CHAPTER III
RESEARCH METHOD

A. Research Design

This research was conducting by using experimental research. Gay (2012:250) states that experimental research is the only type of research that can test hypotheses to establish cause – effect relations. It represents the most valid approach to the solution or educational problems, both practical and theoretical, and to the advancement of education as a science. He also states that an experimental typically there is two groups; an experimental group and a control group.

This experimental research did the limitation of the time. The students treated differen After finishing the treatment, the er gave post-test to the students fo ntify whether the using Paired S elling technique in learning process ing give a significant their speaking skill at the last meeting.

In this research, the rese used *the randomized posttest only control group design.* Muri (2014: 191). The design of this research can be represented as:

E X ——————— O1

R

K - ——————— O2

Where:
E = Experimental class
K = Control class
X= Treatment through Paired Storytelling technique
O1= Post-test for experimental class
O2= Post-test for control class

This design, basically involves two classes where the researcher randomly chose. One class was the experimental class that received a treatment (X) or Paired Storytelling technique in teaching speaking process, while another class was a control class that received no treatment. The effect of giving treatment was post-test result (O1:O2). In this research, the effect of Paired Storytelling technique is being statistically analyzed with t-t.

B. Population and Sample

1. Population

Gay (2012:130) says that population is a group which the researcher would like the results of the study to be generalizable and sampling is the processes of selecting a number of individuals for a study in such a way that the individuals represent the larger group from which they are selected. In this research, the population is class IX students of State Islamic Junior High School 4 Pesisir Selatan. They are distributed into five classes. The total number of the students was 106 students and each class consists of 20 until 25 of students.

They will be chosen as the population based on the assumption that they had the same basic knowledge in speaking, and they are distributed in a same average score, there was no the superior class. They also will be taught with the same teacher, material and syllabus, but different treatment.

Table 3.1 The Population of Class IX State Islamic Junior High School 4 Pesisir Selatan 2017-2018

No	Class	Total Students
1.	IX. A	23
2.	IX. B	20
3.	IX. C	23
4.	IX. D	20
5.	IX. E	20
	Total	**106**

2. Sample

The sa[illegible] is taken by cluster sampling. C[illegible]2012:135) says that cluster rand[illegible]mpling is sampling intact gr[illegible]ot individuals, are randomly selected[illegible]researcher used th[illegible]pling technique because it is hard to regroup the exis[illegible] samples of this study were IX B as the experimental class and IX D as the control class, the selected samples are assumed homogenous since the students are classified based on a same average knowledge and score by the school. Then, number of all sample are 43 students; 20 students are in the experimental class and 20 students are in the control class. Dealing with the sample size of experimental research, 20 students are representative enough to be the sample of this research.

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

a. Collect score mid semester as data from all students at five classes.

b. Test of normality

Normality test has an objective to know the population normal or not. Based on analyzed by SPSS program all of the groups of population the result of P-value higher than 0.05, it means that the data is normal. It can be seen on table below:

Table 3. 2 Tests of Normality

	VAR00002	Kolmogorov-Smirnov[a]			Shapiro-Wilk		
		Statistic	Df	Sig.	Statistic	df	Sig.
VAR00001	1	.163	23	.115	.937	23	.153
	2	.145	20	.200*	.949	20	.349
	3	.097	23	.200*	.942	23	.194
	4	.115	20	.200*	.962	20	.578
	5	.125	20	.200*	.959	20	.523

*. This is a lower bound of the true significance.

a. Lillie for Significance Correction

c. Test of Homogeneous Variances

After doing normality test, then researcher analyzed the homogeneous variation test. This test has an objective as to know the sample homogeny or not. It can be seen on the table below:

Table 3. 3 Test of Homogeneity of Variance

		Levene Statistic	df1	df2	Sig.
VAR00001	Based on Mean	1.340	4	101	.260
	Based on Median	1.172	4	101	.328
	Based on Median and with adjusted df	1.172	4	94.502	.328
	Based on trimmed mean	1.340	4	101	.260

d. After getting the classes, sample of this research consisted of two groups: an experimental class and control class. Based on five classes above, the researcher chose two classes as the sample.

Table 3.4 Samples of the Research

No	Class	Number of the students
1.	IX (Experimental Class)	20
2.	IX (Control Class)	20
	Total	40

C. Place and Time of Research

This research did at State Islamic Junior High School Number 4 Pesisir Selatan. It conducted from October until November 2017. This place is chosen because the researcher interested to do the research in this school and the students in this school also learned speaking skill as a part of their English curriculum.

D. Research Variable

According to Wallen in Muri (2014:103), variable is a concept a noun that stands for variation within a class of objects. There were two variables in this research:

1. Independent Variable

Independent variable is variable which is influencing or becoming it is change cause or incidence dependent variable.

a. Conceptual definition

Paired Storytelling technique is an activity to stimulated students to develop their thinking and imagination. Their thought will be appreciated and makes students encourage in learning (Lie, 20010

b. Opera[illegible] definition

Paire[illegible]lling is a techni[illegible]s given to the students during the learning p[illegible]mental class in five meeting.

