

CHAPTER III

RESEARCH METHOD

In this chapter, the writer discussed the research methodology. It involves research design, the population sample and sampling of the research, research variable, research instrument, validity and reliability test, data collecting method, and data analysis.

A. Research Design

According to Creswell (2012:20), research designs can be interpreted as research process that involves data collection, data analysis, and report writing. The researcher used quantitative research approach to conduct this research. Creswell (2012: 13), defines when accumulating the numeric data in large number of community, the researcher used instrument with questions and responses.

Pre-experimental research design was used to investigate the effectiveness of Dictogloss Technique toward students' writing ability in recount text at the tenth graders of MA Darul Hikmah Tawang Sari Kedungwaru. Perry as cited in Arifah (2019) defined this research design is the overall structural design used include the variables, techniques, treatments and others. In this research, the treatment was conducted by using Dictogloss Technique to teach the recount text. In this case, one class was used as control and experimental group. It is the reason of the researcher used pre-experimental design. The pre-test and post-test were delivered to take the students' writing score before and after they were taught through Dictogloss Technique.

Moreover, the authority was not owned by the researcher when selecting the sample. Ary et al (2010:302) defined that random assignment of subject to groups was also not owned by pre-experimental design which aimed to control different variables. This research was an experimental study about the effectiveness of Dictogloss Technique to the students' writing skill in recount text at the tenth graders of MA Darul Hikmah Tawang Sari Kedungwaru. The effectiveness of using Dictogloss Technique could be known after finding the significant differences by comparing the pre-test and post-test.

The independent variable was Dictogloss Technique and the dependent variable was the students' writing ability in the recount text. Dependent variable was affected by independent variable. To discover that dependent variable was affected well, the researcher used pre-test and post-test to measure. The illustration of the research design in this research was adapted from Ary et. al. (2010:304), as follow:

Table 3.1: The Illustration of Research Design

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

Note:

Y₁ : Students' writing in recount text before taught by using Dictogloss Technique

X : Dictogloss Technique

Y₂ : Students' writing in recount text after taught by using Dictogloss Technique.

1. Pre-Test

Pre-test was presented to the students because it aimed to measure the students' writing in recount text before taught by using Dictogloss Technique. The pre-test had done on March 4th, 2020

2. Treatment

The first treatment had done on March 11th, 2020. The researcher delivered the material of recount text and the introduction of Dictogloss Technique. The second treatment had done on March 18th, 2020; the researcher gave one text about recount text under the title "My Experience Met with Taufik Hidayat". The researcher requested the students to observe the text which had been given to them. They had to observe and elaborate the structure of the text. After observing and interpreting the text, the researcher reminded about the learning activities that would be carried out through Dictogloss Technique and formed several groups consisting of 4 students.

3. Post-Test

Post-test was given after the students got treatment taught by using Dictogloss technique. Post-test had done on March 25th, 2020. Post-test aimed to assess the students' writing skill in recount text after being instructed by using Dictogloss Technique.

B. Population, Sample and Sampling

1. Population

Astuti (2017) stated that population was interest group which the researcher desired the outcome of the research was generalized. Then, it was also supported by Ary et. al.'s ideas (2010:148), a population was assigned as all member of subject, events or the class of people that defined well. So, it could be resumed that population was all subject of the research.

The population of this research was the tenth graders of MA Darul Hikmah Tawang Sari Kedungwaru that consisted of 103 students. The tenth grader of MA Darul Hikmah Tawang Sari Kedungwaru consists of 4 classes; there are XA IPA, XA IPS, XB IPA and XB IPS. Based on their interest, the class was divided into 2 types; there were (XIPS) and (XIPA).

Table 3.2: The Population of Research

No	Class	Gender	
		Male	Female
1	XA IPA	17 students	
2	XB IPA		31 students
3	XA IPS	29 students	
4	XB IPS		26 students
	TOTAL	103 students	

2. Sample

According to Ary et. al (2010: 148) has defined that “ sample is portion of population”. Sample is component group of population which designed to be generalized and learned (Creswell, 2012: 142). Another definition, Ma'mun (2018) stated that the sample as minor group which observed while the population as major group which generalized. From definition above, it could be summed up that sample as part of population which the researcher supervised it.

