

CHAPTER III

RESEARCH METHOD

In this part, it describes about research methodology that is used in conducting the research. It is purposed to answer the problem of the study. This chapter consists of approach and type of research, population and sample, data collection procedure, instrumentation of the study, instrument try out, instrument validity, instrument reliability, level of difficulty, and data analysis procedure.

A. Approach and Type of Research.

This research used quantitative approach. Quantitative research is inquiry employing operational definitions to generate numeric data to answer predetermined hypotheses or questions.⁵⁸ In this study, the writer used quasi-experimental design. Quas-experimental design is similar to randomized experimental research in that involve manipulation of an independent variable but differ in that subjects are not randomly assigned to treatment group.⁵⁹

The writer used nonrandomized control group pre-test, post-test design with two stay two stray technique treatment. There are two groups in this model, experiment group and control group. Both groups were given pre-test to measure the score of students' before treatment given. The treatment was given for experiment

⁵⁸Donald ary et al. *Introduction to Research in Education*, Canada:WadswortCengage Learning 2010.p.647

⁵⁹*Ibid* 361

group. Post-test was given for both groups to measure the students score after treatment given.

Table 1.1. The Description of the Experiment and Control Group

Group	Pre-test	Treatment	Post-test
Experiment Group	Y1	X	Y1
Control Group	Y2	-	Y2

B. Population and sample

a. Population

Population is the larger group to which a researcher wishes to generalize: it includes all members of a defined class of people, event, or objects.⁶⁰ The population of this study is all of the eighth grade students of MTs.Islamiyah Palangka Raya amount 94 students in four classes; VIII-A, VIII-B, VIII-C, VIII-D The scheme of this population is:

⁶⁰*Ibid* p. 648

Table 1.2 The Number of the Eighth Graders of MTs Islamiyah Palangka Raya

No	Class	The number of the students
1	VIII-A	21
2	VIII-B	24
3	VIII-C	24
4	VIII-D	25
All students		94

b. Sample

Sample is a part of population. A sample is a set of elements selected in some way from a population.⁶¹ According to Ary, sample is a group selected from population for observation in a study.⁶² Cluster sampling is used if the population not an individual but a group of individuals who are naturally together.⁶³ Because the population of this study is the students of the eight grade students of MTs Islamiyah Palangka Raya which is consist of four classes. The VIII-C class became the experiment class and VIII-D became the control class. The scheme of this sample is:

⁶¹Roger Sapsford & Victor Jupp, *Data Collection and Analysis*, p.26: Thousand Oaks, London, 2006.

⁶²Donald Ary et al., p.649

⁶³*Ibid.*, P. 134

Table 1.3
The Number of Samples

Class	Group	Number of Students
VIII-C	Experiment	24
VIII-D	Control	25
Total		49

C. Data Collection Procedures

The writer collected the data by implementing some procedures. There were some steps in the procedures as follow:

- a. The writer observed the class:
 1. The number of classes of the eighth year
 2. The number of students of the eighth year
- b. The writer gave try out test
- c. The writer determined two classes from the population into experimental group and control group.
- d. The writer gave pre-test to the experimental group and control group.
- e. The writer taught English reading for fourth times to students in the experimental group by using two stay two stray technique and taught English reading to students in the control group without using two stay two stray technique.

- f. The writer gave post-test to the experimental group and control group.
- g. The writer analyzed the data using T-test.
- h. The writer interpreted the analysis result based on the scores obtained from pre test and post-test. Then, the writer categorized the students' post test score. The mean of the students' post test score was analyzed to test the hypothesis.
- i. The writer drew conclusion whether using two stay two stray technique give effect on reading comprehension or not, based on the obtained data, and discussed the result by comparing the finding.
- j. Finally, the writer concluded that teaching reading comprehension using two stay two stray technique gives significant effect on reading comprehension scores of the eighth grade students of Mts.Islamiyah Palangkaraya.

D. Instrumentation of the Study

Instrument is one of the most important parts of the research instrument. Instrument of this research was test. It was to measure the student's score on reading comprehension. Therefore, the writer used test. Tests are valuable measuring instruments for educational research. A test is a set of stimuli presented to an

individual in order to elicit responses on the basis of which a numerical score can be assigned.⁶⁴

According to Heaton stated that test is geared to the teacher taken place, whereas in the latter case in the teaching in geared to the test, standardized tests and public examination.⁶⁵

In this study, the data of the students' reading comprehension descriptive text score. It was taken from pre-test and post-test. The writer was given them a test in form of multiple choices.

