

CHAPTER III

RESEARCH METHOD

In this chapter, the researcher explains the method used in this study. It consists of research design, research variable, treatment, population, sampling and sample, research instrument, validity and reliability testing, normality and homogeneity testing, data collecting method and data analysis.

A. Research Design

In conducting research, a research design is needed. Research design is a research design that is used as a guide in conducting research. According to Creswell (2009:3). Research design is a research plan and procedures to detail data collection and analysis methods. The most popular approaches in research are qualitative and quantitative. Qualitative research approach is basically called non-numeric research, while the quantitative research approach is numerical research. Both experimental and non-experimental is the method of collecting data, while qualitative or quantitative are the types of data produced, and statistical or interpretive in the type of analysis carried out on the data.

This study uses an experiment to plan a study that analyzes the effectiveness of the Guided Reading Strategy on students' reading comprehension of descriptive text. Experimental research is a scientific method, which aims to find out and evaluate something new in the future which is actually difficult to do. Regarding this statement, the research design

used is a Quasi Experimental design. Quasi Experimental is a development of experimental design. According to Donald Ary and Friends (2010:316), all populations or subjects taken in this study will be selected as the control group and the experimental group. Therefore, the researcher chose Quasi Experimental because the subject was all students in the class, so it was impossible for the researcher to divide the subject into several levels or criteria.

Based on consultation with the schools' English teacher, the researcher chose two classes. The classes are 7B and 7C. The reason for choosing these two classes is that students in this class have almost the same values and abilities in learning English. In this study, class 7B was the experimental group and class 7C was the control group. The experimental group was treated using the Guided Reading Strategy while the control group was given a conventional strategy as the strategy used by the classroom teacher. On the other hand, the researcher gave pre-test and post-test to both groups with the aim of knowing the increase in their scores. Quasi Experimental Design is shown as follows:

Table 3.1 : Design of Quasi Experimental

Group	Pre-test	Treatment	Post-tets
B	T1	Xa	T2
C	T1	-	T2

Based on the table above, B is the Experiment class that got T1 as the initial test, and C is the Control class. Then Xa as a strategy (Guided Reading strategy) which is applied in this class. And the last is T2 which means the post-test as a final test which aims to determine the final outcome score of student in both classes.

B. Research Variable

Variable is one of key terms in any research. According to Ary (2010 : 37) “variable is a construct or a characteristic that can take different values or scores.” Variable can be defined as characteristics of subjects of a research which tend to be different from one individual to another or from time to time. Variables are some of the main phenomena or symptoms that are relevant to the research attributes. The variables in the study are as follows:

1. Independent variable

Independent variable is independent of the influence of the dependent variable. The independent variable in this study is the use of Guided Reading Strategy on students’ reading comprehension.

2. Dependent variable

Dependent variable is the variable that influenced by the independent variable. Dependent variable in this research is students’ reading comprehension of descriptive text.

C. Treatment

The treatment was given before administration post-test. During the treatment, the researcher applied the Guided Reading strategy to teaching

reading comprehension. The treatment was carried out by researchers for 3 meetings in class VIIC as an experimental group. The first treatment was carried out on February 9th, 2021, the second treatment on February 16th, 2021, and the third treatment as the last treatment on March 6th, 2021.

1. The first treatment was carried out on Saturday, February 9th, 2021.

In the first treatment the researchers carried out treatment using the Guided Reading strategy in comprehensive reading learning. The initial step taken by the researcher before starting the Guided Reading strategy was to explain the definition, communicative objectives, generic structure, linguistic features, and examples of descriptive texts in the seventh grade English module book at MTs Darissulaimaniyyah Durenan Trenggalek. Next, the researcher explains the steps of Guided Reading strategy in teaching reading and how to use the Guided Reading strategy in the classroom.

The first step taken by the researcher is to write the title, theme or topic on the blackboard. Then the researcher asked the students to make predictions about what material would be taught at the meeting. In this step the researcher must make sure that all the words in the title, theme or topic are known by the students. As for the topic of the text that will be studied is about animals. Then, the researcher asked the students to open the English module book page 17 about Descriptive text entitled "Frog" and then asked them to read the text silently.

After students finish reading, the teacher forms students into several groups, then students and their respective groups discuss the text from the students' individual reading results. Before students make a list of information from the text, the researcher will make sure that the main idea of the dialogue is known by the students.