In this research, the researcher chose MA Darul Hikmah Tawang Sari Kedungwaru because of mission of Darul Hikmah to organize the education process to produce high quality students by implementing a bilingual system to the students; those are Arabic and English language. It was a good criterion to choose this school. According to the Vice Headmaster of Curriculum in MA Darul Hikmah recommended class XB IPA as a sample of population. So, the researcher was purposed to know how the quality of students' progress especially in their English proficiency. Moreover, the researcher wanted to apply the Dictogloss Technique in learning activity in the classroom. Besides, the English teacher who handled XB IPA suggested taking this class as subject of a sample. In addition, students had background English knowledge in their activity because of this school implemented bilingual system. Besides, the researcher selected the tenth graders as a sample because they received the materials of recount text which was appropriate to this research.

Table 3.3: The Sample of Research

Sample of XB IPA	Total participants
31 students	31 students

3. Sampling

Arifah (2019) stated that non-probability sampling is known had the types of sampling; one or other is purposive sampling. In this type, the researcher selected the subjects to establish confident that the elements had specific characteristic which relevant to the research. According to Ary et. al. (2010:156), judgment sample is also known as purposive sampling where the sample of element assessed to be specific which selected from the population. The researcher used purposive sampling because of the class consisted similar characteristic, their English proficiency is average. Besides, the purposive sampling was simple and suitable for this research. In addition, the English teacher of XB IPA who handled class gave the recommendation to use this class because the students had same level of knowledge in English proficiency.

C. Research Variable

A variable is known as characteristic of a personal that the researcher could assess the different personal or group studied (Creswell, 2012). There are two variables in this research which explained as follows:

1. Independent Variable (X)

An independent variable is known as characteristic that affects to dependent variable (Creswell, 2012:116). The students' writing ability by using Dictogloss Technique is independent of this research.

2. Dependent Variable (Y)

A dependent variable is known as characteristic that influenced by the independent variable (Creswell, 2012:115). Dependent variable of this research was students' writing ability in recount text.

D. Research Instrument

Research instrument is important equipment which is applied the researcher to gather the data. According to Creswell (2012:14), an instrument is a tool to measure, observe, or document the quantitative data. The researcher used test to gather the data. Test is equipment of stimulant which provided to personal in order to obtain replication which numeral score could be granted, Ary et. al. (2010:201). Test was used to measure the students' writing before and after being instructed by using Dictogloss Technique.

Students were presented two types of the test. First test was pre-test which distributed on March 4th, 2020 and the second test was post-test which distributed on March 25th, 2020. The test was created based on the material was presented in the class. In making test, it must be considered to the core and basic of curriculum. The test item was concerned with student's writing ability. The design of the test was an essay of recount text.

To know the result of the test, the researcher used scoring rubric guide.

According to (Heaton, 1975), the scoring rubric as follows:

Table 3.4: Scoring Rubric for Writing Recount

Aspect of Writing recount	Score	Description
Content	50	Excellent to very good: clear understanding the task and the content is clear
	40	Good: understanding of the task, well developed
	30	Fair: a weak understanding, thinly developed
	20	Inadequate: little or no understanding of the task minimally developed
	0	Unacceptable: blank, off topic, illegible
Lexico grammatical features	30	Excellent to very good: follows the rules that build a text, such as: concentrate on specific participants, uses of material processes, circumstance of time and place, use past tense and focus on temporal sequence
	20	Good: it generally follows the rules that build a text
	10	Fair: enough follow the rules that build a text
	5	Inadequate: not follow the rules
	0	Unacceptable: Blank of topic, illegible
Generic structure	20	Excellent to very good: follows the rules that build a text, such as: orientation, series of events and reorientation
	15	Good: generally, it follows the rules that build a text
	10	Fair: enough follow the rules that build a text
	5	Inadequate: not follow the rules
	0	Unacceptable: blank of topic, illegible

E. Validity and Reliability

1. Validity Testing

In experimental research, the researcher had to check the validity and reliability of the instrument. The test was used before and after taught by

Dictogloss Technique. Validity and reliability, both of them are the notable part in increasing and assessing the test. A validity as an instrument to what extent can be measured, Ary et al. (2010:225).

