

CHAPTER III

RESEARCH METHODOLOGY

A. Research Design

This research is experimental research that uses pre-experimental methods. Pre-experiment was research used to determine certain influences treatment. Pre-experimental design is a form of experiment in which only one group is observed or tested. In this design, no comparison group or control group is included.(Gay 2012,265). This research used a one-group pretest-posttest design to determine the effect of a particular treatment. This design used one class that receives experimental class treatment by Pairwork technique.

In this study,a pre test was given before implying the pairwork technique, to measure the students' competency before being given treatment. (01) Then the treatment was given four times by teaching the pairwork technique to improve students' speaking skill, and the post test was given after learning using the pairwork technique,to measure the extent of student progress after applied the pairwork technique. (02). The effectiveness of the treatment is established after compared the pre-test and the post test results.

Table 3. 1 One Group Pre Test Post Test

Steps	Procedure	Aim
Step 1	Pre test (interview with the help of pictures)	To check the dependent variable's level before getting treatment
Step 2	Treatment	As a way to affect the dependent variable
Step 3	Post test (interview with the help of pictures)	To check the dependent variable's level after getting treatment

In this design, the pre-test consists of questions to determine students' speaking skill before treatment. The post-test is a final evaluation to assess whether there has been any improvement or change in students' speaking after treatment. The research design can be represented as follows:

Table 3. 2 Pre-Experimental Design schema

O1	X	O2
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Explanation:

O1 : Pre-test

X : Treatment

O2 : Post-test (Gay. 2012,265)

B. Research Setting

The researcher conducted the research at MTsS Modern Arafah Sungai Penuh. The researcher conducted this research from June to July 2025. The researcher had the experiment using pairwork technique in teaching speaking skill, in addition the teaching process were held for six meetings.

Table 3. 3 Research Schedule

No.	Day/Date	Class	Time	Activity
	Friday 27/june/2025	VIII ^a	10.00 - 11.00	Pre-test
	Saturday 28/june/2025	VIII ^a	10.00 - 11.00	Treatment
	Friday 04/july/2025	VIII ^a	10.00 - 11.00	Treatment
	Saturday 05/july/2025	VIII ^a	10.00 - 11.00	Treatment
	Thursday 9/july/2025	VIII ^a	10.00 - 11.00	Treatment
	Friday 10/july/2025	VIII ^a	10.00 - 11.00	Post-test

C. Population And Sample of Study

a. Population

All persons or items with specific characteristics that are the subject of the study are referred to as the population. Individuals, groups, or other items that fit the study's goals can make up the population. according to Sugiyono, 2017: 80, “the population is called the whole field because it includes the elements or subjects that the researcher has chosen to analyze and draw conclusions based on certain traits and characteristics.”

The population in this research is class VIII students at MtsS Modern Arafah. Class VIII students at MtsS Modern Arafah have 2 classes,

So the population of this research are class VIII^a and VIII^b. Total 66 students who were divided into two classes, as follows:

Table 3. 4 The number of students class VIII students of MtsS Modern Arafah

No	Classes	The number of students
1.	VIII ^a	36
2.	VIII ^b	30
Total		66 students

In conclusion, the population of this research is class VIII MtsS Modern Arafah. total 66 students who one divided into two classes.

b. Sample and Sampling Technique

A portion of the population that was used as a data source and could be representative of the total population is called a research sample. sample is a subset of individuals, items, or events that reflects the characteristics of a larger group from which it is drawn (Gay, 2012, p. 129) To guarantee that the sample collects is representative, sampling technique must be applied.

This research used a cluster random sampling method by randomizing the classes and selecting two classes. cluster random sampling is sampling in which groups, not individuals, are randomly selected who have similar characteristics and in which subjects can be found.

The researcher used a lottery to select a class for the study sample. The researcher writes the class name on many small pieces of paper based

on the number of classes, placed all the lots in a box, shook it, and then take the lottery and researcher got class VIII^a as the selected, totaling 36 students.

D. Research variable

In this research there are two kinds of variables, as follow :

1. Independent variable is using pairwork technique in teaching speaking.
2. Dependent variable is student speaking skill of class VIII^a MTsS Modern Arafah Sungai Penuh.