2. Dependent Variable

Dependent variable is variable which is influenced or becoming effects caused by independent variable. Dependent variable in this research is students' achievement of speaking skill at class IX State Islamic Junior High School 4 Pesisir Selatan.

a. Conceptual definition

Students' achievement is an ability owned by the students in both experiment and control class after they accepted the learning experiences.

b. Operational definition

Students' achievement in this research is students' score after the speaking test is conducted by the researcher at the end of meeting in experiment class. Students' achievement in this research will be students' score from speaking test.

E. Instrument of the Research

Instrument is a tool to collect data from the sample. The instrument of this research used performance test. According to Brown (2010:3) a test is a method of measuring a person's ability, knowledge, or performance in given domain. Performance test is used to collect the data. This test conducts to know whether there is significant effect of the students' speaking skill by using Paired S[illegible]elling technique in narrative te[illegible] class IX of State Islamic Junior[illegible] School 4 Pesisir Selatan. In[illegible]er to get students' speaking scores, [illegible]ficiency scorin[illegible]ategorized by Hughes (2003:131-133) criteria 1-6 [illegible]such as pronunciation, grammar, vocabulary, fluency, and comprehension.

Table 3.5 Sample of Instrument in Giving Speaking Scores:

Criteria	1	2	3	4	5	6
Pronunciation	0	1	2	3	4	**5**
Grammar	6	12	18	24	30	**36**
Vocabulary	4	8	12	16	20	**24**
Fluency	2	4	6	8	10	**12**
Comprehension	4	8	12	15	19	**23**
Total Score						**100**

Based on the table above, the score that will be given is from one points until five point based on the competence that had by students. The researcher used indicator of speaking skill that stated by Hughes. It was helpful to assess students speaking skill because it measures how better students in speaking English.

Table 3.6 Sample of Instrument in Giving Speaking Scores

No. Students	Aspect					
	P (5)	G (36)	V (24)	F (12)	C (25)	Total (100)
1						
2						
3						
↓						
20						

Table 3.7 Blueprint of Speaking Test

Types of Test	Component Speaking	Indicator	Topics	Item
Oral Test	Pronunciation	➢ Students are able to identify the topic, the main character of the story, and the story happen	Narrative text ➢ The legend of Malin Kundang  ➢ The legend of lake Maninjau  ➢ The legend Garlic and Onion	1
	Grammar			
	Vocabulary			1
	Fluency			

	Comprehension	on.	 ➢ The legend of Lebay Malang 	1 11
Total				5

F. Procedure of Doing Research

There are three steps did the research such as preparation, application, and evaluation.

1. Preparation

In this study, the researcher chose two classes to collect the data, the researcher taught the students using Paired Storytelling technique for experimental class, and taught a conventional technique for control class. However, the material of the teaching was the same speaking material about narrative text. In short, the researcher prepares the steps such as:

a. Determining the research time.

b. Determining population and sample of the research.

c. Preparing the lessons plan arranged by curriculum.

d. Explaining to the students about the planning in learning process.

e. Preparing the post-test.

2. Application

The procedures of teaching speaking in the class room can be seen as follows:

Table 3.8 Treatment Procedure for Experimental and Control Group

Experimental Class	Control Class
A. PRE ACTIVITIES 1. Greeting. 2. The teacher checks students' attendant. 3. Remind the last material. 4. Builds the students' background knowledge. 5. Telling the purpose of the learning. 6. Giving motivation.	A. **PRE ACTIVITIES** **Orientation:** 1. Greeting. 2. The teacher checks students' attendant. **Apperception:** 3. Remind the last material. 4. builds the students' background knowledge 5. Telling the purpose of the learning. **Motivation:** 6. Giving motivation. **Present rence**
B. MAIN A ITY **Observing** 1. The teacher shows a of Paired Storytelling video to the students. **Questioning** 2. The teacher invites the students to ask some question related to the video. **Exploring** 3. **The teacher divides the story into two parts.** 4. **The teacher helps the students brainstorm the topic.** **Assosiating**	**B. MAIN TIVITY** **Obs** 1. S and without tool) video or picture bserving 3. Reading 4. Listening **Questioning** 1. The teacher gives some questions to the students. 2. The students answer the teacher's question. **Exploring** 1. Observing the object/event 2. Interview with resource person 3. Collecting the information 4. Read the other source **Assosiating** 1. Discussing