Kinds of validity are divided into content of validity, criterion-related validity, construct validity and face validity. The researcher used the content of validity and construct validity to know whether the test has a good validity.

a. Content Validity

Content validity is the test which involved with the objective of the test. Ary et al (2010:226) stated that to have a content validity, the instruments are delegate of some established universe or domain of the content. A test could be mentioned a good test when the test had the content validity. The test was established by the researcher based on the course objective on syllabus of the tenth grade of Senior High School.

Table 3.5 Content Validity

The Material	Recount Text
Standard Competence	3. Memahami, menerapkan, menganalisis pengetahuan faktual, konseptual, prosedural berdasarkan rasa ingin tahunya tentang ilmu pengetahuan, teknologi, seni, budaya, dan humaniora dengan wawasan kemanusiaan, kebangsaan, kenegaraan, dan peradaban terkait penyebab fenomena dan kejadian, serta menerapkan pengetahuan prosedural pada bidang kajian yang spesifik sesuai dengan bakat dan minatnya untuk memecahkan masalah. 4. Mengolah, menalar, dan menyaji dalam ranah konkret dan ranah abstrak terkait dengan pengembangan dari yang dipelajarinya disekolah secara mandiri, dan mampu menggunakan metode sesuai kaidah keilmuan.

Basic Competence	3.9 Menganalisis fungsi sosial, struktur teks, dan unsur kebahasaan pada teks <i>recount</i> sederhana tentang pengalaman/kejadian/peristiwa, sesuai dengan konteks penggunaannya 4.13 Menangkap makna dalam teks <i>recount</i> lisan dan tulis sederhana 4.14 Menyusun teks <i>recount</i> lisan dan tulis sederhana tentang pengalaman/ kegiatan/ kejadian/ peristiwa, dengan memperhatikan fungsi sosial, struktur teks, dan unsur kebahasaan, secara benar dan sesuai dengan konteks
Indicator	1. Siswa dapat mengidentifikasi fungsi sosial, struktur teks, dan unsur kebahasaan pada teks <i>recount</i> sederhana 2. Siswa dapat menyusun <i>recount</i> text sederhana tentang pengalaman/ kegiatan/ kejadian/ peristiwa dengan benar.

From the table above, it could be summed up that the test had the content validity because it was convenient with course objective predicated on the syllabus of the tenth grade of Senior High School.

b. Construct Validity

According to Latif (2016), the construct defined could lead to what tasks the instrument requires students to do. In this research, the researcher applied the construct validity in conducting writing test based on the design of writing paragraph in *recount* text with the purpose to measure students' writing of *recount* text.

The result of validity from the English teacher is valid. From the validation of instrument, it could be known that the question was suitable with the blue print, the clear instruction and using the correct language, it can be seen in the appendices (*appendix 2*).

2. Reliability Testing

Ary et. al (2010:236-237) defined the reliability of a assessing the instrument is the degree of consistency which it measure whatever it is measuring. The reliability of the test or instrument could be known from the outcome of conducting try out in different class, the class which used by the researcher is XB IPS. The researcher used IBM SPSS 23.0 version and using the formula of Alpha Cronbach to find out the reliability of test instrument. This research applied the inter-rater reliability where the result of the test was scored by two scorers or two raters to obtain the reliability of coefficient.

According to Ridwan as cited in Arifah (2016), five classes of the criteria of reliability instrument will be defined as follows:

1. If the *alpha Cronbach* score was 0.00-0.20 it means *less reliable*
2. If the *alpha Cronbach* score was 0.21-0.40 it means *rather reliable*
3. If the *alpha Cronbach* score was 0.41-0.60 it means *enough reliable*
4. If the *alpha Cronbach* score was 0.61-0.80 it means *reliable*
5. If the *alpha Cronbach* score was 0.81-1.00 it means *very reliable*

Based on the try-out of the instrument had done on March 3rd, 2020 at tenth grade. The result of the reliability score of the instrument could be seen in the table (3.6 and 3.7)

Table 3.6 Reliability Statistics of Pre-test**Reliability Statistics**

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.738	.749	2

From the table of 3.7 above, it showed that Cronbach's Alpha score of pre-test was 0.738. It refers to that instrument of the test was categorized into reliable because the Alpha Cronbach's score was between 0.61-0.80.

