#### **CHAPTER III**

# **RESEARCH METHOD**

In this chapter, the researcher presents the research design, population, sampling and sample, instrument and instrumentation of the research, validity and reliability testing, normality and homogeneity testing technique data collection, technique of data analysis and hypothesis testing.

## A. Research Design

In this research, the researcher was conducted in a quasi-experimental design using quantitative approach. The invetigate of effective to SQ4R method on students reading comprehension. Latief (2012) states that experimental research is aimed to manipulate and control the case variables and processed to observe the change in the effect variables. Several types of experimental research, some types are truly experimental, quasi experimental and pre-experimental, Latief (2012).

The quasi-experimental research was applied since the researcher could only assign randomly different treatments to two different classes. This condition happened because it was not possible to select the sample randomly out of all the population. The implementation of quasi was due to the circumstances in which the research is not granted permission to randomly assign the research subject to meet the criteria of true experimental (Creswell, 2012:219).

In this study, the reasearcher divides the sample into two groups: a control group and experimental group. There are two groups of subject (VIII-A as experimental group and VIII-B as a control group). Group VIII-A took the pre-test  $(Y_1)$ , received the SQ4R treatments (X), then took the post-test  $(Y_2)$ , while group VIII-B took the pre-test  $(Y_1)$ , received convensional strategy, and took the post-test  $(Y_2)$ . Group VIII-A was treated as the experimental group, while group VIII-B as the control group. Finally, reading comprehension test was administered to both groups (experimental and control group). The post-test results were compared, to see whether the experimental group significantly out performed the control group.

Basically, the experimental and the control group participated in almost similar teaching and learning activities. The differece between those two groups was on the strategy being used, the experimental group was using SQ4R strategy and control group was taught by using convensional strategy.

The researcher figures out the students's difficulty in reading comprehension of narative text. Especially, to find the out the difficulties of the students to understanding the reading comprehension about the element of the story; finding supporting detail of the passage, finding specific information from the passage, determining the implicit main idea of the passage, determing pronoun referent used in the passage, finding inference from the passage and evaluating person's character. Their answer represented their ability in reading comprehension, which mostly related to understanding the information of the text bot implicitly and explicitly.

Using SQ4R strategy, the students followed the steps, the first step was survey, the students skimmed for an overview of content and purpose, checked the meaning of key terms. It's about five to seven minutes. Next, question. The students asked to make a question using "WH question". Read, the teacher asked the students to answer the question raised, scanned for specific information and made notes. Recite, restated main idea and a key concept in their own words. Review, the students reviewed objectives for reading and question posed earlier. Last, Reflect, the students made connections with what they already known about the text and how they use the information.

The factorial design is used when the researcher manipulates an experimental variable to measure the effect of an independent variable across different sub group in the sample (Latief 2015: 99). The quasi factorial design can be seen in table.

Table 3.1. The Quasi-Factorial Design of this Study

Learning style	Strategy		
	SQ4R(A <sub>1</sub> )	TRA (A <sub>2</sub> )	
Visual	Cell 1	Cell 4	
Auditory	Cell 2	Cell 5	
Kinesthetic	Cell 3	Cell 6	

Where:

A<sub>1</sub> : students taught by using SQ4R strategy

A<sub>2</sub> : students taught by using convensional strategy

Cell 1 : students with visual learning styles taught by SQ4R strategy

Cell 2 : students with auditory learning styles taught by SQ4R strategy

Cell 3 : students with kinesthetic learning style taught by SQ4R starategy

Cell 4 : students with visual learning styles taught by convensional

strategy

Cell 5 : students with auditory learning styles taught by convensional

strategy

Cell 6 : students with kinesthetic learning styles taught by convensional

strategy

## **A.1 Process of Treatment**

This study was conducted from April 8<sup>th</sup>, 2019 to May 13<sup>th</sup>, 2019 in ten meetings. The eight meetings provided for this study were based on some considerations one of which was the eight graders. The time schedule was based on some consideration, such having sufficient length of time of reading the narrative text. One meeting for ditributing questionnaire students learning styles and pre-test, eight meeting for treatment, and one meeting for post-test. Those meetings were described as follows. The first meeting was distributing questionnair and pre-test, the second meeting was introductionand treatment, the

third until the eight meetings were treatments given to the experimental group and the last meeting was post-test.