E. Instrument Try Out

The writer was tried out the instrument before it applied to the real sample in this study. The writer obtained the instrument quality consists of instrument validity, reliability, and index of difficulty. The procedures of the try out were:

- a. The writer tried out the test instrument to the respondents
- b. The writer gave the score to the respondents' answer
- c. The writer analyzed the obtained data to know the instrument validity, reliability, and level of difficulty.

⁶⁴ Donald ary et al. *Introduction to Research in Education*, Canada:WadsworthCengage Learning 2010.p.201

⁶⁵J.B.Heaton, *Language Testing*,p.1

F. Instrument Validity

The validity of a test is the extent to which it measures what is supposed to measure and nothing else.⁶⁶ The test can be said valid if it is able to measure what it is suppose to be measure. Validity in this study distinguished into some kinds as follows:⁶⁷

1. Face Validity

Face validity is a term sometimes used in connection with a test's content. Face validity refers to the extent to which examinees believe the instrument is measuring what it is supposed to measure.⁶⁸

To face validity of the test items as follows:

- a) The evaluation by multiple choice tests based on scoring system.
- b) Kinds of the test is multiple choice
- c) The language of items is used in English.
- d) The test items are suitable with syllabus of English subject of the Mts. Islamiyah Palangka Raya.

2. Construct Validity

According to Gronlund" construct validity is the process of determining the extent to which test performance can be interpreted in term of one or more

⁶⁶ J.B. Heaton, *Writing English Language Test*, p.153

⁶⁷ *Ibid.*

⁶⁸ Donald ary, et al, *Introduction to Research in Education*, Canada: Wadsworth Cengage Learning, 2010, p.228

construct”.⁶⁹ If a test has construct validity, it is capable of measuring certain specific characteristic in accordance with a multiple choice. The test items are constructing based on English Curriculum of the eighth grade students of Mts. Islamiyah Palangkaraya.

3. Content Validity

Content validity is essentially and of necessity based on the judgment, and such judgment must be made separately for each situation.⁷⁰ In this study, the writer measured reading score. The test items were made based on the material in the syllabus.

In this study, the writer used multiple choice item tests for students. It is useful to measure their reading comprehension the material should be test is about descriptive text. The contents of test items were then show in the following table:

Table 3.5 Content Specification of Items Research Instruments

Skill to measure	Level of comprehension	Percentage (%)	Number of Test Item
Reading Comprehension	Literal	70%	2.3.5.8.10.13.14.21.23.26.29.31. 34.35.37.38.40.42.43.44.45.
	Inferential	30%	1.7.9.12.16.17.22.30.47.49

⁶⁹Norman E Gronlound, *Measurement and Evaluation in Teaching*, New York: Publishing company,p.83

⁷⁰Donald ary et al. *Introduction to Research in Education*, Canada:WadswortCengage Learning 2010.p.215

Items Specification of Instrument Try Out

Read this text bellow and choose A, B, C or D for the correct answer!

The following text is for questions 1-3

My uncle loves birds as pets; one of them is a starling. He loves it very much because it sings beautifully. He says that it entertains him every day. The starling is fat. It has a sharp yellow bill and yellow legs with sharp claws. There are yellow marks around its eyes. These make the starling look more beautiful. It has black feathers from its head to its neck, light brown feathers on its body and tail, and white feathers on its belly and inner parts of its tail and wings. One more thing! My uncle attached an identify bracelet on its leg. However, my uncle looks very upset now. He tells me that this beautiful starling flew away this morning. He forgot to close the cage door after he fed it. He lost his precious pet. Poor uncle.

