammadiyah 1 Babat. To make sure that both groups had the similar writing skill, they were given a test before the treatment was applied. If the result showed that their writing skill was similar, the next steps of this research could be continued. Yet, if their writing ability was not similar, it had to look for another group that had similar writing skill. Besides, the two classes that chosen as the samples must have the same schedule, the same material and also they are taught by the same teacher. Next, after finding the groups that had similar writing skill and some variables as stated before, the treatment that was response journal writing was applied to the experimental group, while another group was taught as usual without treatment. Then, both groups got a test after the application of response journal writing. It was to measure the students' writing skill after getting treatment and to know whether response journal writing strategy is more effective to enhance students' writing skill than traditional strategy or no.

B. Population and Sample

The important part of a research is population and sample. Population is all subjects that have certain quality or characteristics which

is determined by the researcher. Meanwhile, sample is a part of the number of characteristics owned by the population⁴³. As stated by Ary, there are three steps in sampling.⁴⁴ Those are: population, accessible population, and sample.

1. Population

The first step in sampling is the identification of the target population. It is the large group to which the researcher wishes to generalize the result of this research.⁴⁵ The target population of this research was the students of senior high school widely in Indonesia who have the same problem as the researcher has found.

2. Accessible Population

From the target population, the accessible population was then determined. The selection of accessible population was conducted because it is difficult, expensive, and time-consuming to research the total population of the students of senior high schools in Indonesia. Here, SMA Muhammadiyah 1 Babat was selected as the accessible population. The reason why this school was chosen as the accessible population was this school has the characteristics as the total population have. Based on the informal interview with ten students in my preliminary study, the students in this school still have difficulties in English, especially writing. They do not know what have to be

⁴³Sugiyono, *Metode Penelitian Kuantitatif dan Kualitatif* (Bandung: Alfabeta, 2010), 80-81

⁴⁴ Donald Ary, *Introduction to Research in Education* (USA: Wadsworth, 2010), 149

⁴⁵ Ibid.,

written. They also lack of vocabulary. In addition, they seldom practice to write.⁴⁶ Whereas this school is accredited “A” and often wins international science Olympiad.⁴⁷ Yet, when they join Language Olympiad, they seldom wins the Olympiad. Perhaps, it is because the English skill of the students is not too good, because they still have difficulties in writing as stated above.

3. Sample

The sample of this research was the tenth graders of SMA Muhammadiyah 1 Babat, Lamongan. There are five classes. Then, two classes were chosen as sample classes which were taken from the teacher suggestion.

C. Research Hypothesis

This research was conducted to test the hypothesis which consists of two major hypotheses. They are null hypothesis and alternative hypothesis.

1. Null hypothesis: Response journal writing strategy is not more effective to enhance students' writing skill than traditional strategy.
2. Alternative hypothesis: Response journal writing strategy is more effective to enhance students' writing skill than traditional strategy.

⁴⁶ Informal Interview with ten students of SMA Muhammadiyah 1 Babat, Lamongan on Saturday, 23 March 2013. At 10.00 a.m.

⁴⁷ Badan Akreditasi Propinsi Sekolah/Madrasah Provinsi Jawa Timur. (<http://www.ban-sm.or.id/provinsi/jawa-timur/akreditasi>), accessed on Wednesday, 24 April 2013

D. Variable of the Research

Variable is a construct or a characteristic that can take on different values or scores⁴⁸. There are two variables in this research. They are independent and dependent variable.⁴⁹

1. Independent variable

Independent variable is a variable which is selected and manipulated by the experimenter. In this research, response journal writing is the independent variable.

2. Dependent variable

Dependent variable is the variable which is the effect of the changes is observed by the researcher, but it is not manipulated. The dependent variable is the students' writing skill.

E. Research Procedure

In this research, procedure is the steps that were done in this research. There were some steps in this research. They were test (pre-treatment), treatment 1, treatment 2 and final test. To answer the research questions of this study, it used the result of final test of both groups. Test (pre-treatment) was conducted before applying treatment, while final test was conducted after treatment. The research schedule is presented on the following table.