Both experimental and control groups were given a pre-test in the first meeting of the research. The function of the test is to see the normality and the homogeneity of the class. From second to the third meeting the two groups both experimental and control groups were taught with different strategy, for experimental group was taught using SQ4R strategy, and the control group was taught with convensional strategy, the students of experimental and control group were taught by using the same material but different in strategy and the same days and period.

As long as the process of treatment, the experimental group was taught by using SQ4R strategy and for control group was taught by implementing a strategy that commonly used in the classroom of MTs Al-Huda Tulungagung (convensional strategy). Both groups were given, the same material about narrative text. The material was in the form of narrative text which consisted 3-5 paragraphs. The researcher took the material from website in internet, students activity book and previous national examination.

Table 3.2. The Schedule of the Treatment for Experimental Group

Meeting	Experiemntal Group	Date

1.	Introduction SQ4R strategy.	8 <sup>th</sup> April 2019
2.	Implemented of SQ4R strategy	15 <sup>th</sup> April 2019
3.	2 <sup>nd</sup> treatment: discussing text in title	19 <sup>th</sup> April 2019
	"The Boy and the Empty Basin".	
4.	3 <sup>nd</sup> treatment: discussing text in	22 <sup>nd</sup> April 2019
	title "The Magic Box".	
5.	4 <sup>nd</sup> treatment: discussing text in	26 <sup>th</sup> April 2019
	title "The Prience and the Pea".	
6.	5 <sup>th</sup> treatment: discussing text in title	29 <sup>th</sup> April 2019
	"The Good Stepmother".	
7.	6 <sup>th</sup> treatment: discussing text in title	3 <sup>nd</sup> May 2019
	"Fortune Teller".	
8.	Reflecting	6 <sup>th</sup> May 2019

The researcher taught the classes together with the teacher as long the research happened. This was done by researcher to avoid bias in the direction of his expectation toward the result of the treatment. This consideration also to avoid the experiment effect in which certain way that researcher does may influence the outcome. The detailed activities of the treatment for the experimental can be seen in Appendix 1.

In implementing the experiment, the researcher was helped by the English teacher of MTsN Al-Huda Tulungagung to teach both experimental and control groups. In the experimental group and control group, sixth meetings were taught by the researcher and Englisg teacher of MTsN Al-Huda Tulungagung. Every meeting in experimental group and control group had different narative texts.

In the first meeting both experimental group and control group were given pre-test, the pre-test was given to identify the normality and the homogeneity of both control and experimental groups. Next, the second meeting, the control group was taught with convensional strategy while the experimental group was taught by using SQ4R strategy. In this time, the students were introduced the function and how to use the SQ4R strategy.

Next, the third meeting, the experimental group was taught by using SQ4R strategy. On the first treatment for the experimental group, the researcher showed the picture to the students related to the topic, asked students questions about the picture and connected the picture with the students real life by asking some questions to the students. The researcher gave a narrative text, the students were asked to *Survey*, asked students to identify unfamiliar words from the text, asked students to find the meaning of word listen, and asked the students to discuss the result of the text survey.

Next, *Question*, the researcher guided the students to make question based on the text by using 5W1H, asked the students to make a list question they expected to be answered in the reading. Use the first sentence in each paragraph to ask question. Gives a time to the students to consider their questions and let them to write on the book. Then, *Read*, the students were asked to read the text, having the students to read the text silently. Asking the students to look for the answer to the previously formulated questions and guiding the students to get the main idea and its details sated in paragraph.

Record, the students found information and the purpose of the text. After that Recite, the students answered the questions they made, the researcher asked the students to think about the material and discussed and invited the students to report their works result. Finally, Review, the researcher asked the students to read to verify whether they recited answer correctly and made sure they had points of the text. These steps performed the same in each treatment.