NO	QUESTION	ANSWER	CATEGORY	CLUE
1.	The purpose of the text is to..... a. Entertain the readers b. Informs how to breed a starling c. Relate an experience d. Describe a pet bird	D	I	Line 1-3
2.	The writer's uncle looks sad because..... a. He saw his starling dying b. His starling flew away c. He let his starling fly away d. His starling died	B	L	Line 7-8
3.	The following statements are true,	C	L	Line 7-8

	EXCEPT..... a. The writer's uncle has bird as pets b. There is bracelet on the starling's leg c. The starling flew away by breaking the cage d. The writer's uncle loves the starling because it sings beautifully			
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The following text is for questions 4-6

Every important area always has security guards, whether it is a shop, an office, a tourist attraction, including a palace where a king and queen live. Surakarta palace also has security guards. However, they are different from other guards. If security guards elsewhere usually wear shirts, trousers, hats and boots, the Surakarta palace security guards wear a combination of modern and traditional clothing. They wear shirts, covered by coats and trousers wrapped in sarongs. They also wear boots and hats. However, unlike other guard's hats, the Surakarta palace guards wear hats called kuluk. Security guards at an office or a shop equip themselves with weapons, and so the palace guards. They carry Kris' on their back and swords on their waists.

NO	QUESTION	ANSWER	CATEGORY	CLUE
4.	What is the text about? a. The descriptions of security guards at an office. b. The descriptions of security guards in general of important places c. The description of Surakarta palace's security guards. d. The description of	C	I	Line 2-5

	important places, such as Surakarta palace.			
5.	Which statement is NOT TRUE? a. A palace is a place where a king and queen live. b. The Surakarta palace guards wear trousers wrapped in sarongs c. The Surakarta palace guards only carry swords on their waists. d. The Surakarta palace guards wear hats called Kuluk	C	L	Line 7-8
6.	Every important area always has security guards, whether it is a shop, an office.....(paragraph 1) The word it refers to..... a. Every important area b. A palace c. An office d. Shop	A	I	Line 1-2

The following text is question for 7-11

Mount Rinjani is an active volcano in Lombok, West Nusa Tenggara. It rises to 3,726 meters above sea level, making it the second highest volcano in Indonesia. Within its huge caldera sits a crater lake is quite breathtaking. Many tourists can go hiking and trekking the mountain while enjoying the freshness and friendliness of the surrounding sights. The best time to climb the mountain is during the dry season .over

20 villages surround mount Rinjani. There are many routes to reach the mountain, but the main access is from Senaru village in the north and Sembalun Lawang to the east.

NO	QUESTION	ANSWER	CATEGORY	CLUE
7.	What is the text about? a. Mount Rinjani b. Lake Segara Anak c. Lombok d. West Nusa Tenggara	A	I	Line 1-2
8.	How high is Mount Rinjani above sea level? a. 3,627 meters b. 3,672 meters c. 3,726 meters d. 3,762 meters	C	L	Line 1-2
9.	How is the view of the crater lake? a. Uninteresting b. Terrifying c. Wonderful d. Sleazy	C	I	Line 2-3
10.	Which statement is TRUE? a. Mount Rinjani is the third highest volcano in Indonesia b. The best time to climb Mount Rinjani is during the dry season c. There are less than 20 villages surround Mount Rinjani d. Visitors can reach the mountain from Senaru village in the south	B	L	Line 4-5
11.	“ within its huge caldera sits crater lake, Segara Anak” What is the antonym of “ huge”? a. Shallow b. Bright c. Wide d. Tiny	D	I	Line 2-3

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The following text is for questions 12-16

Equatorial Monument (Tugu Khatulistiwa) is one of the best tourist attractions in Pontianak, the capital city of west Kalimantan, on the island of Borneo. It marks the division between the northern and southern hemisphere and is iconic to West Kalimantan. It was built in 1928 and completed in 1930 in a form of bollard and dart. The monument was then rebuilt in 1938 and renovated in 1990 with the addition of a dome to protect the original monument. It is made of ironwood instead of cement. There, visitors can learn lots of interesting facts about the equator and see how unique Pontianak is. They can see the documentation of the monument's development from its inception until today, so that they can gain basic knowledge of science and astronomy. Each visitor will be rewarded with a certificate from the department of Tourism as a memento that they have set foot on the equatorial monument. Every March 21-23 and September 23, at noon, the visitors are treated to an interesting view. It is a phenomenon of cyclical culmination of the sun, as a sign of early spring and early autumn. It is when upright objects around the monument don't have shadows. This shows that the monument is located precisely at zero degrees latitude. There are usually such events as traditional arts attractions and painting exhibitions to celebrate the moments.