E. Research Instrument and validity

1. Instrument

Research instruments are very important in the research process because they help researchers to collect information from participants, subjects or the environment being studied. The type of research instrument chosen depends on the research question, objectives and the nature of the data to be collected.

An oral exam is the instrument used in this study, and the candidate and examiner usually interact by the candidate speaking as they would to a superior (Huges, 2003). This study uses images to conduct interviews. There are two components to the interview test. 20 exam questions overall, divided into two sections: the pre-test and the post-test.

2. Validity

In this study, the researcher used content validity. The extent to which a test assesses the desired content area is known as content validity. The researcher asked the validators to conduct the validity test for this study.

F. Technique Of Data Collection

1. Pre-Test

Before undergoing treatment, students were given an pre-test to determine their basic knowledge in speaking skill using an oral test with the help of pictures.

2. Treatment

After conducted the pre-test, the researcher carried out treatment by using the pairwork technique. The treatment was carried out for 4 meetings, the procedure for its Effect was as follows:

a. Before Teaching

- 1) Teacher giving instruction or demonstration about the material for the students.
- 2) The students divided into pairs following engaged-instruct-initiate sequence.

b. During Teaching

- 1) Teacher should pay attention and keep an eye on what is happening during activity.

2) Teacher as around watched, listening and helping students when they were in trouble.

c. After Activity

The teacher gave constructive feedback and correction after student's performance.

3. Post-test

After the treatment, the post-test was conducted to find out the students' achievement in speaking ability. It is used to check the result of the treatments; it is useful to know the effects of the pairwork technique on students' speaking.

G. Procedure of Experiment

This research used experimental research; it mean only used one class. Students were given a pre-test at the first meeting, treatment at four meetings, and a post-test at the last meeting. Researchers used these steps to achieve research objectives.

The first meeting was held on June 28, 2025. The purpose of this activity was to identify the meaning, function, and purpose of asking and giving opinions. To open the class, the teacher opened the class by greeting and checking student attendance one by one. After that, to stimulate student knowledge, the teacher used a short video about a conversation related to asking and giving opinions. After that, the teacher explained the meaning, function, and purpose of asking and giving opinions. Therefore, the teacher used a pairwork technique.

The second meeting was held on June 27, 2025. The purpose of this activity was to identify expressions of asking for and giving opinions. To open the class, the teacher opened the class by greeting and checking the students' attendance one by one. After that, the teacher showed a picture. The teacher asked students' opinions about the situation in the picture. After that, the teacher explained the expressions of asking for and giving opinions. Therefore, the teacher used a pairwork technique for learning in the second meeting.

In the third meeting, the teacher showed a video about giving and asking for opinions in conversational form to identify the expressions used in the video. Afterward, the teacher used pairwork techniques to help students create a conversation with their partners using each expression used in the video.

And at the last meeting, the teacher divided the students into pairs (using pairwork techniques) and the teacher asked the students to make a conversation asking and giving opinions based on their ideas.

H. Technique Of Data Analysis

The research data was analyzed using SPSS version 20. The researcher checked the results of the pre-test and post-test.

1. Descriptive Analysis

1) Normality Test

The researcher administered a normality test on the previously obtained speaking test scores to ensure that the fundamental assumptions required for subsequent statistical analysis were satisfied. The objective of this test was to ascertain

whether the distribution of scores from the pre-test and post-test conformed to a normal distribution. As established by Shapiro and Wilk (1965), the originators of this technique, the Shapiro-Wilk test is particularly robust and reliable for sample sizes ranging from 3 to 50. In contemporary research practice, this test is commonly executed via statistical software, which calculates a p-value to guide interpretation. According to Ghasemi and Zahediasl (2012), the p-value serves as the primary criterion for determining data normality; if the p-value exceeds 0.05, assuming a 5% significance level, the null hypothesis of normality is retained. The present study involved a sample of 35 students. Within statistical inference, the concept of significance denotes the likelihood that the observed effect is not due to random chance, thus indicating the potential influence of the treatment or intervention on the dependent variable.

