

CHAPTER III
RESEARCH METHOD

This chapter presents research method including research design, subject of the study, data collection method, validity and reliability testing, normality and homogeneity testing, research instrument, and data analysis.

A. Research Design

Before doing the research, the research would like to arrange a research design. This research was quasi-experimental. The design of this research used nonrandomized control group, pretest-posttest design. This research involved two groups of subject there are experimental class and control class. The experimental class was taught writing by using Crossover Learning strategy and control class was taught without using Crossover Learning strategy. In this research, the researcher was given pretest and posttest to measure different scores on students writing skill. The design of the study was taken from Creswell (2008:314) below is the general overview of quasi-experimental design.

Table 3.1 Quasi-Experimental design

Pre- and Posttest Design			
Time	→		
Select Control Group	Pretest	No Treatment	Posttest
Select Experimental group	Pretest	Treatment	Posttest

Thus, in this study the research used quasi experimental design (an experimental group and control group). Based on the Table 3.1, the procedures of using two group pre-test post-test design were:

1. Administering a pre-test to both classes (8.6 and 8.8) to measure the score of writing achievement of student at second grade in MTsN 01 Tulungagung.
2. Applying the experimental treatment in the 8.6 class to teach with strategy of crossover learning and applying control treatment in 8.8 to teach writing without crossover learning strategy to the student of second grade in MTsN 01 Tulungagung.
3. Administering post-test in both classes (8.6 and 8.8) to measure the score of writing achievement of the student at grade in MTsN 01 Tulungagung.

B. Subject of The study

1. Population

Population is whole of research subject. In Encyclopedia of educational evaluation noted that a population is a set (or collection) of all elements processing one or more attributes of interest (Arikunto, 2010). In this study, the populations are all of second grade students of MTsN 01 Tulungagung consisted of 2 classes 8.6 and 8.8. Gay (2006) stated that population is a certain group of things (people, object, event, etc) chosen by the researcher that can be generalized to the group that has a population

at least one characteristic that distinguishes it from the other group. According to Scott and Johnson (2009:29) population is the universe of people to which the study could be generalized, and a sample is the subject of people from the population who will participate in the current study.

The populations of this research were students in the second grade of Islamic Junior High School of MTsN 01 Tulungagung which was 346 students. The school has nine second grade classes. They 8.1, 8.2, 8.3, 8.4, 8.5, 8.6, 8.7, 8.8, 8.9 in academic years of 2018/2019 and each class were consisting with different number of students.

2. Sample

According to Arikunto (2010) sample is a part of population which is researched. Cresswell (2012:142) state that “a sample is a subgroup of the target population”. The study was quasai-experimental; the researcher took the 8.6 class as the experimental group and 8.8 classes as control group. Two classes consisted of 75 students. The sample of 8.8 classes consisted of 16 boys and 21 girls and the sample 8.6 class consisted of 15 boys and 22 girls.

Table 3.2 : The Research Sample by Class

No	Class	The number of student
1	8.6	38
2	8.8	37
Total of student		75

The sample above was divided into two groups. The first group was class 8.6 as the experimental group and the second group was class 8.8 as

the control group. The experimental was given treatment with crossover learning strategy in their writing achievement. The researcher here made a lesson plans, material, and some activities based on curriculum for the meeting class. The control group was given the same materials but without treatment using crossover learning in their achievement.

Table 3.2 : The Distribution of the Treatment

Group	Class	Treatment	Number of student
Experimental	8.6	Crossover Learning	38
Control	8.8	Without Crossover Learning	37
Total of students			75

3. Sampling

Sampling is a technique to take sample from group of population sampling an important characteristic of inferential, and statistic is the process of going from the part to whole (Ary et al, 2010:148). According to (Sudjana & Ibrahim, 2007) purposive sampling is the technique that is used if the researcher has the certain consideration in determining the sample that is appropriate with the purposive of research. The research took two classes of nine classes from the eighth grade of MTsN 01 Tulungagung in academic 2018/2019 exactly in 8.6 and 8.8 classes.