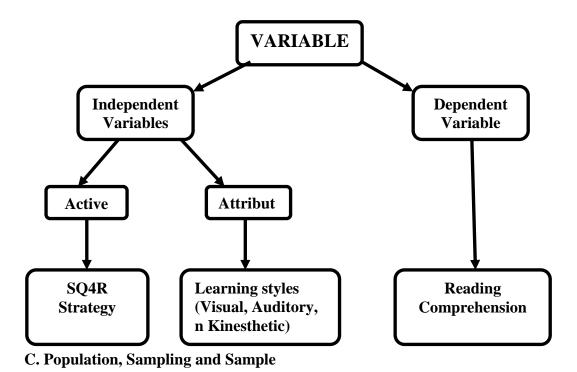
For the control group, the researcher showed picture to the students related the topic. The researcher asked the students questions about the picture and connected the picture with the students real life by asking some question to the students. Then, the researcher read text loudly as the model of reading. The researcher asked the students to read the text one paragraph to each student. The teacher monitored the students reading and gave correction to the students' pronunciation. Next, the researcher asked the students to find the difficult words in the text and find the meaning. After that, the researcher gave questions based on the story in the text. Finally, the researcher discussed the students' answer with students orally.

On the fourth to the seven meetings, the teacher and the researcher did the same activities only the different text in each meeting. At last, in the eighth meeting, both experimental and control groups were given the post-test to measure the effectiveness of the strategy.

#### **B.** Variables

The variables in this research consist of two, the first variable is independent variable "cause" variable SQ4R strategy, and the dependent variable "effect" variable is students' reading comprehension ability in comprehension. The independent variable consist of active and attribute variables. The active variables consisted of SQ4R conventional strategy frequently use in the school as the setting of this study, while the attribute variable was students' different learning styles, namely visual, auditory, and kinesthetic learning styles. The dependent variable is students' reading comprehension ability to see the effectiveness of independent variable, in this case.

Figure 3.1. Figure of Variables



# 1. Population

The population of this research is the whole students of the eighth grade students of MTs Al-Huda Tulungagung in the academic year 2018-2019 that consist of three classes. The total population of the eight grade that consists of 94 students. After determining the population, the researcher takes the sample to be the representative of the population.

## 2. Sampling

Sampling is a process of selecting a number of the students who will be represent from the large group (Ary, 2010:155). To determining the one group of sample, the researcher used purposive sampling. Purposive sampling is a type of nonprobability sampling where the researcher consciously selects subjects for addition in a study so as to make sure that the elements will have certain characteristics pertinent to the study.

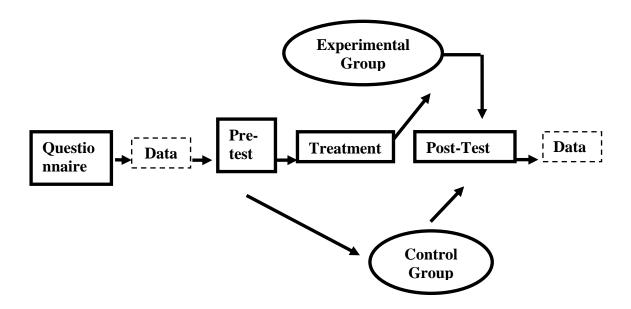
# 3. Sample

Sample is a group of subject or participant (students) is chosen from the populations to be a representative (Fraenkel and Wallen, 2009:90). It means that a good sample must be representative of the entire as possible, so that the generalization of the sample as true as population. To take a sample the researcher use purposive sampling where the researcher choose VIII-A class to be a sample that consist of 45 students, and VIII-B class to be a sample that consist of 50 students at MTs Al-Huda Tulungagung in academic year 2018/2019 that believed that this class can give sufficient information.

#### D. Data Collection Method and Research Instrument

#### **D.1. Data Collection Method**

In accordance with the research design of this research, the process of data collection generally carried out in this research is catagorized into three stages. Those are questionnaire, pre-test, treatment process and post-test. In this research, the researcher collecting the data through administering test to test while collecting the data learning style through distributing questionnaire. For the clear explanation, each stage will be explanined in figure 3.2. **Figure 3.2. Plans for Data Collection** 



The technique of collecting data is clarified as follows:

# **D.1.1 Distributing Questionnaire**

The questionnaire was given before pre-test in both experimental and control group. The questionnaire is about the students' learning style. The questionnaire given twenty five

questionnaires to see their learning style, for completing the data. The Chislett and Champman (2005) questionnaire's design was adapted. There were three students' learning style; visual, auditory, and kinesthetic learning style.