⁴⁸ Donald Ary, *Introduction to Research Education*, (USA: Nelson Education, 2010), 37

⁴⁹ Ibid., 266

Table 3.1
The Research Schedule

No	Experimental Group		Control Group	
	Date	Material	Date	Material
1	25 th July	The first meeting: Treatment 1 Taught recount text using response journal writing by giving the students an articles about someone's biography.	25 th July	The first meeting: Taught recount text by using Lks
2	29 th July	The second meeting: Treatment 2 Taught recount text using response journal writing by showing the students a video about someone's experience.	29 th July	The second meeting: Taught recount text by using Lks
3	1 st August	The third meeting: Final test	1 st August	The third meeting: Final test

Before applying the activities above, everything that needed in the teaching process was prepared, such as prepare an appropriate material and organize teaching procedures in the experimental and control group. In addition, before teaching writing using response journal writing, the test was conducted to both of the group. It was to know the students' writing skill before the use of response journal writing whether it was similar or no. If the result of the test was similar, the next step of this research could be continued. Yet, if the result of the test was not similar, it had to find another group which its students had the similarity in writing skill. After finding the groups that have similar writing skill, the treatment was

applied to the experimental group. Meanwhile, the control group was taught as usual using LKS. Yet, both groups are taught about the same material. Based on the curriculum of tenth grade, there are five types of the text. Those are recount text, descriptive text, narrative text, news item and procedure text. Yet, in this study, recount text was chosen as the suitable text for the application of response journal writing which asks the students to retell and give response about what they have read, viewed, or listened.. It is because recount text is a text which tells the readers about someone's story, action or activity.⁵⁰

The more explanation of the procedure of this research were presented as follows:

1. The Experimental Group

There are three meetings in experimental group. In the first and second meeting, the students were taught using treatment in the teaching process. In the last meeting, they got final test.

The treatments of this research were response journal writing. Response journal writing was assumed to help the students to get more practices in writing. Besides, they would get many vocabularies, such as from the articles that they have read, video that they had watched, and others. In this technique, the students were asked to read, watch, or listen something. Then, they were asked to write about

⁵⁰ Recount Text – Penjelasan dan Contoh (<http://www.englishindo.com/2012/01/recount-text-penjelasan-contoh.html?m=1>) accessed on Wednesday, 1 January 2014.

what they had read, watched, or listened and they had to write their response about it as well.

a. The first meeting

The first meeting was held on 25th July, 2013. In this time, the students were taught using a treatment that was response journal writing.

The first meeting was started with the greeting and praying. Then, the teacher shared what would be learned on that day. Next, the teacher explained about the material that was recount text. Then, the teacher gave the students an article about someone's biography. The teacher asked the students to read it. Then, the teacher asked the students to retell what they had read and gave their personal response about it in the form of written text. Next, the teacher and the students concluded the lesson on that day. Then, the teacher closed the class with praying and greeting.

b. The second meeting

The second meeting was held on 29th July, 2013. The students were taught using response journal as well.

This meeting began with greeting and praying. Then the teacher reviewed what they had learned in the previous meeting and added information about the material that has not been given in the previous meeting. The material was about past tense. After that, the teacher showed video about someone's experience. The teacher

asked the students to watch it. Then, the teacher asked the students to retell the events in the video and gave their personal response about it in the form of written text using their own words. Next, the teacher and the students concluded the lesson on that day. Then, the teacher closed the class with praying and greeting.

c. The third meeting

The third meeting was held on 1st august, 2013. In this meeting, the students got final test. The test was subjective test that was making a composition. It was to know their writing skill after getting treatments whether it was different or no from the control group which were taught without treatments.

2. The Control Group

There were three meetings in the control group. In the first and second meeting, the control group was taught as usual without treatment. Then, in last meeting, they got final test.

a. The first meeting

The first meeting of control group was held on 25th July, 2013. In this meeting, the students were taught as usual. The teacher explains the material, then asks the students to write.

The class was started with the greeting and praying. Then, the teacher shared about what would be learn on that day that was about recount text. The teacher asked the students to open the book and gave some explanation based on the subject. Teacher asked the

students to do the task on the book. Then, the teacher discussed it. After that, the teacher closed the class by praying and greeting.

b. The second meeting

The second meeting was held on 29th July, 2013. In this time, the students were taught as usual. The teacher reviewed the previous material and added information about the material that has not been given in the previous meeting. The teacher explained about past tense. Then, the teacher asked the students to make a recount text with free topic.

c. The third meeting

The third meeting was held on 1st August, 2013. In this meeting, the students got final test. The test was the same as experimental group got that was subjective test by making a composition. It was to know their writing ability whether it was different or no from the experimental group.

