CHAPTER III

RESEARCH METHOD

A. Research Design

This study was a quantitative research. It was categorized as a quasi experimental research design. In this research there were two variables that had correlation each other, the variables were Team Word Webbing as Independent variable and Students' writing skill as Dependent Variable. There were two groups basically involve in this research, those were experiment and control group. Both of group got the same topic, the same length of time and the same teacher, but different techniques. The experimental group was thought by using Team Word Webbing Technique and control group used conventional technique.

Based on the researcher view above, it could be concluded that the research design which was used to find out whether students who were though through Team Word Webbing had better writing skill in Narrative Text than those who were not. It would be conducted by *post-test and only control design group*. In this case the researcher did not take the students' pre-test, but doing post-test after giving some treatment before. So it can be concluded that the research design had two steps: those were some treatments and post-test. The treatment would be given to experimental group about five meetings, and the end of research meetings the researcher would give the students post-test.

Design of this research figured out by the Sugiyono's formula below (Sugiyono, 2012:114). The research design could be seen on the table below:

Table: 3.1 Research Design

Group	Independent variable	Dependent variable
E	X	O
C	-	O

E   = Experimental Group

C   = Control Group

O   = Post-test (writing test)

X   = Treatment (teaching through Team Word Webbing)

The researcher gave Team Word Webbing technique in teaching and learning for the experimental class and at the end of the research the researcher gave the post test into both of groups (Experiment and control). The test was written test. Every student wrote the Narrative Text about some topics that could they chose, with their own word and they had to include the generic structure of the narrative text.

B. **Population and Sample**

1. **Population**

The population of this research was all of the second grade students of Junior High School number 14 of Padang. Total numbers of second year students at 1Junior High School number of Padang were 259 consist of eight classes. The population of this research can be seen in the table below:

Table: 3.2

Total of Students Eight Grade of Junior High School 14 Padang

Academic Year 2017/2018

Class	Number of Students
VIII. 1	33
VIII. 2	32
VIII. 3	30
VIII. 4	32
VIII. 5	31
VIII. 6	32
VIII. 7	32
VIII. 8	34
TOTAL	**259**

2. **Sample**

Gay (1987:110) states that sample are the individuals selected to represent the large group population. The sample of the research used cluster random sampling. It is sampling in which group not individuals are randomly selected. All the numbers of select group had similar characteristics. Eight grade consist of eight class (VIII.1, VIII.2, VIII.3, VIII.4, VIII.5, VIII.6, VIII.7, and VIII.8)

To get the representative sample of this research the researcher did these steps:

a. Collect midterm score from all of students at eight grades.

b. Test of normality,

Normality test had an objective to know the population normal or not. The normality analyzed by using SPSS (*Statistical*

Product and Service Solution) with data exploration of
Kolmogorov-Smoirnov test and Shapiro Wilk. Based on that test
the data stated normal if every classes had significance or
probability score bigger than 0.05. It can be seen on the table:

Table: 3.3

		Kolmogorov-Smirnov[a]			Shapiro-Wilk		
	Class	Statistic	df	Sig.	Statistic	Df	Sig.
core	VIII 1	.073	33	.200[*]	.977	33	.693
	VIII 2	.149	32	.067	.943	32	.089
	VIII 3	.137	30	.158	.971	30	.554
	VIII 4	.129	32	.188	.952	32	.165
	VIII 5	.120	31	.200[*]	.953	31	.190
	VIII 6	.104	32	.200[*]	.975	32	.662
	VIII 7	.151	32	.061	.971	32	.539
	VIII 8	.146	34	.063	.945	34	.087
*. This is a lower bound of the true significance.							
a. Lilliefors Significance Correction							

From the table above, it can be seen that all classes (VIII.1,
VIII.2, VIII.3, VIII.4, VIII.5, VIII.6, VIII.7, and VIII.8) were
normal, and all score bigger than 0.05. To see whether the sample
normal or not in distribution, researcher also used normal graphic
of Q-Q plot, the data was normal if the distribution of data plot be
in the surrounding of aslant and athwart line.