The students were required to choose the options (A, B, or C) that represent their learning style. There were thirty indicators with three options, "A" refers to visual learning style, "B" refers to auditory learning style and last "C" refres to kinesthetic learning style. In this study, the researcher used VAK learning style questions adapted from the Chislett and Champman (2005) considered appropriate. To make the student easier to answer the questionnaire, the researcher translated it into Indonesia, see Appendix 5.

#### D.1.2 Pre-test

The pre-test was conducted before giving treatment, and its score was used to know the normality and homogenity between control and experiemental groups, to check that both group xperiment and control have the same or equal achievement. The pre-test was conducted on the same day and date but different time or period. In the pre-test, both control and experimental group were given five texts with twenty (20) multiples choice questions, to compare whether or not both the group homogeny and normal. The time allotment was 60 minutes. There were 25 students in the experimental group and 25 students in control group.

#### **D.1.3 Post-Test**

Post-test is done after the students get treatments is taught by using SQ4R Technique in teaching reading comprehension. The researcher gave both experimental and control group students reading comprehension test to know the students' reading comprehension score. The researcher informed the purpose, procedure and time allocation test. In this case, the researcher gave 20 question, the questions were in the form of multiple choices. Both control and experimental groups were given fiven five texts and twenty multipel choices. The result of post-test were compared to see whether the experimental group significantly out performed the control group.

The post-test was conducted in the eighth (8<sup>th</sup>) meetings. The experimental group was given treatment using SQ4R, and the control group was taught with translation and reading aloud. After post-test had been done, the researcher gave the learning styles questionnaire to the students.

#### E. Research Instrument

Instrument of research are the tools to measure something that we observe in order to obtain the data and answer the research problems (Sugiyono, 2011). The instrument used by the researcher is a test which it is given before and after taught by using SQ4R technique.

This reserach untilizes questionnaire, classified based on their learning style. Then, the second instrument is a reading comprehension test. The reading comprehension test was untilized to both experimental and control to yield students' reading comprehension post-test score. The instrumentation will be developed through the following steps (see figure 3.3.)

Review Literature

Drafting Instrument

Expert Validating

Revising Draft

Conducting Try- Out

Use \alpha Cronbach

Revising

Final Draft Instrument

Figure 3.3. Instrumentation.

The steps of instrumentation that do by the researcher, are:

#### 1. Review Literature

The researcher reviewed some literatures from syllabus and book used in MTs Al-Huda Tulungagung on year 2018/2019 to get some important information as sources to drafting instrument that related with the

materials of reading text. There are three kinds reading types that learned by students, are: Narrative, Descriptive, and News Item.

# 2. Drafting Instrument

After get some information from syllabus and book used in MTs Al-Huda Tulungagung, the researcher started to draft instrument which is related with Narrative text because the first reading types on second year that should be master by students is narrative text.

# 3. Expert Validating

After finishing the drafting instrument, the instrument was validated it by the expert like English teacher or lecturer where master the reading materials especially narrative text. The purpose of the expert validating is to know how much valid the instrument is either related with its construct validity, face validity, content validity or criteria related validity. So, in this steps the researcher will get feedback and validation guide from the expert.

# 4. Revising Draft

In revising draft of the instrument, the researcher uses feedback collected from the expert validation. The feedback is to correct the grammar and the questions should be in well organized.

# 5. Conducting Try- Out

After revising the draft of the instrument, the researcher conduct try the instrument out to the eight grade students (VIII-A class) of MTs Al-Huda Tulungagung who share common characteristics with the subjects of this research. The result of try out which is analyzed by using Cronbach's Alpha is used to revise the draft to be the valid instrument because the reliability and validity of the instrument can be objectively computed by using the formula of Cronbach's Alpha.

# 6. Revising

The researcher revise the instrument again based on the feedback from conducting try out to get the final draft instrument. So, the researcher will revising the instrument to make the questions ideal or not easy or too easy, difficult or too difficult.