After that, the researcher asked the students to close their books and list as much information as they could remember about the text they had read on a piece of paper. After they finished writing the assignment, the researcher asked a volunteer or appointed a student to write the result on the blackboard. Then, the researcher asked the other students to convey all the information they remembered from the dialogue based on the notes on the board. When students make mistakes in presenting an idea, the researcher restates the idea to them in the correct clarification.

Next, the researcher asked the students to re-read the text silently to verify that all the information on the board was accurate and related to the text or not. Then, the researcher asked the students to answer some questions on the English module book related to the text to check their understanding. After they finished the task, the researcher asked the students to submit their paper to the teacher. After the activity was completed, the researcher closed the meeting by providing reflection and feedback on the material being taught.

2. The second treatment was carried out on Saturday, February 27th, 2021.

In this treatment the researcher used the Guided Reading strategy in teaching reading. The first step taken by the researcher is to write the title, theme or topic on the blackboard. Then the researcher asked the students to make predictions about what material would be taught at the meeting. The topic of the text that will be studied is about objects.

Before students start reading, the researcher must make sure that all the words in the title, theme or topic are known by the students. Then, the researcher asked the students to open the English module book page 17 about Descriptive text entitled "The Bag is Wonderful" and then asked them to read the text silently.

After students finish reading, there is a discussion about the text they have read and predicting the information that will be obtained from the text. Before students make a list of information from the text, the researcher will make sure that the main idea of the dialogue is known by the students.

After that, the researcher asked the students to close their books and list as much information as they could remember about the text they had read on a piece of paper. After they finished writing the assignment, the researcher asked a volunteer or appointed a student to write the result on the blackboard. Then, the researcher asked the other students to convey all the information they remembered from the text based on the notes on

the board. When students make mistakes in presenting an idea, the researcher restates the idea to them in the correct clarification. Next, the researcher asked the students to re-read the dialogue silently to verify that all the information on the board was accurate and related to the text or not. Then, the researcher asked the students to answer the questions on the English module book related to the text to check their understanding. After they finished the task, the researcher asked the students to submit their paper to the teacher. After the activity was completed, the researcher closed the meeting by providing reflection and feedback on the material being taught.

3. The third treatment was carried out on Saturday, March 6th, 2021

This is the last treatment for experimental group. In the third treatment the researchers carried out the treatment using the Guided Reading strategy in comprehensive reading learning. Before the students started reading the text, the researcher reminded the students about definitions, communicative objectives, generic structures, linguistic features, and examples of descriptive texts from the last meeting. Then, the researcher taught by using Guided Reading strategy in teaching reading. First, the researcher writes the title, theme or topic on the blackboard. Then the researcher asked the students to make predictions about what material would be taught at the meeting. Before students start reading, the researcher will make sure that all the words in the title, theme or topic are known by the students. As for the text that will be studied is about places.

After that, the researchers distributed a paper containing descriptive text with the titles "Petruk Cave". and then asked them to read the text silently.

After students finish reading, there is a discussion about the text they have read and predicting the information that will be obtained from the text. Before students make a list of information from the text, the researcher will make sure that the main idea of the dialogue is known by the students.

After that, the researcher asked the students to close their books and list as much information as they could remember about the text they had read on a piece of paper. After they finished writing the assignment, the researcher asked a volunteer or appointed a student to write the result on the blackboard. Then, the researcher asked the other students to convey all the information they remembered from the text based on the notes on the board. When students make mistakes in presenting an idea, the researcher restates the idea to them in the correct clarification. Next, the researcher asked the students to re-read the dialogue silently to verify that all the information on the board was accurate and related to the text or not. Then, the researcher asked the students to answer the questions on the English module book related to the text to check their understanding. After they finished the task, the researcher asked the students to submit their paper to the teacher. After the activity was completed, the researcher closed the meeting by providing reflection and feedback on the material being taught.

D. Population, Sample and Sampling

1. Population

Population is the whole of subject as the target of study. According to Creswell (2012:142), population is a group of individuals who have the same characteristics. The population of this research was the classes of students of the first grade of MTs Darissulaimaniyyah Durenan Trenggalek in period 2020/2021 which consists of 50 students. Those are divided into three classes. Class A, B, and C. It can be seen in the table 3.2 below:

Table 3.2 Population of Research

No.	Class	Students
1.	VIIA	10
2.	VIIB	20
3.	VIIC	20
Total students		50 students

2. Sample

Sample is part or representative of the number and characteristics possessed by a population. The sample is part or representative of the number and characteristics possessed by a population. According to Creswell (2012: 142), the sample is a subgroup of the target population that the researcher plans to study to generalize about the target population.