F. Data Collection Techniques

In this research, the data was collected from the tests. Before getting the treatment, both control and experimental group got a test. The test was subjective test, that was making a composition. It was to measure the students' writing skill before getting treatments. In addition, it was aimed to know whether both of the groups had similar skill before the applying of response journal writing. Then, after applying response journal

writing, the final test was given to the experimental group and control group. It was to know the students' writing skill after getting treatment. The final test was also to determine whether the use of response journal writing strategy is more effective to enhance students' writing skill than traditional strategy.

G. Instrument of the Research

Research instrument is needed to collect the data. The instrument that was used in this research was writing test. The type of the test was subjective one that was making English composition.

The test as an instrument needs to be valid and reliable. As stated by Weigle that a good instrument should be valid and reliable. Therefore, it is important to know the validity and the reliability of the test. The concept of validity and reliability are discussed below:⁵¹

1. Validity

The test can be said a valid test if it measures what it is intended to measure.⁵² Hughes stated that there are three types of validity that are face validity, criterion-related validity, and content validity.⁵³ Here, the content validity must be used. It was because the test should be

⁵¹ Sara Cushing Weigle, "Assessing Writing", (Cambridge: Cambridge University Press. 2002), 49

⁵² Arthur Hughes, "Testing for Language Teachers", (Cambridge: Cambridge University Press. 2003), 26

⁵³ Ibid.,

constructed as the representative of the course. According to English standard competence, the tenth graders are supposed to be able to produce an essay by using written words accurately, fluently and acceptable to communicate in the form of recount, narrative, and procedure text.⁵⁴ In this research, recount text was used, because it related to standard curriculum. In this test, the students of both experimental and control were asked to compose a recount text about “your experience”. The topic chosen was appropriate to test the tenth graders’ writing skill of recount text. Besides, the instrument was validated by the English teacher in the school as well. Finally, the test can be said as a valid one after the English teacher agreed that the test represented the curriculum.

2. The reliability of the test

Reliability is a necessary characteristics of any good test. Creswell, cited in Wahyu, stated that the test is called to be reliable if the scores from an instrument are stable and consistence.⁵⁵ In measuring whether the test is reliable or not, the formula of product moment was used.⁵⁶ The data was calculated by using manual calculation as follows:

⁵⁴Standard Isi Bahasa Inggris SMA. <http://aristwn.staff.stainsalatiga.ac.id/wp-content/uploads/sites/3/2013/01/Standar-Isi-BInggris-SMA.pdf> (accessed on 15 august 2013. At 00.52 a.m)

⁵⁵ Dwi Wahyu Sugiarti, *The Effectiveness of Clustering Technique in Teaching Writing at MTs Raudlatul Ulum* (Surabaya: State Institute for Islamic Studies Sunan Ampel, 2012), 26

⁵⁶ Sugiono, *Statistik Untuk Penelitian*, (Bandung: Alfabeta, 2007), 357

$$R_{xy} = \frac{N\sum XY - (\sum X)(\sum Y)}{\sqrt{\{N\sum X^2 - (\sum X)^2\} \{N\sum Y^2 - (\sum Y)^2\}}}$$

Explanation:

R_{xy} : the coefficient of correlation between variable X and Y.

X : test score of first try out.

Y : test score of second try out.

N : the number of the students.

Based on Brown, the criteria to interpret the result is as follows:⁵⁷

Table 3.2
Reliability of the test

Scale	Level of Reliability
0.00-0.20	Not reliable
0.20-0.40	Less Reliable
0.40-0.60	Reliable enough
0.60-0.80	Reliable
0.80-1.00	Very Reliable

To know whether the test is reliable or no, try out was applied to measure it. The try out was done to one of the classes of the tenth graders which was not the class that used as the sample. It was X-3

⁵⁷ Dwi Wahyu Sugiarti, *The Effectiveness of Clustering Technique in Teaching Writing at MTs Raudlatul Ulum*, (Surabaya: State Institute for Islamic Studies Sunan Ampel Surabaya, 2012). 26

class. The try out was done twice. The calculation of try out is presented in table 3.3.