NO	QUESTION	ANSWER	CATEGORY	CLUE
12.	What is the purpose of the text? a. To entertain the readers b. To describe equatorial monument c. To inform about things to do in West Kalimantan d. To relate one's experience when visiting Pontianak	B	I	Line 1-2
13.	What is the last paragraph about?	D	L	Line 10-

	<ul style="list-style-type: none"> a. The description of the monument b. The location of the equatorial monument c. Activities that the visitors can do at equatorial monument d. An interesting view in March and September at the monument. 			12
14.	<p>The following statements are correct, EXCEPT.....</p> <ul style="list-style-type: none"> a. The visitors will be rewarded with a certificate when visiting the monument b. The phenomenon of cyclical culmination of the sun occurs one a year c. The equatorial monument is located precisely at zero degrees latitude d. The visitors can see the documentation of the Monument's development. 	B	L	Line 7-9
15.	<p>When was the dome at the monument built?</p> <ul style="list-style-type: none"> a. 1928 b. 1930 c. 1938 d. 1990 	D	L	Line 3-4
16.	<p>“.....<u>it</u> marks the division between the northern and southern hemisphere.....” (paragraph 1) The underlined word refers to.....</p> <ul style="list-style-type: none"> a. The equatorial monument b. The island of Borneo c. West kalimantan d. Pontianak 	A	I	Line 2-3

The following text is for questions 17-20.

Mr. Raymond is my neighbor. He is old and friendly. He lives alone in his house. His wife died years ago and his two children live abroad. Mr. Raymond has a favorite object. It is an old clock, hung on the wall of the dining room. The clock is dark brown, in the shape of a horse. It is medium sized. It creates a sound of a horse's neigh on the hour. Mr. Raymond is very fond of the clock. It is one of his father's inheritances. He will never replace the clock for another one, as the clock is very meaningful to him. He has it in the dining room, so he is able to look at the clock and hears its sound, he feels the warmth of his family.

NO	QUESTION	ANSWER	CATEGORY	CLUE
17.	What is the text about? a. Mr.Raymond's living b. Mr. Raymond's characteristics c. Mr. Raymond's family d. Mr.Raymond's clock	D	I	Line 2-5
18.	Why is Mr.Raymond very fond of the clock? a. He received it from his old friend b. He inherited it from his father c. It is expensive d. It is unique	B	L	Line 3-4
19.	The following statements are TRUE about Mr. raymond's clock, EXCEPT..... a. It is not big, but also not small b. It has been replaced with another one c. It reminds Mr.raymond of his family d. It is in the shape of a horse.	B	L	Line 2-3
20.	".....as the clock is very meaningful to him"(paragraph	A	I	Line 4-6

	<u>3)</u> What does the underlined word mean? a. Significant b. Sorrowful c. Interesting d. Expensive			
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The following text is for questions 21-24

The Bermuda triangle is one of the world's mysterious spots. It is an area between Florida's fort Lauderdale, Bermuda and Puerto Rico. It covers about 1,140,000 square km (440,000 square miles). It is supposed to be the site of mysterious disappearances of ships and aircraft. Numerous theories range from aliens to paranormal activity, as well as more plausible ideas such as sudden bad weather or pilot error. A more recent theory states that the decay of plants cause large amounts of methane compounds. They are stored on the floor of the American continental shelf. If an earthquake jolts them, they bubble up to the surface. They would make it impossible for the water to support the weight of a ship or for an airplane to stay sky bound. The first US ship to disappear in the triangle was the USS Cyclops in March 1918. On December 5, 1945, a squadron of US bombers disappeared in bad weather. A seaplane searched for the aircraft, but it suddenly vanished.

NO	QUESTION	ANSWER	CATEGORY	CLUE
21.	The Bermuda triangle is a/an.....place a. Interesting b. Fascinating c. Mysterious d. Secure	C	L	Line 1-2
22.	What is the main idea of paragraph two? a. The disappearances of aircraft in the Bermuda triangle b. The coverage of the Bermuda	D	I	Line 3-4

	triangle. c. Where the Bermuda triangle is situated d. Causes of disappearances in the Bermuda triangle			
23.	What causes large amounts of methane compounds on the floor of the American continental shelf? a. Fish decay b. Microorganisms decay c. Animals decay d. Plants decay.	D	L	Line 5-6
24.	“.....but it suddenly vanished”.(paragraph 3)The word it refers to..... a. The seaplane b. The helicopter c. The squadron d. The ship	A	I	Line 9-10

The following text is for questions 25-27

My aunt has a unique plant which I have never seen before. She says it is jeruk kingkit. She also explains that some people call it Kalijage, jeruk rante, lemo-lemo or jojikoyo. My aunt planted it in a big pot. The plant is about one meter tall. The plant has small fruits, as big as my finger tips. They are green when young and red when ripe. Its leaves are dark green and its flowers are white. There are thorns on the trunk and branches.