Researchers used 2 classes as samples in this study, namely 7B and 7C. Class 7C as the experimental group consisted of 20 students while class 7B as the control group consisted of 20 students. The researcher chose this class based on the recommendation of the class teacher and several reasons including:

1. These two classes have almost the same ability in learning English
2. This class is taught the type of descriptive text
3. The class is quite cooperative
4. Characteristics of students who are considered to have homogeneity in reading skills, meaning that they are not too good and not too bad.

Table 3.3 Sample of Research

VII B	VII C	Total participants
20 students	20 students	40 students

3. Sampling

Sampling is a technique of taking samples from a group of populations. Sampling is an important characteristic of inferential, and statistics is the process of going from parts to whole (Ary et al, 2010:148). In this study, the researcher did not use the entire population as a sample. Therefore, purposive sampling was used to take samples. Purposive sampling technique is a type of non-probability sampling in which the researcher consciously selects

subjects to be added to the study to ensure that the elements will have certain characteristics related to the research. Purposive sampling, also known as judgment sampling, is that sample elements that assess a typical or representative are selected from the population (Ary, 2010:156). This technique aims to determine the sample with certain considerations. Purposive sampling is used based on certain considerations, while the main consideration is that the selected class has homogeneous reading skills, meaning that students in the class have average, not good and not bad reading skills.

E. Research Instrument

The research instrument is a tool to collect data. In this study the instrument used by researchers to collect data is a test that must be valid and reliable. Before conducting the research, researcher also prepared the instrumentation. Gay (1992: 147) says that whether you are testing a hypothesis or looking for an answer to a question, you must have a valid and reliable instrument to collect your data. Based on this statement, it can be concluded that making an instrument takes a long time and is influenced by several factors. In this study, the researcher used the test as the instrument. The test does not have to be a series of written questions to which the individual responds to determine whether he or she “passes”. The test is a tool to measure knowledge, skills, feelings, intelligence, or individuals or groups (Gay, 1992:154). Researchers used this instrument to determine student achievement in reading comprehension.

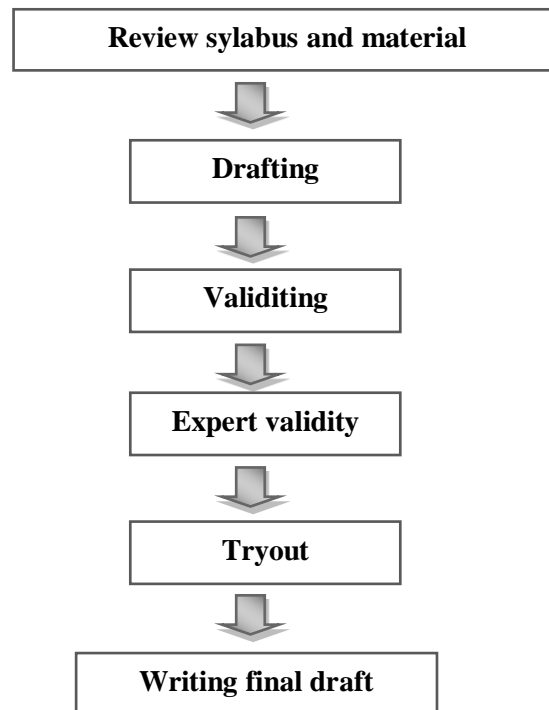
The purpose of this test is to measure student achievement in reading comprehension of descriptive texts after being taught using the Guided Reading strategy and Conventional Method. Students are given a multiple choice test. The time of this study was carried out on February 4th 2021 to March 13rd, 2021. The study was conducted four times for the Experimental and Control groups, each group received post-test and 3 treatments.

The post-test which distributed on march 9th 2021 for control group and March 13rd 2021 for experimental group. Both of the tests were descriptive text as the level of students in their grade or level and by considering with core competence and also basic competence. The topic of text chosen in every tests were different to avoid bias as they can remember on the previous topic given. In post-test was the description about frog, bag, and petruk cave. The test consist of 30 multiple choices test based on the text. Every items has four choices, there was A, B, C and D. The time location was about 60 minutes.