#### 7. Final Draft Instrument

The last step is final instrument means that the instrument has good or best quality where the instrument is appropriate. After it, the researcher conduct the instrument to pre-test and post-test.

In this research, the researcher applied pre-test and post-test. Pre-test was given before teaching by using SQ4R strategy in this pre-test students were given task during 45 minutes on 8<sup>th</sup> April 2019 and for the 45 minutes again for giving treatment to the students. The next treatment given the second meeting during 45 minutes on 15<sup>th</sup> April 2019 until, 3<sup>nd</sup> May 2019. Post-test which was given after teaching SQ4R strategy, in this post-test the students given task by using SQ4R strategy during 45 minutes after the last meeting for giving treatment on 6<sup>th</sup> May 2019.

To get the data, which is VIII- A class that becomes an experimental group the researcher as a teacher teaches the students during eight meetings.

First meeting, in the teaching learning process the teacher give pre-test in reading comprehension. Second until six meeting, the teacher teaches reading comprehension by using SQ4R strategy. In the end, the teacher gives post-test in reading comprehension to the students.

# F. Validity and Reliability Testing

# F.1 Validity

After finishing the drafting instrument, the instrument validates it by the expert like English teacher or lecturer where master the reading materials especially narrative text. The purpose of the expert validating is to know how much valid the instrument is either related with its face validity, construct validity, and content validity. So, in this steps the researcher will get feedback and validation guide from the expert.

The validity of test as extent to which it measures what is supposed measure and nothing else (Heaton, 1989:159). To measure whether the test has a good validity, the researcher analyzed the test from face validity, content validity, and construct validity.

#### **F.1.1** Face validity

Face validity if it looks as it measures what it is supposed measure. For example, a test which pretended to measure pronunciation ability but, which did not require the test-takers to speak might be through to lack face validity. This is true even if the test is constructing and criterion-related validity can be demonstrated. Face validity is hardly a scientific concept, yet it is very important. A test which does not have face validity may not be acceptable by test-takers, teachers, education authorities, and employers. The researcher used face validity by consulting with the advisor and teacher.

# **F.1.2** Content validity

A test is said to have content validity is its contents constitutes a representative sample of language skills, structures, its being tested. In order to judge whether or not the test has content validity, we need a specification of the skills or structure being tested. A comparison of test specification and test content is basis for judgment for content validity. The researcher made this test based on the course objective in the English syllabus of MTs Al-Huda Tulungagung. Therefore, this is valid in term of content validity.

**Table 3.3. Result of Content Validity** 

Objective	Types	Specific	Items
		objectives	

To evaluate the	Literal	Finding the	20
students'	comprehension	specific	
reading		information	
comprehension		or facts which	
of the text that		clearly stated	
they read		in the text	

# F.1.3 Construct Validity

The construct validity of test which is capable of measuring certain specific characteristic in accordance with a theory of language behavior and learning. Based on the theory above, in the test the researcher asked the students to answer the multiple choices based on narrative text to measure the student's comprehension in reading and this is fulfill the construct of reading test therefore, valid in term of construct validity.

The validity and reliability of the test can be measured by SPSS Cronbach Alpha. If the result shows alpha > 0,05 means that the reliability is sufficient, while if the alpha < 0,05 means that the reliability is not sufficient or not reliable. Besides, the researcher tried to check the empirical validity by using SPSS 16.0 after trying out the instrument. In this research, the researcher used SPSS 16.0 for windows to know the validity of test instruments.

**Table 3.4. Result of Construct Validity** 

Objective	Type of test	Task
Measuring the	Reading	Students ask to
students' reading	comprehension	answer the reading
comprehension and	test and	comprehension
vocabulary mastery	vocabulary	questions and match
	recognition test.	the right definition of
		the target words.