NO	QUESTION	ANSWER	CATEGORY	CLUE
25.	What is the purpose of he text? a. To explain what jeruk kingkit is b. To explain how to plant jeruk kingkit c. To describe a certain plant called jeruk	D	I	Line 1-2

	kingkit d. To describe a unique plant called jeruk kingkit in general			
26.	The following statements are true about the plant, EXCEPT..... a. Its fruits are small b. Its flowers are white c. Its leaves are dark green d. Its thorns only grow on the trunk	D	L	Line 4-5
27.	“ they are green when young, and red when ripe”. What does the word “ they” refer to? a. The leaves b. The small fruits c. Some people d. The trunk and branches	B	I	Line 3-4

The following text is for questions 28-32

Sumbawa, Wonderful Indonesia

Sumbawa, in the province of West Nusa Tenggara, is one of the most wonderful islands in Indonesia. It is located in the middle of the Lesser Sunda Islands chain with Lombok to the west, Flores to the east and Sumba further to the southeast. Sumbawa is 15,448 Km, three times the size of Lombok with a population of around 1,5 million of which the majority are occupied with agriculture and fishing. Sumbawa is divided into four regencies and one city, namely West Sumbawa regency, Sumbawa regency, Dompu regency, Bima regency and Bima city, with a number of smaller surrounding islands, most notably Moyo island, Sangeang island and Komodo island. Traditionally, Sumbawa has been divided into two main groups of people, each with their own languages; Sumbawanese in the west and Bimanese in the east. The western population is related to the Sasak people on Lombok and speaks Basa

Samawa(bahasa Sumbawa) and has a clear relation to flores. Sumbawa lies within the pacific ring of fire. It is a volcanic island, including mount Tambora which erupted in 1815, the most destructive volcanic eruption in modern history. This island is also best known for its waves, sandy beaches and wild terrain. With great surf and spectacular coral reefs, the majority of travelers come to surf and dive.

NO	QUESTION	ANSWER	CATEGORY	CLUE
28.	What is the text about? a. Regencies on Sumbawa island b. Population on Sumbawa island c. The description of West Nusa Tenggara d. The description of Sumbawa Island.	D	I	Line 1-2
29.	Which of the following statements is TRUE? a. There are five regencies in Sumbawa b. Most inhabitants earn their livelihood as cattle breeders c. Sumbawa is 15, 448 km, three times the size of Lombok d. The largest volcanic eruption of Mount Tambora was in 1851	C	L	Line 3-4
30.	What bounds Sumbawa in the east? a. Flores b. Lombok c. Sumba d. Komodo island	A	I	Line 2-3
31.	Who speaks Basa Samawa? a. Bimanese b. Sumbawanese c. People on Moyo island d. People on Sangeang island	B	L	Line 9-10

32.	<p>“.....each with their own languages; Sumbawanese in the west and Bimanese in the east”.(paragraph 2)</p> <p>The underlined word refers to.....</p> <ul style="list-style-type: none"> a. Two groups of people on Sumbawa b. Western population c. Sasak people d. Bimanese 	A	I	Line 8-10
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The following text is for questions 33-36

Garuda WisnuKencana Statue

Garuda wisnuKencana statue is a gigantic, unfinished statue which becomes one of the greatest tourist attraction in Bali. It is situated at GWK cultural park, a park which is intended to educate its visitors the importance of preserving and cultivating world's cultural heritage, at the southern part of Bali. Designed and built by NyomanNuarta, one of Indonesia's foremost modern sculptor, the garudawisnukencana statue or Gwk and its pedestal building, when completed, will stand 150 meters tal with a wing span 64 meters across. The statue pictures Lord Wisnu, as the source of wisdom, riding on the back of the mythical bird garuda as the manifestation of conscience toward Amerta, the perennial goodness. Although it is no completed yet.this breathtaking statue has attracted a lot of visitors.