Table 3.3
Try-out scores

Subject	(Rater) X_1	(Rater) X_2	X_1^2	X_2^2	$X_1.X_2$
1	70	76	4900	5776	5320
2	76	76	5776	5776	5776
3	64	70	4096	4900	4480
4	76	70	5776	4900	5320
5	58	64	3364	4096	3712
6	52	58	2704	3364	3016
7	70	70	4900	4900	4900
8	64	64	4096	4096	4096
9	76	70	5776	4900	5320
10	52	58	2704	3364	3016
11	76	70	5776	4900	5320
12	64	64	4096	4096	4096
13	76	82	5776	6724	6232
14	88	82	7744	6724	7216
15	76	70	5776	4900	5320
16	70	70	4900	4900	4900
17	64	70	4096	4900	4480
18	58	64	3364	4096	3712
19	82	88	6724	7744	7216
20	64	64	4096	4096	4096
21	76	76	5776	5776	5776
22	70	64	4900	4096	4480
23	76	76	5776	5776	5776
24	64	64	4096	4096	4096
25	58	64	3364	4096	3712
26	64	70	4096	4900	4480
Σ	1784	1814	124448	127892	125864

The result above was then calculated using the following formula to know the reliability of the test.

$$r_i = \frac{n \sum X_i Y_i - (\sum X_i)(\sum Y_i)}{\sqrt{[n \sum X_i^2 - (\sum X_i)^2][n \sum Y_i^2 - (\sum Y_i)^2]}}$$

$$r_i = \frac{26 \sum 126632 - (1784)(1826)}{\sqrt{[26(124448) - (1784)^2][26(129500) - (1826)^2]}}$$

$$r_i = \frac{3292432 - 3257584}{\sqrt{[55992][32724]}}$$

$$r_i = \frac{34848}{\sqrt{1734110208}}$$

$$r_i = \frac{34848}{41642,64}$$

$$r_i = 0,8$$

From the calculation above, the result is 0,8. Based on the table of criteria of the reliability of the test, it can be known that the calculation with the value 0,8 is reliable. Thus, it could be used for the instrument of this research.

3. Scoring

To know the skill of the students, it was needed to do assessment to their work. It was to know whether the students had

mastered what have they learned or not. This research used EFL (English as Foreign Language) composition profile as scoring guide. Yet, to make understandable, it had been modified. As stated in Ristyana that the scoring technique can be modified based on the specific assessment rubric.⁵⁸ The EFL composition profile based on Reima Al-Jarf is as follows.⁵⁹

Table 3.4
Writing Measurement

	3 (Excellent)	2 (Average)	1 (Poor)
Content (C)	The content of the paragraph related to the assigned topic; thorough development details.	Most of contents support the topic but lack details.	The contents do not support the topic; unrelated to the topic sentence, unintelligible, OR not enough to evaluate.
Organization (O)	Orientation section provides all the important information (setting and introduce the participants); all necessary background stated; written in a coherent story; reorientation closures the events and relates to the topic.	The orientation part is quite good; most of parts are chronological and coherent; there is an effort to write reorientation.	The orientation part is less or no; there is no background; the story is not coherent, and indiscriminate; there is no reorientation.

⁵⁸ Ristyana Primadani, *the effectiveness of using short note in teaching writing at smp negeri 1 bangsal mojokerto* (Surabaya: English Education Department IAIN sunan ampel surabaya, 2011), 31.

⁵⁹ Asian EFL Journal. Professional Teaching Articles. Vol. 51 April 2011. www.asian-efl-journal.com/PTA/April-2011-Al-Jarf.pdf (Accessed on 4 July 2013)

Vocabulary (V)	effective word choice and usage; meaning is understandable.	Occasional errors of effective word choice and usage but meaning not obscured.	Essentially translation; little knowledge of English vocabulary; meaning confused or obscured.
Grammar (G)	Fewer than 4 errors in grammar. Correct use of tense, action verb, article, pronoun, and preposition.	Between 5-9 errors in grammar. Errors do not affect legibility and understanding.	More than 10 grammatical mistakes.
Mechanics (M)	Paragraph has 4 errors in mechanics (punctuation, capitalization, and spelling)	Paragraph has 5-9 errors in mechanics (punctuation, capitalization, and spelling)	Paragraph has more than 10 errors in mechanics (punctuation, capitalization, and spelling)