Table 3.7 Reliability Statistics of Post-test**Reliability Statistics**

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.655	.656	2

From the table of 3.7 above, it showed that Cronbach's Alpha score of post-test was 0.655. It refers to that instrument of the test was categorized into reliable because the Alpha Cronbach's score was between 0.61-0.80.

Based on the explanation table 3.6 and 3.7 above, it could be summed up that both instruments pre-test and post-test categorized reliable.

F. Normality and Homogeneity Testing

1. Normality Testing

To find out whether the data was normal distribution or not the normality testing was established. The calculation of normality testing in this research used IBM SPSS 23.0 version with the formula One-Sample Kolmogorov-Smirnov Test by the value of significance $\alpha = 0.05$. Standard determinations in assessing normality testing 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. Homogeneity Testing

To find out whether the data had a homogeneous variance or not homogeneity testing was established. In assessing homogeneity, the researcher applied IBM SPSS 23.0 version. The value of significance (α) was 0.05. Standard determinations in assessing e homogeneity testing as follows:

- a. If the significance value > 0.05 , the data distribution was homogeneous.
- b. If the significance value < 0.05 , the data distribution was not homogeneous

G. Data Collection Method

The data collection method was important aspect how the researcher obtain the data. The researcher accumulated the data from the students' pre-test and post-test score. The pre-test aimed to find out the students' writing ability before getting the different treatment. While, the post-test aimed to find out the

students' writing ability after getting the treatment. The technique of data collection method as follow:

1. Pre-test

Pre-test was distributed on March 4th, 2020. This test was organized to measure students' writing before the treatment was presented by the researcher. The students were given a topic about recount text "A Trip to Borobudur Temple". The students were provided 45 minutes to compose the recount text with their own language without opening dictionary during arranging the sentence. After finishing the test, the researcher measured the students' score by using scoring rubric to know the result of pre-test before taught by using Dictogloss Technique. This test is to know the weakness and background knowledge about recount text. In addition, the pre-test would be the evaluation before using Dictogloss Technique for writing in recount text which practiced in the class.

2. Post-test

The second test was post-test which distributed on March 25th, 2020. This test was to assess the students' writing skill after using the treatment with Dictogloss Technique. The post-test is presented in the form of written test with the topic "Joining the Traditional Dance Competition". The students were provided 45 minutes to composing the recount text with their own language. When arranging the sentence, the students did not allow opening their dictionary or cheated to other

students. After finishing the test, the researcher assessed the students' score by using scoring rubric to find out the outcome of pre-test after taught by using Dictogloss Technique. The result of the score would be compared with the pre-test score. Then, the researcher knew is whether Dictogloss Technique is effective or not for teaching writing in recount text.

H. Data Analysis

The researcher used quantitative data analysis technique by using statistical method. The quantitative of this research was analyzed by using statistical computation. The analysis was used to know the significance difference score between the students' writing in recount before and after being taught by using Dictogloss Technique. The data collected form the result of the students' score in pre-test and post-test with aimed to know the effectiveness of using Dictogloss Technique in teaching writing. To find out the significant differences, the researcher used IBM SPSS 23.0 version.

The criteria for accepting or rejecting the hypothesis testing in this research were: when the significant value $<$ significant level, the alternative hypothesis (H_a) was accepted and the null hypothesis (H_0) was rejected. It means there was significant difference score on the students' writing before and after being taught by using Dictogloss Technique. While, when the significant value $>$ significant level, the null hypothesis (H_0) was accepted and the alternative hypothesis (H_a) was rejected. It meant there was no significant difference score on the students' writing before and after being taught by using Dictogloss technique.