The statue and its pedestal are surrounded by more than 240 hectares cultural park which was once an abandoned and unproductive limestone quarry. Local and foreign visitors can enjoy the picturesque scenery and attractions there, with supporting facilities such as lotus pond, festival park, amphitheater, street theater, exhibition hall, as well as Jendela Bali the panoramic resto and souvenir shop.

NO	QUESTION	ANSWER	CATEGORY	CLUE
33.	The communicative purpose of the text is..... a. To relate the writer's visit to GWK cultural park b. To describe the Garuda WisnuKencana statue c. To announce the opening of GWK cultural park d. To inform the building of the Garuda WisnuKencana statue.	B	I	Line 1-2
34.	Where is the cultural park situated? a. At the eastern part of Bali b. At the western part of Bali c. At the southern part of Bali d. At the northern part of Bali.	C	L	Line 2-4
35.	How tall will the statue and its pedestal building be, when completed? a. 64 meters b. 150 meters c. 240 meters d. 400 meters	B	L	Line 5-6
36.	The following statements are correct,EXCEPT..... a. Garuda wisnukencana cultural park occupies more than 240 hectares b. NyomanNuarta is a sculptor who designed the garudawisnukencana statue c. The statue is picturing lord wisnu, riding on the back of the mythical bird garuda d. There are such supporting facilities as small cottages	D	I	Line 11-13

The following text is for questions 37-41

Bali

Bali is an island in the Indonesia archipelago. It is in the south of the equator and has warm weather all the year. The rainy season is November to April , but it can rain anytime. Bali is 120 kilometers wide from east to west and 80 kilometers from north to south, so everywhere is quite close to the sea. Bali is shaped like a diamond. Mouth Agung, a volcano, is 3.142 meters high and is visible from far away. Most of the people are Hindus. There are many temples and many religious festivals. Tourism is the most important industry. Many tourists visit Bali to see beautiful scenery and interesting festivals, to swim in the warm seas, to look at beautiful mountains and valleys, and to shop for inexpensive and beautiful clothes, paintings, and wood crafts.

NO	QUESTION	ANSWER	CATEGORY	CLUE
37.	What is the text about? a. The description of Bali b. The description of Indonesia archipelago c. The description of season d. The description of people in Bali.	A	L	Line 1-2
38.	Where is Bali located? a. It is along the equator b. In the south of equator c. 120 km from east to west d. Close to many temples and Mount Agung	B	L	Line 1-2
39.	The last paragraph is about... a. The location of Bali b. The most important industry in Bali c. The most popular thing in Bali d. Beautiful mountains in Bali	B	I	Line 6-7
40.	The tourism industry in Bali offers us the following thing,	B	L	Line 6-8

	except a. Culture and nature b. Belief and religion c. Handicraft and tradition d. Wood crafting and painting			
41.	Which one of the following statements is NOT TRUE according to the text? a. Bali has four seasons b. Bali is beautiful and interesting c. Bali is surrounding by the sea d. Bali is one of tourism destination in Indonesia	A	L	Line 1-2

Bongo the Orangutan

There is an orangutan in the Bandung zoo. People call her Bongo. She comes from a dense forest on the island of Kalimantan.

She has physical features similar to human; Bongo has brownish fur, and walks with two feet. They like eat banana. Bongo is almost as big as a human. She is a mammal that means she gives birth to her children and breasts feed them.

NO	QUESTION	ANSWER	CATEGORY	CLUE
42.	Who is Bingo? a. A monkey b. An elephant c. An orangutan d. A cat	C	L	Line 1-2
43.	Where Bongo does comes from? a. Jakarta b. Bandung c. Surabaya d. Kalimantan	D	L	Line 1-2
44.	Bongo has physical features	A	L	Line 3-4

	similar to...? a. A human b. An elephant c. A monkey d. A dog			
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The following text is for question 45-50

Peter is the youngest in our family. He is fourteen years old and four years younger than me. He has long, straight hair, bright eyes and a friendly smile. Sometimes he is rather naughty at home, but he usually does what he is asked to do. Peter is interested in sports very much, and at school, he plays football and tennis. He is the best badminton player in our family.