c. Test Homogeneity

After doing the normality test and getting the normal data. Then the researcher did the homogeneous variation test. This test had an objective as to know the sample homogeny or not. This test used SPSS with Levene test, if the data are significant or the data are more than 0.05 it meant the data is homogeneous. See the table below:

Table: 3.4

Test of Homogeneity of Variance				
		Levene Statistic	df1	df2	Sig.
Score	Based on Mean	1.484	7	248	.174
	Based on Median	1.116	7	248	.354
	Based on Median and with adjusted df	1.116	7	233.044	.354
	Based on trimmed mean	1.504	7	248	.166

From the data above, we know that the researcher got the data that had no significant differences among all of those classes. The decision of column *test of homogeneity of variance* shown that p-value 0.001 is smaller than 0.05, so it could be concluded that all the class were homogeneity.

d. Determining Sample

After knowing and analyzing, the researcher concluded that the population was normal and homogeny. Thus, the researcher chose the experimental class and the control class by cluster random sampling. The researcher used this sampling technique because it is hard to regroup the existed group. The researcher chose class VIII.1 and VIII.2 as Experimental class and Control

class by using lotteries. Then, to determine which one is Experiment class and which one is Control class, the researcher used a flapping coin. As a result the researcher got class VIII.1 as the experimental group and class VIII.2 as the control group.

Table: 3.5

Sample of Research

No	Class	Number of Students
1.	VIII.1 (Experiment group)	33
2.	VIII.1 (Control Group)	32
	TOTAL	65

C. Place and Time of Research

This research was held at Junior High School number 14 Padang, the treatment was conducted at the second year students at second semester. This research was done six times meeting in each group started on gave treatment for the first meeting until the five meetings, and the last meetings the researcher gave Post test to each group. And to see whether the students who were taught through Team Word Webbing had better writing skill in Narrative Text than those who were not, the researcher compared post test result between experimental group and control group. The treatment was carry out based on the teaching schedule of Junior High School 14 Padang. The schedule of the research also can be seen as the table below:

No.	Day/Date	Class	Time	Activity
1.	Tuesday, March 28th 2017		08.45-09.30 09.30-10.15	Pre-Test
2.	Tuesday, April 04th 2017		08.45-09.30 09.30-10.15	Treatment
3.	Tuesday, April 11th 2017	VIII 1 (Experiment Class)	08.45-09.30 09.30-10.15	Treatment
4.	Tuesday, April 18th 2017		08.45-09.30 09.30-10.15	Treatment
5.	Tuesday, April 25th 2017		08.45-09.30 09.30-10.15	Treatment
6.	Tuesday, May 02nd 2017		08.45-09.30 09.30-10.15	Post-Test

No.	Day/Date	Class	Time	Activity
1.	Tuesday, March 28th 2017		08.45-09.30 09.30-10.15	Pre-Test
2.	Tuesday, April 04th 2017		08.45-09.30 09.30-10.15	Treatment
3.	Tuesday, April 11th 2017	VIII.2 (Control Class)	08.45-09.30 09.30-10.15	Treatment
4.	Tuesday, April 18th 2017		08.45-09.30 09.30-10.15	Treatment
5.	Tuesday, April 25th 2017		08.45-09.30 09.30-10.15	Treatment
6.	Tuesday, May 02nd 2017		08.45-09.30 09.30-10.15	Post-Test

D. Instrument of the Research

The instrument of this research is a tool or facility that is used by the researcher for collecting the data in order to get the better result. Therefore, to get the accurate data, the researcher chose written test as an instrument. To know whether students who were taught by Team Word Webbing had writing skill in Narrative than those who were not, the researcher gave written test to the students. The written test was an instruction to make a Narrative Text

based on the topic given by the teacher. Because it was a written test, the researcher used writing rubric in assess students' writing score. It was divided into five criteria, which are content, organization, language use, vocabulary and mechanic, the researcher identified their score based on the writing indicators by Jacob (1981:90).