5. **The teacher divides the students into pairs.** 6. **The teacher gives first part of the story to first students and second part to second student.** 7. **The teacher asks the students to read.** 8. **The teacher asks the students to make a list the keywords/phrases from their story.** 9. **The teacher asks students to change their list with their partner and combine their idea.** **<u>Communicating</u>** 10. The teacher chooses a pair to stand in front of the class and telling the story that they have discussed. 11. The teacher asks the other students pay attention to performance of their classmate. 12. The teacher gives feedback and comment about presentation and teacher also asks other students give a comment. 13. The teacher continues with the next pair.	**Verification** **<u>Communicating</u>** 1. The students discuss to conclude the analysis in oral, written, or other media to develop the honest, careful, tolerance, systematic and respectful.
C. POST ACTIVITIES 1. The teacher and the students conclude the lesson. 2. The teacher gives advice to the students. 3. The teacher closes the class.	**C. POST ACTIVITIES** **Students** 1. Make summary 2. Agenda to homework 3. Agenda to project **Teacher:** 1. Check the students assignment 2. Giving appreciation

3.Evaluation

After doing the learning process, so the next step was the post-test. The test is given to group as a sample. The test is an oral test. The students had been given explanation about the components of speaking that are measured. They are grammar, vocabulary, pronunciation, fluency and comprehension. Each of components had 5 point as the highest mark. The score range between 0-5 that was multiplied 4. The students answered some question about their personality and narrative text.

G. Technique of Data Collection

In this technique, the researcher gave test telling story to the students after doing treatment to find out students' speaking skill in narrative text. This test was o[illegible]rocedures of doing test a[illegible]:

1. The teacher p[illegible]ictures c[illegible]le.
2. The teacher asks the s[illegible]o choose one picture.
3. The teacher asks the students to tell the story based on the picture by answering the question about their personality and narrative text in front of the class with their own words, which is conveyed about five minutes.
4. The researcher evaluated students' responses and then gave the score for students (accent, grammar, vocabulary, fluency and comprehension) based on Hughes scoring (2003: 131-133).

H. Technique of Data Analysis

Students' speaking products analyzed by using ESL Composition Profile which consists of five components such as pronunciation, grammar, vocabulary, fluency and comprehension. Moreover, the data described quantitatively. The score of students' speaking skill are analysis as follows:

1. Descriptive Analysis

The researcher did normality and homogeneity test firstly before using t-test. Statistically procedure gave a way to analyze the differences between the groups by using t-test technique. T-test means a statistical procedure used determine whether there is significant difference between the means two sets of scores. The purpose to see difference of speaking s between experiment and control cl

a. Normality t

This test used the distribution of each variable is normal or not. Testing normality done by applying kolmogorof-smirnov and shapiro-wilk test by using computer program called SPSS (statistical product and service solution) version 20. The criteria of normality test are significance if the score analysis is biggest than standard significant 5 % (0,05). If the score analysis is biggest than standard significant, the data distribution is normal.

b. Homogeneity Testing

This test used to see whether the sample which sample from population had the same characteristic as population or not. The

formula which was used in this test is levene statistic by using SPSS (statistical product and service solution).

Technique that will be used to analyze the data was statistical procedures by using a set of test. It is used to see the different quality of the students speaking with and without implementing Paired-Storytelling technique. Furthermore, the data was analyzed by using T-test formulas as suggested by Sudjana (2005: 239). T-test formulas develop which was presented as follow: in analyzing the students' test score, some step were done before analyzing the different mean by using T-test formula as follows;

a. This formula will be applied to decide mean of students' test score in experimental class and control class.

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

$$X_2 = \frac{\sum F_2 X_2}{\sum F_2}$$ (control class)

b. This formula will be used to decide standard deviation of experimental class;

$$S^2 = \frac{n_1 \sum F_1 - X_1^2 - \left(\sum F_1 X_1\right)^2}{n_1 (n_1 - 1)}$$

c. This formula will be used to decide standard deviation of control class;

$$S^2 = \frac{n_2 \sum F_2 - X_2^2 - \left(\sum F_2 X_2\right)^2}{n_2 (n_2 - 1)}$$

The formula of T-test is as follows (Sudjana:1996)

$$t = \frac{\bar{X}_1 - \bar{X}_2}{s\sqrt{\frac{1}{n_1} + \frac{1}{n_2}}} \qquad S = \sqrt{\frac{(n_1-1)S_1^2 + (n_2-1)S_2^2}{n_1 + n_2 - 2}}$$

Where

t = The value of t calculated (observer) obtained

$\bar{X}_1$ = Mean score of experimental class sample

$\bar{X}_2$ = Mean score of control class sample

n_1 = The number of subject of experimental class

n_2 = The number of subject of control class

S_1 = Standard deviation of experimental class

S_2 = Standard deviation of control class

2. Hypothesis testing

The t-table was to see whether there is significant effect of the students' speaking skill by using Paired Storytelling technique. The value of t-obtained was consult with the value of t-table at the degree of freedom (n1+ n2-1) or (n1+ n2 -2) at the level of confidence of 95%= 0, 05.

If the value of t-calculate is less than the value of t-table, the null hypotheses there is no significant effect of the students' achievement in speaking skill by using Paired-Storytelling technique is accepted. On the contrary, if the value of t-calculate is equal or bigger than the value of t table, the null hypotheses is rejected.