C. Variables

According to Arikunto (2006), variables are the subject of a research, or the things that become points of attention of a research. In this research, the research uses two variables they are:

1) Independent Variable

According to Sugiyono (2010) independent variable is variable that influence dependent variable. It usually symbolized “X” and use of questioning strategy. In this research teaching writing achievement using Crossover Learning strategy was an independent because it affected the students’ writing achievement.

2) Dependent Variable

Sugiyono (2010:61) states that dependent variable is the variable that have influenced because of any independent variable. It usually symbolized by “Y” and this use to score of the students writing skill. In this research student’s achievement was a dependent variable.

D. Validity and Reliability Testing

There are two important to measuring instrument that through of validity and reliability process.

1. Validity Testing

Validity here is to measure the valid data. Ary (2010) says that validity defines as the extent to which an instrument measured what it claimed to measure. The research gets some information to measuring and has valid testing. While, Fraenkel and Wallen (2006:150) stated that validity is the most important idea to consider when preparing or selecting an instrument for use.

In this research, the researcher used face validity as the subjective measurement, construct validity as the criteria of a person who success in writing achievement, and content validity as a non-empirical which the test is comprehensive of the content to be measured by the test. There are three types of validity context: 1) Content validity, 2) Construct validity, 3) Face validity. All of them was needed to measure the test was good validity.

a. Content validity

According to Gay, (1992:156), content validity is of importance for achievement the test, a test score cannot accurately reflect a student's achievement if it does not measure what the student was supposed to learn. A test is said have content validity if contain structure and skill and accord with syllabus. Thus, the researcher can conclude that the test were valid in content validity because the material are tested have been taught to the students. The researcher made this test based on the course objective in the syllabus of MTsN 01 Tulungagung. Therefore, this test was valid in term of content validity.

Table 3.4 : Content validity

Main competence	4. Mengolah, menyaji, dan menalar dalam ranah konkret (menggunakan, mengurai, merangkai, memodifikasi, dan mmbuat) dan ranah abstrak (menulis, membaca, menghitung, mneggambar, dan mengarang) sesuai dengan yang dipelajari di sekolah dan sumber lain yang dalm sudut pandang/teori.
Basic competence	4.18 Menangkap makna teks naratif lisan dan tulis, berbentuk fable pendek dan sederhana
Indicator	<ul style="list-style-type: none"> - Membaca dan menirukan contoh-contoh interaksi dari ungkapan yang digunakan dalam teks naratif - Menjawab pertanyaan yang didapat mengenai materi narrative text - Mempresentasikan hasil diskusi mengenai materi

	narrative text
Technique	Written test
Instrument	- Pre-test - Post-test

Based on the Table 3.4 above, the instrument of the test could be said have content validity because the test has equal purpose with the core competence and basic competence in syllabus of Curriculum of 2013, which was testing to the student achievement especially in writing with correct structures.

b. Construct validity

Construct validity is any theory, hypothesis, or model that attempts to explain, observed phenomena in our universe of perception (Brown, 2004:45). In this research, the instruments which have been constructed based on the writing. To test the construct validity was used expert opinion. After an instrument was constructed validity about the aspect which be measured based on appropriate theory, then the instrument was consulted with the expert. The expert who was chosen by researcher in this research was advisor of this research lecturer of IAIN Tulungagung, she was Mrs. Faizatul Istiqomah M.Ed. the expert would give their opinion about the instrument which research made. In addition, the researcher also consulted with the teacher of English lessons at MTsN 01 Tulungagung, after got judgment from expert, the instrument could be tried out the second grade student of MTsN 01 Tulungagung which consisted of 33 students to find out the validity of the test.

c. Face validity

According to Ary et al (2010:225) states that face validity refers to the extent to which examines believe the instrument in measuring what is supposed to measure. Hening (1987, p. 192) defines face validity as a subjective impression, usually on the part of examines, of the extent which the test and its forma fulfills the intended purpose of measurement.