A test must have content validity if it measures what is going to be measured. Arikunto (2001:62) says that one of the characteristics of test validity is content validity. It means the test is valid if it fixes with the material that has been given to the students and it is based on the Curriculum and syllabus. The researcher used the Curriculum or syllabus and teaching material to construct the test.

Table 3.6

Sample of Instrument in Giving Writing Scores

(Post-test writing rubric by Jacobs (1981)

No. of Students	Aspects					
	Content (30)	Organization (20)	Voc (20)	Grammar (25)	Mechanics (5)	Total (100)
1						
2						
↓						
34						

E. Procedures of Research

According to Gay (1987:189) there were three steps to do the research such as preparation, application, and finishing.

1. **Preparing**

   The researcher chose two classes to collect the data (Experimental class and Control Class). The experimental class is VIII.1 which consist of 33 students and the control group is VIII.2 which consist of 32. In Experimental class the researcher used Team Word Webbing technique to teach students in English subject, especially in writing skill and conventional technique when teaching in control group. The material of the teaching was writing and correcting the text about Narrative text. In short, the researcher had proposed this procedure.

   a. Setting a schedule of research

   b. Determining population and sample

   c. Prepared the lessons plan arranged by curriculum and syllabus for five meetings.

   d. Prepared the final test.

2. **Learning Process**

   The first meeting of the research, for both of group researcher explained to the students about the aim the researcher came to their class first, then the researcher gave them the treatment by using Team Word Webbing technique in teaching writing for experimental group and conventional technique for control group. This treatment gave in five meetings to both of class. In the end meeting of the research, the researcher gave experimental and control group post-test to know whether students who were taught through Team Word Webbing have better writing skill in

Narrative Text than those who were not. The post-test became the data that researcher used in describing the improvement of students' writing skill after giving the treatment. The following table indicates the scenario of learning for experimental and control group.

Table. 3.7

Teaching Procedure for Experimental and Control Group

NO	Experimental Group	Control Group
	Pre-Activity (10 Minutes) 1. Greeting. 2. Checking students' attendance list. 3. Teacher introduces learning objective to student 4. Students listen teacher's explanation 5. Teacher writes a topic of the lesson on them whiteboard.	**Pre-Activity (5 Minutes)** 1. Greeting. 2. Checking students' attendance list. 3. Teacher introduces learning objective to students and 4. Students listen teacher's explanation 5. Teacher writes a topic of the lesson on the whiteboard.
	Whilst- teaching Activity **Exploration** **Building Knowledge of the Field (BKOF)(10 minutes)** a) The teacher introduces the topic based on the syllabus through picture b) The teacher gives some questions based on the topic to build students' background knowledge and arguments. c) Students guess the topic based the picture d) Students who can guess will get point from the teacher	**Whilst-teaching Activity** **Exploration (25 Minutes)** a) The teacher introduces the topic based on the syllabus through picture b) The teacher gives some questions based on the topic to build students' background knowledge and arguments. c) Students guess the topic based the picture d) Students who can guess will get point from the teacher **Elaboration (25 minutes)**

	Elaboration
	Modeling of Text (MOT)
	(10 Minutes)
	
	1. Teacher explain the material about:
	  a) Generic structure of the text
	  b) The purpose of the text
	  c) Language features of the text
	  d) Teacher also explain about each step of Technique
	2. Students listen teacher's explanation and ask what they do not know about the text
	3. Students observe element of text
	
	Join Construction of the text (JCOT) (15 minutes)
	
	a) Students are asked to make groups
	b) Students in Every group prepared piece of paper and some color pens
	c) Teacher Guide every group to discuss about one topic
	d) Students discuss about one topic in their own group
	e) One member of group write the topic first in the piece of paper
	f) Other students Add Supporting idea by other members (The process is continue by the others members to write other additional information start from orientation, complication and
		In elaboration activity :
		a) Teacher explain about Narrative Text (generic structure, purpose and language feature of the text)
		b) Students listen about teacher's explanation
		c) Teacher asks students to read some samples of Narrative text on the book and observe the element of the text
		d) Students read the example of narrative text and observe element of the text
		e) Students make their own narrative text based on the example
		f) Teacher checks students writing
		