# F.1.4 Criteria Related Validity

Criteria related validity is to see how far results on the test agree with those provided by some independent and highly dependable assessment of the candidate's ability. This independent assessment is thus the criterion measure against which the test is validated. There are essentially two kinds of criterion-related validity: concurrent validity and predictive validity. (Hughes, 2002: 23)

Table 3.5 Criteria Related Validity Try Out (Predictive Validity)

T

		Try Out _1	Try Out_2
Try Out_1	Pearson Correlation	1	.751
	Sig. (2-tailed)		.000
	N	20	20
Try Out_2	Pearson Correlation	.751 <sup>**</sup>	1
	Sig. (2-tailed)	.000	
	N	20	20

<sup>\*\*.</sup> Correlation is significant at the 0.01 level (2-tailed).

PSS output suggests that the correlation coefficient is was 0.751. It means that there is a positive correlation between variable. It also suggest that the  $\rho$ -value is 0.000. Considering that 0.000 is smaller than 0.05, so the null hypothesis is rejected.

The researcher use *predictive validity*. The predictive validity this concern the degree to which a test can predict candidates' future performence. An example would be how well a proficiency test could predict a student's ability to cope with a graduation at MTs Al-Huda. The criterion measure here might be an assessment of the student's English as perceived by his or her teacher or researchers at MTs Al-Huda.

# F.2 Reliability

The reliability of the test is its consistency (Horizon, 1983:10). The researcher used reliability testing to measure of accuracy, consistency, dependability or fairness of scores resulting from administration or particular examination. Reliability is necessary characteristic of any good test: for it to be valid all, a test must first be reliable as a measuring instrument (Heaton, 1989:162). Reliability is concerned with the effect of such random errors of measurement on the consistency of scores (Ary, 2002:250).

Actually, the ideal test should be both reliable and valid. In this research, the researcher also used SPSS 16.0 for window to know the reliability of test instruments.

The criteria of reliability instrument can be divided into 5 classes as follows (Ridwan, 2004:118), those are:

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

The result of reliability testing by using SPSS 16.0 can be seen from the table:

**Table 3.6 Result of Reliability** 

#### **Reliability Statistics**

Cronbach	N of
's Alpha	Items
.714	20

To know the items is reliable or not it can be seen from Cronbach's Alpha column. The Cronbach's Alpha score = 0,714 means that it is reliable.

# G. Normality and Homogeneity Testing

## **G.1 Normality Testing**

Normality testing is conducted by the researcher to determine whether the gotten data is normal distribution or not. The computation of normality testing in this research using SPSS.16. *One- Sample* 

*Kolmogorov-Smirnove test* by the value of significance ( $\alpha$ ) = 0.05 rules as follow:

- a.  $H_0$ : If the value of significance > 0.05, means data is normal distribution
- b.  $H_1$ : If the value of significance < 0.05, means the distribution data is not normal distribution.

Table 3.7 The Statistical Correlations of pre-test and post-test score (try out) with One-Sample Shapiro Wilk Test

**Tests of Normality** 

	Kolmogorov-Smirnov <sup>a</sup>			Shapiro-Wilk		
	Statistic	Df	Sig.	Statistic	df	Sig.
TryOut1	.234	20	.005	.855	20	.006
TryOut2	.148	20	.200 <sup>*</sup>	.917	20	.087

a. Lilliefors Significance Correction

Based on the Table 3.7 above from the Shapiro- Wilk normality, it showed that the test gives to try out that consist of 20 students. It also that the score test result found that the test level of significance of the Try Out 1 was (sig-value .006>  $\alpha$ .0.05) consist of and for the Try Out 2 was (sig-value .087>  $\alpha$ .0.05). The level of normality test of both Try Out 1 and Try Out 2 groups > $\alpha$ .0.05 it means both Try Out 1 and Try Out 2 were normal.

<sup>\*.</sup> This is a lower bound of the true significance.

# **G.2** Homogeneity Testing

Homogeneity testing is conducted by the researcher to know whether the gotten data has a homogeneous variance or not. The computation of homogeneity testing using SPSS Statistics 16 is *Test of Homogeneity of Variances* by the value of significance ( $\alpha$ ) = 0.05. Before doing homogeneity testing, the researcher decides hypothesis in this homogeneity as follow:

- a.  $H_0$ : If the value of significance > 0.05, means data is homogeny
- b.  $H_1$ : If the value of significance < 0.05, means data is not homogeny

Table 3.8 The Statistical Correlations of pre-test and post-test score (try out) with One Way Anove

**Test of Homogeneity of Variances** 

PreTest

Levene Statistic	df1	df2	Sig.
.306	3	13	.821

Based on the table 3.8 above is known that the sig/p value is 0.821 higher than 0.05 means  $H_0$  is accepted and  $H_a$  is rejected. So, it can be interpreted that the data is homogeny.