To score the students' reading comprehension test, the researcher used the forula to calculate te score of each students' work follows:

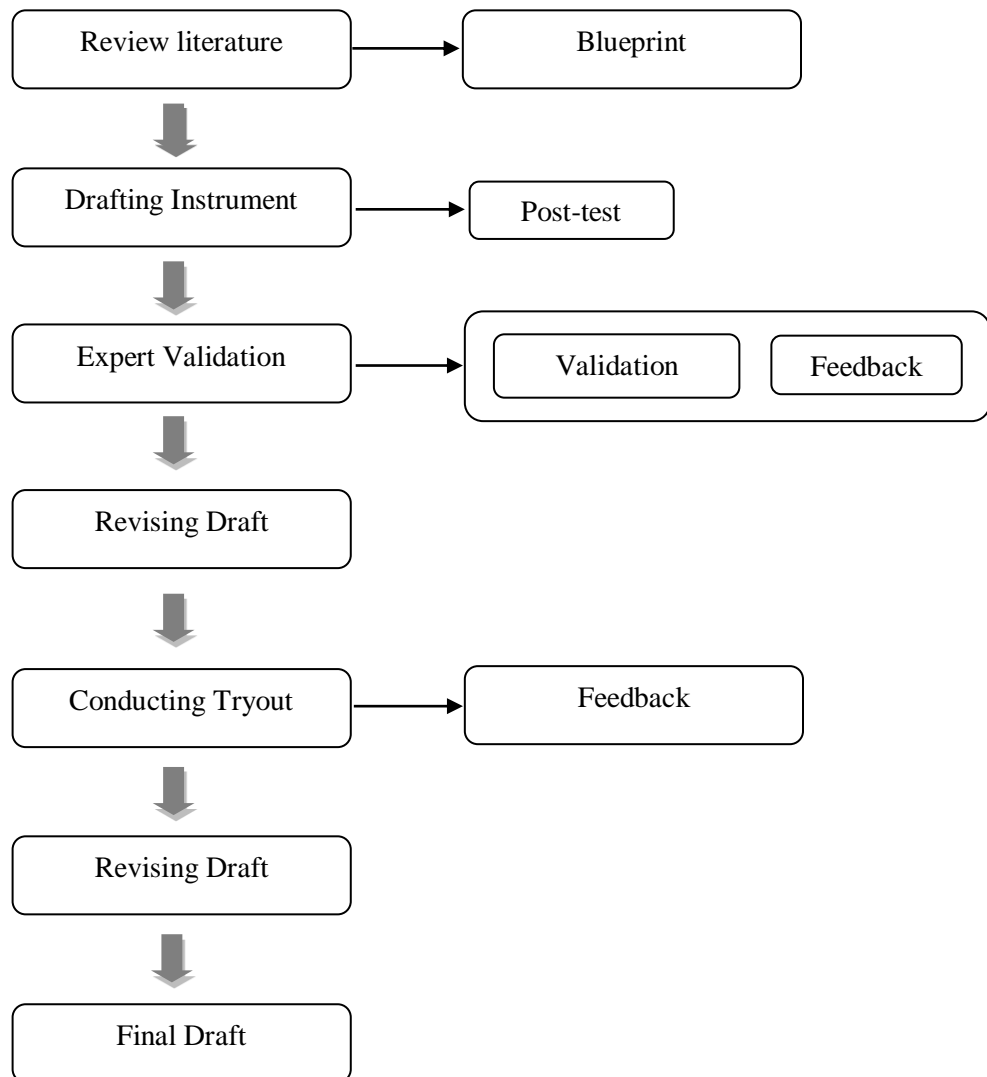
$$\text{Score: } \frac{\text{Number of correct items} \times 100}{\text{Total number of items (30)}} =$$

In Conducting pre-test and post-test, the researcher develop the instrument through several steps explained in figure 3.1 below:

Figure 3:1 Instrumentation of Developing Test**F. Validity and Reliability Testing**