NO	QUESTION	ANSWER	QUESTION	CLUE
45.	Which of the following statement is not true about Peter? a. He has long and straight hair. b. He has bright eyes. c. He is interested in sports. d. He plays football and tennis.	D	L	Line 4-5
46.	According to the passage, we know that Peter is a. The writer's youngest brother b. The writer's elder brother c. A naughty boy d. A friendly boy	A	I	Line 1-2
47.	It is implied in the passage that a. Peter is naughty. b. Peter is lazy. c. Peter is unfriendly. d. Peter is diligent.	A	I	Line 2-3
48.	From the text, we may conclude that.... a. Many people do not like Peter.	C	I	Line 3-4

	b. People is older that the writer. c. Peter is a welcoming person. d. Peter is not diligent at all.			
49.	What is the text mostly about? a. Peter b. Peter's hobby c. Peter's family d. D. peters' elder brother	A	I	Line 1-5
50.	“Peter <u>is interested in sports very much</u> , and at school he plays football and tennis.” The underlined phrase can be replaced by a. Dislike sport b. Really likes sport c. Hates sport very much d. Finds sport not really entertaining	B	I	Line 4-5

To measure the validity of the instrument, the writer used the formulation of Product Moment by Pearson as follows:⁷¹

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

Where:

r_{xy} : Total coefficient of correlation

$\sum X$: Total value of score X

$\sum Y$: Total value of score Y

$\sum XY$: Multiplication result between score X and Y

N : Number of students

⁷¹Riduwan, *Metode dan Teknik Menyusun Thesis*, Bandung: Alfabeta, 2007, P. 110

To know the level of validity of instrument, the value was interpreted base on the qualification of validity as follows:

$$t_{\text{test}} > t_{\text{table}} = \text{Valid}$$

$$t_{\text{test}} < t_{\text{table}} = \text{Not Valid}$$

Table 1.4

Criteria of Validity

Validity	Interpretation
0.800-1.000	Very High Validity
0.600-0.799	High Validity
0.400-0.599	Fair Validity
0.200-0.399	Poor Validity
0.000-0.199	Very Poor Validity

G. Instrument Reliability

Reliability is necessary of any good test: for to be valid at all, a test must first be reliable as measuring instrument. The writer used formula of Kuder and Richardson to measure the reliability of the whole test:⁷²

$$r_{11} = \left(\frac{k}{k-1} \right) \times \left(1 - \frac{M(k-M)}{k \cdot s^2} \right)$$

Where:

r_{11} : Reliability of instrument

⁷²SuharsimiArikunto, *Prosedur Penelitian* ,Jakarta, PT. Rineka Cipta,2006P. 108

K : Number of items

M : The mean score on the test for all the testers

S : The standard deviation of all the testers' score

The steps in determining the reliability of the test

- a. Making tabulating of tester's scores.
- b. Measuring the mean of the tester's scores with the formula:

$$M = \frac{\sum X}{N}$$

- c. Measuring the standard deviation of all the testers' score with the formula⁷³:

$$SD = \sqrt{\frac{\sum x^2}{N}}$$

Where:

SD : The Standard Deviation

$\sum x^2$: The total of deviation

N : Number of Cases

- d. Calculated the instrument reliability using KR-21.
- e. The decision is comparing the value of r_{11} and r_t

$r_{11} > r_{table}$ = Reliable

$r_{11} < r_{table}$ = Not Reliable

⁷³TriwidSyafarotunNajah, *Statistik Pendidikan*, STAIN Palangka Raya, 2012, P. 62

- f. To know the level of reliability of instrument, the value of r_{11} is interpret based on the qualification of reliability as follows:

Table 1.5
Criteria of Reliability

Reliability	Interpretation
0.800-1.000	Very High Reliability
0.600-0.799	High Reliability
0.400-0.599	Fair Reliability
0.200-0.399	Poor Reliability
0.000-0.199	Very Poor Reliability

- g. Instrument reliability, level of difficulty.