The total score was calculated using this formula:

$$[C + O + V + G + M] \times 6 + 10 = \text{__ (total)}$$

H. Data Analysis Procedures

The data in this research was test scores. The students in the control and experimental group got test before and after the treatment. Test before the treatment was to know whether both groups had similar score in writing skill. Meanwhile, the test after the treatment was to know whether the treatment that was response journal writing strategy was more effective to enhance students' writing skill than traditional strategy.

The results of the test before the treatment both of the group are presented below.

1. The Result of the Test of Control Group (Pre-treatment)

Table 3.5
The Result of the Test of Control Group
(pre-treatment)

Component	The result of Experimental Group						
	C	O	V	G	M	Σ	Total Score (conversion)
Total	61	57	54	47	44	263	1838
Mean	2,34	2,19	2,07	1,8	1,69	10,11	70,69

2. The Result of the Test of Experimental Group (Pre-treatment)

Table 3.6
The Result of the Test of Experimental Group
(pre-treatment)

Component	The result of Experimental Group						
	C	O	LU	V	M	Σ	Total Score (conversion)
Total	64	60	56	40	47	267	1862
Mean	2,46	2,3	2,15	1,53	1,8	10,26	71,61

Furthermore, the total score and the mean of the score are described in the following figure in order to make the reader easy to identify whether both group had similar score in writing skill.

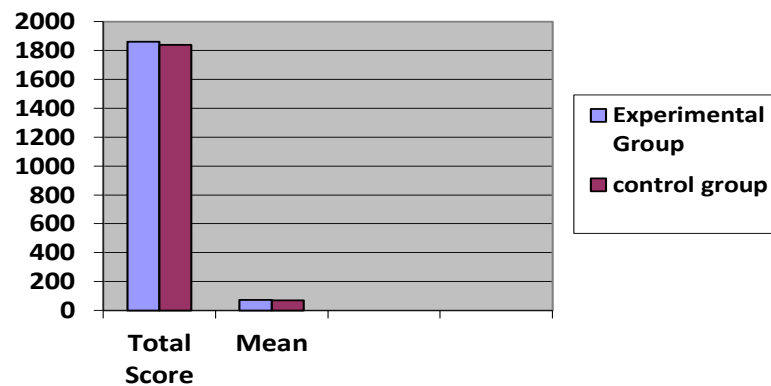


Figure 3.2
The total score and the mean of both group (Pre-treatment)

From the result above, it shows that the students' writing skill was similar before they got treatment. The mean of the students' score in both groups were similar enough. The mean of control group is 70,69, while experimental group's mean is 71,61. Therefore, both groups can be used as the subject in this research.

In analyzing the data, the statistical analysis was used. It was comparing the mean of the result of final test both control and experimental group. The analyzing was only from the result of final test, because both of the group had already had similar mean in the result of test before treatment. Therefore, to know the students' writing skill between the students who got the treatments and those who did not was by comparing the mean of the result of their final test. Then, the result of comparing the mean were used to answer the research problem. In

addition, to check whether the result from comparing the mean was coincidental or no, the statistical analysis by using t-test was conducted. Yet, before using t-test, the normality and homogeneity test had to be done as the requirement. The procedures of normality and homogeneity test were presented below.

1. Normality Test

Normality test is a test that used to determine whether a data set is well-distributed or not. In this research, the purpose of it is to check whether the test scores of the experimental and control groups have normal distribution or not. In normality test, there are six steps.⁶⁰ They are:

- a. determine the number of intervals class. For normality using Chi Square test, the number of interval is 6. This is appropriate with 6 fields in Standard Normal Curve.
- b. determine the limitation of interval class, the formula is,

$$\begin{aligned}
 \text{The long interval class} &= \frac{\text{Biggest data} - \text{smallest data}}{6 \text{ (the number of interval class)}} \\
 &= \frac{94 - 58}{6} \\
 &= 6
 \end{aligned}$$

- c. arrange into a frequency distribution table

The result of normality test of the test scores both groups is presented in the table 3.7 below.