2. Reliability

Reliability is measuring of accuracy and consistency also dependently students in doing the test of score by the results. According to Ary et al (2010:237) stated that reliability is concerned with the effect of errors of measurement on the consistency of scores. A test is said reliable when the test is consistent. It means that whenever the test was given, it would show the similar or even the same result of test. In this research, the researcher used SPSS 17.0 for windows to know the reliability of the instrument. Before pre-test and post-test was given in control and experimental class, the researcher was given try-out in same grade class. The try out was given to know the reliability of the pre-test and post-test.

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

**Table 3.5 The result of Reliability Pre-test
Case Processing Summary**

		N	%
Cases	Valid	29	100.0
	Excluded ^a	0	.0
	Total	29	100.0

a. Listwise deletion based on all variables in the procedure.

Reliability Statistics

Cronbach's Alpha	N of Items
.637	5

**Table 3.6 The result of Reliability Post-test
Case Processing Summary**

		N	%
Cases	Valid	33	100.0
	Excluded ^a	0	.0
	Total	33	100.0

a. Listwise deletion based on all variables in the procedure.

Reliability Statistics

Cronbach's Alpha	N of Items
.647	5

To know the items was reliable or not it looked from Alpha Cronbach's columns. In the columns above was written upper its means that the test was reliable. The Alpha Cronbach's score of pre-test is 0,637 it means that the test was reliable. Later, The Alpha Cronbach's score of post-test is 0,647 it means that the test was reliable.

E. Normality and Homogeneity Testing

1. Normality Testing

Normality test is used to test because to know the data normal or not. Normal means if the data have a normal distribution. The main reason of conducting normally testing in a research is that is necessary for the researcher to know that the population or data involved in the research is in normal distribution. The test in this case will be normality by used calculating SPSS.17.0.

2. Homogeneity Testing

Homogeneity test is used to know the computation of test. Before doing homogeneity testing the research decide the hypothesis. According to Prayitno (2009), the assumption of ANOVA testing is the data groups' variance that is homogeneous. The criteria of testing, if the significance is smaller than 0,05 (sig. <0,05) that the data is no homogeneous, in the contrary, if the significance is bigger than 0,05 (sig.>0,05) is mean that the data is homogeneous.

F. Research Instrument

Research instrument used to collect data for getting the data about the students writing skill, the writer uses the instrument of test. According to Ary (2010:201) test is a set of stimuli presented to an individual in order to elicit responses on the basis of which numerical score can be assigned. Sugiyono (2013) stated that the research instrument is a tool for measuring and observing, in order to produce the result of quantitative data. According to Burhan (2014:17) there were two types of test used as

instrument, namely essay test and objective test. Before conducted a test, the research followed some procedure to get the score. The procedure was conducted:

- (1) Selecting some topics of narrative text.
- (2) Constructing questions based on topics choose
- (3) Consulting the test or instrument both the advisor and the English teacher
- (4) Revising it based on suggestion
- (5) Giving try out test

There are two kinds of test they are pre-test and post-test.

1. Pre-test

Pre-test refers to a measurement or test given to the subject prior to the experimental treatment. Pretest was given to the student in experimental and control group to measure their ability before being given a treatment. The test given to know the knowledge of the student before got treatment. Pre-test was given through asking the learner to write a story of narrative text about legends. From the story about the score will be gotten. However, the pre-test was conducted in the first meeting before getting post-test.

2. Post-test

Post-test was used to measure students skill after giving treatment is to know how to far the knowledge their get from the treatment. Post-test will be given by asking the student to write one short story of narrative text about legends in experimental class and the same topics in control class. The test was given to measure the students writing skill after given treatment.

However, the post-test was conducted in the last meeting and sure only one meeting.