H. Normality

Normality is a test normal to whether or not the distribution of research data. Testing the normality of the data it's done by comparing a normal curve formed by the data that has been collected with the standard normal curve/ standard.⁷⁴

I. Homogeneity

Homogeneity test aims to test the equality some sample. Homogeneity is also known if all random variables in the sequence or vector have the same finite variance.⁷⁵

⁷⁴Sugiyono, *Statistik Untuk Penelitian*:Bandung, CV.Alfabeta,2006,p.77

⁷⁵*Ibid*,p.136

J. Level of difficulty

The index of difficulty (or the facility value) of an item simply shows how easy or difficult the particular item proved in the test.⁷⁶ To know the level of difficulty of test, the writer uses formula as follows:

$$F.V = \frac{R}{N}$$

Where:

F.V= index of difficulty

R = number of the student who get the right answer

N = The total of students.⁷⁷

Then, the result of the formula above is related to the value of F.V as the following classification:⁷⁸

F.V 0.00 – 0.30 = Difficult

F.V 0.30 – 0.70 = Fair

F.V 0.70 – 1.00 = Easy

K. Data Analysis Procedure

The writer used statistical t_{test} to answer the problem of the study. In Order to analyze the data, the writer did some procedures:

1. Gave pre test and post test both experimental and control group

⁷⁶J.B. Heaton, *Writing English Language Test*, p.172

⁷⁷*Ibid* p. 172

⁷⁸AnasSudjiono, *Pengantar Evaluasi Pendidikan*, Jakarta:PT. Rajagrafindo Persada,2007.p.372

2. Collected the data of the students' worksheet tests result.
3. Gave score to the students' test result by using formula:

$$Score = \frac{B}{N} \times 100\%$$

B : Frequency of the correct answers

N : Number of test items

4. Tabulated the students' score into distribution of frequency in the table, then find out the mean of students' score, standard deviation, and standard error of variable X 1 (Experiment Group) and X 2 (Control Group) by using the formulas bellow:

- a. Mean of students' score

$$\bar{X} = \frac{\sum fX_i}{n}$$

Where:

$\sum fX_i$: Total of score

N : Total of the students

- b. Standard Deviation⁷⁹

$$SD_i = \sqrt{\frac{\sum fx'^2}{N} - \left(\frac{\sum fx'}{N}\right)^2}$$

- c. Standard Error⁸⁰

$$SE_M = \frac{SD}{\sqrt{N-1}}$$

Where:

⁷⁹Riduwan, *Metode dan Teknik Menyusun Thesis*, Bandung: Alfabeta, 2010, P. 351

⁸⁰AnasSudijono, *Pengantar Statistik Pendidikan*, Jakarta: Rajawali Press, 2012, P. 282

SE_M : Standard error of the mean

SD : Standard deviation

N : Number of cases

1 : Number of constant

5. Normality Test

It is used to know the normality of the data that is going to be analyzing whether both groups have normal distribution or not.

6. Homogeneity Test

It is used to know with the experimental group and control group, that were decided, come from population that has relatively same variant or not.

7. Calculated the data by using T-test to test the hypothesis of the study, whether use two stay two stray technique gave effect to the students reading score or not. To examine the hypothesis, the writer uses T-test. T-test is statistical test which is used to examine the truth or falseness of null hypothesizes states that between two of Sample Mean taken randomly from the same population, there is no significant different.⁸¹T-test is used to measure whether two stay two stray technique give effect to the students reading on descriptive text score using formula as follows:

$$t_o = \frac{M1 - M2}{SE_{m1 - m2}}$$

$M1 - M2$: The difference of two means

⁸¹AnasSudijono, *PengantarStatistikPendidikan*, Jakarta: Raja GrafindoPersada, 1987, p.278.

$SE_{m1 - m2}$: The standard error of the difference between two means

To know the hypothesis was accepted or rejected using the criterion:

If t-test (the value) $\geq t_{table}$, it means H_a is accepted and H_o is rejected.

If t-test (the value) $\leq t_{table}$, it means H_a is rejected and H_o is accepted.

8. Interpreted the result of t-test. Previously, the writer accounted the degrees of freedom (df) with the formula:

$$df = (N_1 + N_2 - 2)$$

Note:

df : degrees of freedom

N_1 : Number of subject group 1

N_2 : Number of subject group 2

2 : Number of variables

After that, the value of t_{test} is consulted on the t_{table} at the level of significance 1% and 5%. In this research, the writer used the level of significance at 5%. If the result or t-test is higher than t_{table} , it means H_a is accepted.

9. The writer made the conclusion of data analysis obtained.
10. In addition, the writer used SPSS 21.0 program to compare the data.
11. Discussed and conclude the result of data analysis.