Measurement of quantitative research is the validity and reliability of research instruments. Reliability and validity are two important concepts related to the psychological characteristics of measurement and its accuracy (Singh, 2007: 76-77). The validity and reliability of the instrument is an integral part in conducting a study because the instrument to be used must be valid and reliable before being used to collect data. In this study, the researchers ensured that the instrument (test) was valid and reliable by testing the validity and reliability. How to make a valid and reliable instrument can be described as in the 3.2 figure below:

Figure 3.2 Process in Making Valid and Reliable Instrument



Based on the figure above, the first step to get the validity and reliability of the instrument is the researcher reviewing the book and syllabus to prepare the test. After compiling the test (post-test), the researcher showed both tests to the expert validator to get feedback by considering the validation guide. Then the researcher revised the test draft according to the feedback given. Next, the researcher did a tryout to test students in different classes as samples to get feedback from students. The tryout was conducted in class VII

A and VIIIA. Finally, the researcher revised the test again after getting input or feedback from the Tryout and based on that term the researcher got the final draft for the VII B and VII C tests as the sample population of this study.

1. Validity

The most important principle and complex criterion of an effective test of language testing is validity. Validity is measuring what it is designed to measure. In language testing, Brown (2004) defines validity as the extent to which the conclusions made from the results of the assessment are appropriate, meaningful, and useful in terms of the purpose of the assessment. Before conducting research, researchers must ensure that the instruments that have been made have three kinds of validity as follows;

a. Content validity

Content validity is a type of validity that depends on careful analysis of the language being tested and the particular test. A test is said to be valid if its content is a representative example of the language skill, structure, etc. being tested. Content validity is achieved if there is a match between the content and the size of the assessment which can be said to have content validity.

The suitability between the curriculum objectives and the assessed objectives is called content validity. An instrument in research is said to achieve content validity if the test is designed

based on core competencies and basic competencies. The method used by researchers to validate the test is by consulting with experts.

Table 3.4 Standart of Assesment

Core Competence	4. Mencoba, mengolah, dan menyaji dalam ranah konkret (menggunakan, mengurai, merangkai memodifikasi dan membuat) dan ranah abstrak (menulis, membaca, menghitung, menggambar dan mengarang) sesuai dengan yang dipelajari di sekolah dan sumber lain yang sama dalam sudut pandang teori.
Basic Competence	4.7 Teks deskriptif
Indicator	4.7.1 Menangkap makna secara kontekstual terkait fungsi, struktur teks, dan unsur kebahasaan teks deskriptive lisan dan tulis, sangat pendek dan sederhana, terkait orang, binatang, dan benda. 4.7.2 Menyusun teks deskriptive lisan dan tulis, sangat pendek dan sederhana, terkait orang, binatang, dan benda, dengan memperhatikan fungsi sosial, struktur teks, dan unsur kebahasaan, secara benar dan sesuai konteks.
Testing Objective	To measure the ability of students' reading comprehension of descriptive text
Test Item	Multiple Choice
Material	Descriptive Text
Test Score	100

Table 3.5 Content Validity

Questions	Number of post-test
Identify of genre of the text	13
Finding topic, main idea, purpose of the text	1, 4, 9, 11, 14, 21

Identify detail information from the text	2, 8, 10, 18, 23, 24, 25, 26, 29, 30
Identify the structure of the text	3, 12, 22,
Menentukan true or false	16, 19, 20
Finding synonyms and antonyms and meaning based on the text	5, 6, 7, 17, 27, 28
Finding the conclusion based on the text	15

b. Construct Validity

Construct validity is the validity that shows the extent of the suitability of the test with the theory that forms the basis for the preparation of the test. Construct validity refers to the preparation of the instrument. The instrument was built by paying attention to the aspects of reading descriptive text. In this study, researchers used multiple-choice tests to measure student achievement in reading comprehension. So, in the test, the researcher asked the students to answer multiple choice based on the descriptive text to measure the students' achievement in reading comprehension and this satisfies the construct of the reading test and hence is valid in terms of construct validity. In making the instrument, the researcher consults with qualified experts to ensure that the instrument is valid. These experts are advisor and English teachers who handle class VII B and VII C.

c. Face Validity

Face validity refers to the degree to which a test looks right, and appears to measure the knowledge or abilities it claims to measure, based on subjective judgment or the examinees who take it, the administrative personnel who decide on its use, and other psychometrically unsophisticated observers (Brown, 2004). In this test, the researcher gave a test to measure reading comprehension, focused on descriptive text. Here, the researcher uses face validity in giving a reading test based on the form of a multiple choice test.