# H. Data Analysis

It this reserach, both group used steps namely pre-anlysis testing and hyphothesis testing. Pre-analysis testing fucation to analyze the obtained data

to ful fill the statistic assumption, normality, and homogenity. Meanwhile, the hyphotheses testing is to test the hyphotheses whether or not the students taught by using SQ4R strategy have batter achievement in reading comprehension than those who are taught by using convensional strategy.

This research used dichotomous scoring which nimber untilized is 1 and 0. Point 1 (one) is assigned to a correct answer and zero (0) to an incorrect answer. Since the reading comprehension questions test are 20, the right answer time to five so the minimum score is zero (0) and the maximum score 100. In order to score students' comprehension ability on post-test, the researcher followed the criteria as can be seen in Table 3.9.

Table 3.9. The Criteria of Students Reading Comprehension on Post-test

Criteria	Specification	Score	<b>Total Score</b>
The answer will be	Relevan	1	10
assumed right if it	(correct)		
represent/is relevant	Not Relevant	0	0
	(incorrect)		

The normality is the extent to which a distribution of score approximates the standard normal curve. The Kolmogorov-Sminov test was used to know the rejection or acceptance criteria 0.05 level significance. The second was homogeneity, to know the groups were homogenous in order to obtain information equally. It was tested by using Levene's test with 0.05 level significance criteria too SPSS 20 was used in these tests.

The parametric statistical analysis data was by using analysis of variance (ANOVA). For testing the hypotheses, it was done by analyzing the post-test score. The students' reading comprehension scores were analzed and tabulated to find the minimum and maximum score, median, and standard deviation. After that, the data was analyzed by using an independent *t*-test to find out the effectiveness of SQ4R on students' reading comprehension.

Two steps were done to test the hyphotehses. Fisrts was stating the statistical hyphotheses to answer the research questions. The formula stated as follows:

Null hyphotheses  $1(Ho)_1$ :

The students who are taught by using SQ4R strategy, do not achieve better than those who are taught by using convensional strategy.

Alternative hyphoteses 1(Ha)<sub>1</sub>:

The students taught by using SQ4R strategy, have better achievement in reading nartive text than those who were taught by using convensional strategy.

The researcher stopped the research if the students who were taught by using SQ4R strategy did not achieve better than who were not taught by using without an SQ4R strategy, but if it was contrary, the research would be continued to the following null and alternative hyphotheses.

# Null hyphoteses 2 (Ho) $_2$ :

There is no significant difference in reading comprehension of students who were taught by using SQ4R across students' learning styles.

# Alternative hyphoteses 2 (Ha)<sub>2</sub>:

There is significant difference in reading comprehension students who were taught by using SQ4R across students' learning styles.

The last hyphoteses was the interaction effect between the strategy and the students' learning styles on the students' reading achievement. The formula of the second null and alternative hyphotheses were described as follows.

# Null hyphotheses $3(Ho)_3$ :

There was no interaction between the teaching strategy and the students' learning styles on the students' reading comprehnsion achievement.

## Alternative hyphoteses 3 (Ha)<sub>3</sub>:

There was an interaction between the teaching strategy and the students' learning styles on the students' reading achievement.

The null hyphotheses will be accepted if the result of SPSS shows that the obtained significant level is higher than or equal to the level of significant .05 (p> $\alpha$ ). However, if the p-value is smaller than or equal to the level of significance .05(p< $\alpha$ ) the null hyphotheses will be rejected.

The questinnaire helped reseracher, to find and classify the students based on their learning styles. The student's responses to the questionnaire were computed to find out the students' learning styles. After that resercher investigated data whether or not the certain learning styles students had better achievement than other learning style students in comprehension reading the narrative text.