Furthermore, the writer gave score to the students' writing by using scoring guide of writing according to Cohen (1994:328-329) the analytic scale is used as described in the Table 3.7:

Table 3.7 Scale for Assessing the Students Writing Ability (Cohen.1994)

Focus/rating	5 (Excellent)	4 (Good)	3 (Fair)	2 (Poor)	1 (Very Poor)
Content	Main ideas stated clearly and accurately, change of opinion very clear	Main ideas stated fairly clearly and accurately, change of opinion relatively clear	Main ideas stated somewhat unclearly and inaccurate, change of opinion somewhat weak	Main ideas not clear or, change of opinion weak	Main ideas not clear or accurate, change of opinion very weak
Organization	Well organized and perfectly coherent	Fairly well organized and generally coherent	Loosely organized but main ideas clear, logical but incomplete sequencing	Ideas disconnected, lacks logical sequencing	No organization, incoherent
Vocabulary	Very effective choice of words and idioms and word forms	Effective choice of words and use of idioms and word forms	Adequate choice of words but some misuse of vocabulary, idioms and word forms	Limited range, confused use words, idioms, and words forms	Very limited range, very poor knowledge of words, idioms, and words form
Grammar	No errors, full control of complex	Almost no errors,	Some errors, fair control of	Many errors, poor	Dominated by errors, no

	structure	good control of structure	structure	control of structure	control of structure
Mechanics	Mastery of spelling and punctuation	Few errors in spelling and punctuation	Fair number of spelling and punctuation	Frequent errors in spelling and punctuation	Not control over spelling and punctuation
$\frac{\text{The total number gotten} \times 100}{\text{The maximal score}} = n$					

Table 3.8 Criteria of Writing Test (Cohen.1994)

No.	Grade	Qualification	Range of scores
1.	A	Excellent	100-85
2.	B	Good	84-70
3.	C	Fair	69-55
4.	D	Poor	54-50
5.	E	Very poor	49-0

G. Procedure of the Research

In this study, the treatment administrated into for meeting with pre-test and post-test since the researcher has no authority to conduct more than it moreover the class did not belong to the researcher herself. The treatment was given after conducted the pre-test and before the post-test. The research has a schedule to know when the procedure was doing; it can be seen in Table 3.9 below:

Table 3.9 The Schedule of the Research

No.	Group	Meeting	Date	Activity	Time
1.	(8.9) class	1	Saturday, February 16 th 2019	The researcher gave try-out	5-6

2.	Control (8.8)	2	Monday, February 18 th 2019	Pretest and treatment 1 without Crossover Learning	3-4
3.	Experimental (8.6)		Tuesday, February 19 st 2019	Pretest and treatment 1 with applied Crossover Learning strategy	
4.	Control (8.8)	3	Wednesday, February 20 th 2019	Treatment 2 without Crossover Learning	3-4
5.	Experimental (8.6)			Treatment 2 with Crossover Learning strategy	5-6
5.	Experimental (8.6)	4	Thursday, February 21 st 2019	Treatment 3 with Crossover Learning strategy	3-4
6.	Control (8.8)		Monday, February 25 th 2019	Treatment 3 without Crossover Learning	
8.	Experimental (8.6)	5	Wednesday, February 28 th 2019	Post-test and Treatment 4 with Crossover Learning	3-4
9.	Control (8.8)			Post-test and Treatment 4 without Crossover Learning strategy	5-6

The test was given by conducted pre-test and post-test which about writing narrative text. Those tests were done in the first meeting and the second meeting. In the meeting, a treatment was given before post-test. In

this research, the group was given treatment with Crossover Learning strategy is experimental class only. The procedure of meeting can be seen as follow:

1. First, try-out was conducted on February 16th 2019

In the research, the researcher was given try-out in 8.9 classes before conducted pre-test and post-test in control and experimental group. Try out was given is to measure student how to far known students about writing narrative text in English subject. In this meeting, the researcher was given try-out only without treatment and explanation early.

2. Second, pre-test and treatment I was conducted on February, 18th – 19th 2019

Pretest and treatment I was given into control group and experimental group. In the control group a treatment was given without crossover learning. Therefore, the experimental group was given with crossover learning strategy. Before applied the Crossover Learning strategy, the research introduced the Crossover Learning strategy to teach writing skill on narrative text. Then, the researcher asked to the students to prepared a piece of paper then asked the student to write about what is a narrative text and some of generic structure of narrative text that they know.