⁶⁰ Sugiono, *Statistik untuk Penelitian* (Bandung: Alfabeta, 2010), 80

Table 3.7
The Calculation of Normality Test

INTERVAL	f_0	f_h	$f_0 - f_h$	$(f_0 - f_h)^2$	$\frac{(f_0 - f_h)^2}{f_h}$
58 – 64	3	1	2	4	4
65 – 71	10	7	3	9	1,28
72 – 78	19	18	1	1	0.05
79 – 85	13	18	-5	25	1,38
86 – 92	6	7	-1	1	0,14
93 – 99	1	1	0	0	0
TOTAL	52	52	0	40	6,85

Explanation:

f_0 = Frequency / the number of data from the result of pretest

f_h = The number / frequency of the expected (percentage area of each field multiplied by n)

$f_0 - f_h$ = The differences between f_0 dan f_h

d. Calculating F_h (the frequency of the expected)

The calculation of F_h is based on the percentage area of each field in normal curve, then multiplied by the number of individuals in the sample, that is 52. The result of F_h is presented below.

- The first line : $2,7 \% \times 52 = 1,4$ become 1
- The second line : $13,53 \% \times 52 = 7,03$ become 7
- The third line : $34,13 \% \times 52 = 17,7$ become 18
- The fourth line : $34,13 \% \times 52 = 17,7$ become 18
- The fifth line: $13,53 \% \times 52 = 7,03$ become 7
- The sixth line: $2,7 \% \times 52 = 1,4$ become 1

After calculating F_h , then include the value of F_h to the table columns F_h , and then calculate the value of $(f_o - f_h)^2$ and

$$\frac{(f_o - f_h)^2}{f_h}.$$

- e. compare the value of $X_{\text{arithmetic}}$ with X_{table}

If $X_{\text{arithmetic}}$ smaller than X_{table} means normal distribution of data, and when larger otherwise normal. $X_{\text{table}} = 11.070$

- f. make conclusion

From the calculation, it was found that $X_{\text{arithmetic}}$ was 6.85, while X_{table} was 11.070 with $df = 5$ and $\alpha = 0.05$. It shows that $X_{\text{arithmetic}}$ is smaller than X_{table} . It indicates that the data has normal distribution.

2. Homogeneity Test

Homogeneity test is a test that used to determine whether the data is from the same variance or not. In this research, the purpose of it is to check whether the test scores of both groups have same variance or not. To test the homogeneity of the test scores in this study, the following procedure was followed.

- a. Find the biggest variant score and the smallest variant score, the formula is:

$$\begin{aligned} F_{hit} &= \frac{S1^2}{S2^2} \\ &= \frac{49.18}{46.96} \\ &= 1.04 \end{aligned}$$

Explanation:

S_1^2 = the larger of variance

S_2^2 = the smaller of variance

b. Find the F score

dkpembilang : $26-1 = 25$

dkpenyebut : $26-1 = 25$

$F = (0.05 ; 25.25) = 1.96$

c. Make conclusion

From the calculation above it was found that F-value was 1.04 and F-table was 1.96. It shows that F-value is smaller than F-table. It indicates that the data is homogenous. So, the comparative test can be calculated using t-test.

3. Test-t

The aim of t-test was to know whether response journal writing strategy is more effective to enhance students' writing skill than traditional strategy. Based on the key term in this research, more effective means the students who were taught using response journal writing strategy got higher score than those who were not.

To answer the question above, it should have an alternative hypothesis (H_a) and null Hypothesis (H_0).

H_a : Response journal writing strategy is more effective to enhance students' writing skill than traditional strategy.

H_0 : Response journal writing strategy is not more effective to enhance students' writing skill than traditional strategy.

Next, the students' score of the test was calculated using the formula bellow:

$$t = \frac{x_1 - x_2}{\sqrt{\left\{ \frac{(n_1 - 1)S_1^2 + ((n_1 - 1)S_2^2)}{n_1 + n_2 - 2} \right\} \frac{1}{n_1} + \frac{1}{n_2}}}$$

Explanation:

X_1 : the mean of sample 1

X_2 : the mean of sample 2

S_1^2 : variance sample 1

S_2^2 : variance sampel 2

n_1 : number of sample 1

n_2 : number of sample 2