		Confirmation (15 Minutes)
		
		a) Student write/read their essay in front of the class
		b) Teacher gives them correction for their writing product

	resolution about the story and using different color pen) g) Teacher walks and Leads students to Develop Topic Sentence h) Teacher checks the product of Team Word Webbing every group **Independent Construction of Text (ICOT)** **(15 Minutes)** a) Let the students make their own text independently in their exercise book b) Teacher guides how to make text in true context **Confirmation (10 Minutes)** a) Every students are asked to change their product with their peer b) Students revise their product based on peer correction c) Students display their final product on the madding's class	
	Post- Activity (10 Minutes) 1. Teacher and the students conclude the materials. 2. Students are given any reflection 3. Teacher informs the next material 4. Teacher and students close the class and pray	**Post- Activity (10 Minutes)** 1. Teacher and the students conclude the materials. 2. Students are given any reflection 3. Teacher informs the next material 4. Teacher and student close the class and pray

3. Finishing

After doing the learning process, so the next step was the final test or post test. The test is a written test. The students had been given explanation about the components of writing that is measured. They are content, organization, vocabulary, language use, and mechanics. The students wrote Narrative Text about fairy or legend that has been learnt before in the class. In short:

a. Giving test to experimental and control class in the last meeting

b. Processing data towards experimental and control class

c. Taking conclusion from technique of data collection

F. Technique of Data Collection

1. Test

The data was collected by giving written test. Data of this research was the students' scores of post-test. Writing test was given to both of control and experimental group for 45 minutes. Furthermore, the researcher gave experimental group and control group for five times by using different treatment. Finally, to identify whether the students' writing skill in Narrative Text was better, the researcher gave post-test for both groups.

2. Scoring

Researcher gave the score for students (content, organization, vocabulary, language use and mechanics) based on Jacob's assessment (1996: 111-112).

G. Technique of Data Analysis

After collecting the data by using written test, the researcher analyzed the result of the test by using T-test. T-test means a statistical procedure used to determine whether there is any significant different between the means of the two sets of scores. The purpose is to see difference of writing ability between experimental and control class. In analyzing data, the researcher use t- test formula as follows:

1. This formula applied to decide mean of students' test score in experimental and control classes;

$$\overline{X_1} = \frac{\sum F_1 X_1}{\sum F_1} \text{ (Experimental class)}$$

$$\overline{X_2} = \frac{\sum F_2 X_2}{\sum F_2} \text{ (Control class)}$$

2. This formula is used to decide standard deviation of experimental and control classes;

$$S^2 = \frac{n \sum fixi^2 - (fixi)^2}{n(n-1)}$$

Furthermore, the data analyze by using t-test formula as suggest by Sudjana (2002: 239). And the formula of t-test is:

$$t = \frac{\overline{X_1} - \overline{X_2}}{s\sqrt{\frac{1}{n_1} + \frac{1}{n_2}}}$$

$$S^2 = \frac{(n_1 - 1)S_1^2 + (n_2 - 1)S_2^2}{n_1 + n_2 - 2}$$

Where:

t : The value of t calculated / observer / obtained

$\overline{X_1}$: Mean score of experiment sample

$\overline{X_2}$: Mean score of control sample

n_1 : The number of subject of experimental class

n_2 : The number of subject of control class

$S_1{}^2$: Variance of experimental class

$S_2{}^2$: Variance of control class

The T-table uses to see whether there was any significant effect between the mean score of post-test experiment class and control class. The value of T-calculated was consulted with the value of T-table. The data was analyzed by using simple regression for hypothesis with 5 % (=0, 05) of significance level and the value of T-table of the degree of freedom (N1-1). If the value of Tcalculated was bigger than the value of T-table, the hypothesis was accepted. On the contrary, if the value of the T-calculated was smaller than the value T-table, the hypothesis was not accepted.