3. Third, treatment II was conducted on February, 20th 2019

In the thirds meeting, the second treatment was given both of groups (experimental groups and control group). In the control group was

given treatment almost the same with the second meeting. The students' were finished written about narrative text: definition, structure of narrative text, and the characteristics of narrative text. And then the researcher asked the students' to share the result in front of the class. In other side, in experimental group was given treatment with crossover learning. Here, the students ask to find their problems onto informal learning about the difficulties of narrative text and they can ask some question to some people about their problems. After that, when the students finds out their solve problem who share with their friends in formal learning or in the classroom. However, in experimental group have more times to do their task problem and they must correct finished about the narrative text without evaluation in the classroom.

4. Fourth, treatment III was conducted on February, 21st , 25th 2019

In the fourth meeting, the researcher conducted the treatment III. Here, the before treatment focuses onto narrative text and some of generic structure of narrative text later here the researcher was given practice to written a paragraph of narrative text. The student was written a paragraph of narrative text about legends story. A paragraph of narrative here contains the correct structure and follows with rules of writing. The third treatment here was given onto control group and experimental groups. The treatment was given with same level, title and same about written of paragraph about legends story.

5. Fifth, treatment was IV conducted on February, 28th 2019

In the last meeting, the fifth treatments are same given into control group and experimental group. In the fifth treatment, the student's continued the writing and exchanges their writing with our friends. Later, they must find some errors with the story. After finished they return with our friends and correct their mistakes. After that they can share in front of the class. Therefore, after finished the two groups are given post-test. Here, post-test was given into control groups and experimental groups with level and about the same story. Here, the students must be finished their written on times that was given.

H. Data Collecting Method

Data collecting method is the way the researcher to collect the data. Method of data will provided reality about some steps which are used in the process of collecting data. Researcher used two kinds of tests and one treatment after given a pre-test. They are:

1. Try Out

According to Arikunto (2010) he says that the result of try out can be used to measure the validity and the reliability of the test, and it can be carried out in either a small number or a large number. However, the try-out conducted is to determine the extent to which it discriminates between individuals who are different. The purpose of try out was given to

improvement the knowledge about writing of narrative text. Try-out was given to student is to understand about writing narrative text.

2. Pre-Test

Pre-test was given to the students before the researcher taught by using Crossover Learning strategy. Pre-test is needed to know how far the student's writing skill in English subject without using Crossover Learning strategy. The form of pre-test is essay about narrative text. The pretest given to know the basic competence for students and to know them earlier knowledge before they get treatment.

3. Treatment

The treatments are given in two groups. The experimental group class was taught given treatment by using Crossover Learning strategy in teaching and learning writing narrative text. Treatment was given after pre-test and before practice to write narrative text. Otherwise, the control class was taught without using Crossover Learning strategy. The treatment was given with explained about narrative text. And then, ask the student to practice write narrative text. A story of narrative text was different between experimental class and control class.

4. Post-Test

After the treatment, the post test was given to the student's. The test item in the post-test was different with pre-test, but both of them had same indicators and the text was almost same in level of difficulties. This test is to measure student's writing skill after treatment applied. The form post-

test was also essay about narrative text too. It was given to know the final score and the student's difference skill before and after they get the treatment. Time allocation to answer the task is 35 minutes.

I. Data Analysis

In this data the research used quantitative data and analysis by using statistic technique. The analysis used to find the effectiveness student's writing achievement before and after using Crossover Learning. Analysis data is a process by the result. The data of the research is about writing text of eight grade students of MTsN 01 Tulungagung before and after using Crossover Learning. To analyze the data, the researcher used Paired Sample Test in statistic. If the result of the table was bigger than t_{count} at the level of significance 0.05, the null hypothesis could not be rejected indicated that Crossover Learning strategy not effective on the student's writing achievement in narrative text. By the contrast, if t_{count} was bigger t_{table} at the level of significance 0.05, the null hypothesis so the thesis could be rejected and Crossover Learning strategy was effective on the students;' writing achievement in narrative text. This research are used the statistic and gets analyze of the results. The results said that Crossover Learning was effective on the students' writing achievement in narrative text.