There are several aspects to be considered from this test to make a good test based on the validity.

1. The instruction must be clear for students
2. Time allocation must be adequate. Here, researcher gives about 60 minutes to do an multiple choice test consists of 30 items with three topics of descriptive text.

3. Reliability

Reliability is a necessary characteristic of any good test. Reliability is a measuring instrument is the level of consistency with which it measures whatever is being measured. According to Creswell (2012:159), reliability means the score of an instrument is stable and consistent. The scores should be nearly the same when the researcher administers the instrument several times at different times. Also, the

score must be consistent. When an individual answers a particular question in one way, that individual must consistently answer closely related questions in the same way.

There are several factors that affect the reliability of a test. The first is the size of the sample of material selected for testing, and the second is the administration of the test, which is an important factor in determining reliability.

The researcher used a split-half method to get two row scores as prove of test consistency. One of the technique to check the reability of instrument by deviding two parts. The reability index is reflected by the correlation of those parts. The students of VIII-A were divided into two groups. The first half of students were called as top group and the last half were called as bottom group. After get two rows of score, the researcher used Spearman Brown in SPSS 26.0 for windows to find out the reability of the test. The result of computation then was compared the table to see the reability level. Sarwono (2015: 249) proposed the criteria of reability as shown below

Table 3.6 Classification of Reliability

No	Score	Criteria
1.	If the Guttman Split-Half Coefficient ≥ 0.80	Reliable
2.	If the Guttman Split-Half Coefficient ≤ 0.80	Unreliable

After the score of post-test (tryout) calculate using IBM SPSS (Statistic Package for Sosial Science) 26.00 the writer got the result as follows:

Table 3.7 Reliability Tryout Post-test

Reliability Statistics			
Cronbach's Alpha	Part 1	Value	.648
		N of Items	15 ^a
	Part 2	Value	.717
		N of Items	15 ^b
	Total N of Items		30
Correlation Between Forms			.726
Spearman-Brown Coefficient	Equal Length		.841
	Unequal Length		.841
Guttman Split-Half Coefficient			.835

a. The items are: soal1, soal2, soal3, soal4, soal5, soal6, soal7, soal8, soal9, soal10, soal11, soal12, soal13, soal14, soal15.

b. The items are: soal16, soal17, soal18, soal19, soal20, soal21, soal22, soal23, soal24, soal25, soal26, soal27, soal28, soal29, soal30.

To find out whether the instrument was reliable, it can be seen from the Guttman Split-Half Coefficient column. The table 3.4 above showed that coefficient was 0.835 which was bigger than 0.80. According to Sarwono, it means that the instrument used by researcher was reliable.

By conducting try out, In addition to functioning to check the reliability of the instrument, researchers can find out the level of difficulty of the items. by knowing the level of difficulty of each item, the researcher will be able to

revise questions that are too easy or too difficult. The formula used to determine the level of difficulty of the test items is the Item Facility (IF), the formula can be seen as follows:

$$\mathbf{IF = \frac{N \text{ correct}}{N \text{ total}}}$$

Where:

IF : Item Facility.

N correct : The number of students who correctly answered a certain item.

N total : The total number of students who took the test.

Table 3.8 Classification of the Level of Difficulty

IF value	Interpretation
0,00 < IF < 0,30	Difficult
0,30 < IF < 0,70	Moderate
0,70 < IF 1,00	Easy

Source: Arikunto (2015:225)

The result of the calculation presented on the table below:

Table 3.9 Level of Difficulty

Number of item	IF	Criteria	Number of item	IF	Criteria
1	0.85	Easy	16	0.75	Easy
2	0.15	Difficult	17	0.80	Easy
3	0.85	Easy	18	0.25	Diffucult
4	0.40	Moderate	19	0.70	Moderate
5	0.15	Difficult	20	0.70	Moderate
6	0.85	Easy	21	0.25	Difficult
7	0.30	Diffucult	22	0.35	Moderate
8	0.85	Easy	23	0.70	Moderate
9	0.55	Moderate	24	0,70	Moderate
10	0.55	Moderate	25	0.35	Moderate
11	0.45	Moderte	26	0.65	Moderate
12	0.70	Moderate	27	0.60	Moderate
13	0.80	Easy	28	0.70	Moderate
14	0.35	Moderate	29	0.50	Moderate
15	0.45	Moderate	30	0.60	Moderate

From the table of IF results above, it is known that there are several levels of test questions according to their level of difficulty: easy, medium and difficult. Items in the instrument nothing is too easy and too difficult, all the questions above can be used in post-test without the need for revision.

G. Normality and Homogeneity Testing

Normality and homogeneity testing are calculated and analysed to determine either parametric or non-parametric testing. In order with the result of both tests can be seen in chapter IV.

1. Normality Testing

The normality test was carried out by researchers to determine whether the data that had been taken were normally distributed or not. If the data is normally distributed, it means that the data has represented the population and the data can be calculated using parametric statistics which usually use the Independent Sample T-Test, whereas if the data is not normally distributed, the data can be calculated using non-parametric statistics which usually use the Mann Whitney U test. To know the normality, the researcher used SPSS 26.0 One Sample Kolmogorov-Smirnov test by the value of significance (α) = 0.05. Testing of the normality is conducted by the rules below:

- If the significant value > 0.050 , it means that the data distribution is normal
- If the significant value < 0.050 , it means that the data distribution is not normal
- If the data distribution is normal, next the researcher goes to homogeneity testing

2. Homogeneity Testing

Homogeneity test is a test that must be done to determine whether the two classes studied are homogeneous or not. The homogeneity test of the data carried out by the researcher was the result of the post-test given to the experimental class and the control class. The researcher used SPSS 26.0 Levenes' test by the value of significance (α) = 0.05.

3. Hypothesis Testing

If the analyzed data is normally distributed and homogeneous, then the hypothesis testing is carried out with t-test statistics. If the analyzed data is normally distributed but not homogeneous, then the hypothesis testing is carried out with the t' -test statistic.

H. Data Collecting Method

The data collection method serves the way how the researcher get the data which is needed. To measure the effectiveness of using Guided Reading strategy on students reading comprehension of Descriptive text, the researcher uses instrument. The instrument is post-test. Reseachr gave students a test after the treatment to know the students' score and its increasement which it can make researcher know whether the guided reading strategy is effectiveness or not to improve students' reading comprehension of descriptve text. The test consist of several questions that related wit descriptive text that students have read before. Then the researcher gave score in order to find out the score of the text.

Table 3.10**The Schedule of the Research**

No.	Group	Meeting	Date	Activity
1.	Control (VII B)	I	Tuesday, February 9 th , 2021	Treatment 1 by using Conventional Method
2.	Eperimental (VIIC)	I	Saturday, February 13 th , 2021	Treatment 1 by using Guided Reading strategy
3.	Control (VII B)	II	Tuesday, February 16 th , 2021	Treatment 2 by using Conventional Method
4.	Experimental (VIIC)	II	Saturday, February 27 th , 2021	Treatment 2 by using Guided Reading strategy
5.	(VIIIA)	-	Monday, March 1 st , 2021	Tryout post-test
6.	Control (VII B)	III	Tuesday, March 2 nd , 2021	Treatment 3 by using Conventional Method
7.	Experimental (VIIC)	III	Saturday, March 6 th , 2021	Treatment 3 by using Guided Reading strategy
8.	Control (VII B)	IV	Tuesday, March 9 th , 2021	Post-test
9.	Experimental (VII C)	IV	Saturday, March 13 rd , 2021	Post-test

I. Data Analysis

Data analysis is used by researcher to analyze the collected data. The data is taken from students' score in post-test. Then, the data used to investigate

the effectiveness of using Guided Reading strategy on students' reading comprehension of descriptive text. The collected data will be analyzed by using Independent Samples T-Test in IBM SPSS Statistic 26.0. In this case, discussing the relationship between significant value and significant level. Significant values is the output of calculating hypothesis by Independent Samples T-Test. Meanwhile, significant level refers to standard level of hypothesis, it is 0.050. The interpretation can be seen as below:

1. When the significant value $<$ significant level, the alternative (H_a) is accepted and the null hypothesis (H_0) is rejected. It means there is significant difference score on the students' reading achievement before and after being taught by using Guided Reading strategy.
2. When the significant value $>$ significant level, the null hypothesis (H_0) is accepted and the alternative (H_a) is rejected. It means there is no significant difference score on the students' reading achievement before and after being taught by using Guided Reading strategy.