2) Homogeneity Test

The homogeneity test is employed to assess whether the variances across the two data groups are statistically equivalent. This evaluation is crucial for validating the assumption of equal variance, which underpins various parametric analyses. The test is commonly conducted using Levene's test, facilitated through SPSS version 20, to derive a significance value indicative of variance consistency. If the resulting significance level exceeds

the 0.05 threshold, the data are considered to exhibit homogenous variance, thus satisfying one of the critical assumptions for further statistical testing

3) Hypothesis test

Hypothesis testing constitutes a fundamental statistical procedure employed to evaluate whether a given data sample provides sufficient empirical evidence to infer conclusions about a broader population. In this study, the researcher formulated a directional hypothesis positing that students instructed through the pair-work technique would exhibit superior speaking proficiency compared to those who were not exposed to the method. Subsequently, empirical data were collected and analyzed to substantiate or refute this claim.

To examine the proposed hypothesis, the researcher employed a t-test, a statistical tool designed to evaluate whether the observed differences between groups are statistically significant. Specifically, a paired sample t-test was utilized, appropriate for assessing mean differences between two related or matched samples—in this case, pre- and post-intervention performance of the same participants. This test was conducted using SPSS version 20, with interpretation guided by established significance criteria to determine the presence or absence of a

statistically meaningful effect attributable to the application of the pairwork technique, with following criteria:

In cases where the t-test yields a positive value, the decision criteria are as follows: If the p-value exceeds the predetermined level of significance ($\alpha = 0.05$), the alternative hypothesis (H_1) is accepted, indicating a statistically significant effect in the hypothesized direction.

Conversely, if the p-value (Sig. 2-tailed) is less than the 0.05 threshold, the null hypothesis (H_0) is retained, suggesting that the observed difference is not statistically significant.

In instances where the t-test produces a negative value, the interpretation is reversed:

If the p-value (Sig. 2-tailed) is less than the significance level ($\alpha = 0.05$), this supports the acceptance of the alternative hypothesis (H_1), implying a significant difference in the opposite direction.

If the p-value exceeds 0.05, the null hypothesis (H_0) is retained, indicating no statistically significant difference between the paired samples.

Table 3. 5 Table Of Speaking Assessment's Rubric by Huges

Scoring of Speaking Test	Indicators
Accent	1. Pronunciation frequently unintelligible.. 2. Frequent gross errors and a very heavy accent make understanding difficult, require frequent repetition. 3. "Foreign accent" requires concentrated listening, and mispronunciations lead to occasional misunderstanding and apparent errors in grammar or vocabulary 4. Marked "foreign accent and occasional mispronunciations which do not interfere with understanding. 5. No conspicuous mispronunciations, but would not be taken for a native speaker. 6. Native pronunciation, with no trace of "foreign accent."
Grammar	1. Grammar almost entirely inaccurate except in stock phrases. 2. Constant errors showing control of very few major patterns and frequently preventing communication. 3. Frequent errors showing some major patterns uncontrolled and causing occasional irritation and misunderstanding. 4. Occasional errors showing imperfect control of some patterns but no weakness that causes misunderstanding. 5. Few errors, with no patterns of failure. 6. No more than two errors during the interview
Vocabulary	1. Vocabulary inadequate for even the simplest conversation. 2. Vocabulary limited to basic personal and survival areas (time, food, transportation, family, etc.).

	- Choice of words sometimes inaccurate, limitations of vocabulary prevent discussion of some common professional and social topics. - Professional vocabulary adequate to discuss special interests; general vocabulary permits discussion of any non-technical subject with some circumlocutions. - Vocabulary inadequate for even the simplest conversation. - Vocabulary limited to basic personal and survival areas (time, food, transportation, family, etc.).
Fluency	- Speech is so halting and fragmentary that conversation is virtually impossible. - Speech is very slow and uneven except for short or routine sentences. - Speech is frequently hesitant and jerky; sentences may be left uncompleted. - Speech is occasionally hesitant, with some unevenness caused by rephrasing and groping for words.. - Speech is effortless and smooth, but perceptively non-native in speed and evenness. - Speech on all professional and general topics as effortless and smooth as a native speaker's.
Comprehension	- Understands too little for the simplest type of conversation. - Understands only slow, very simple speech on common social and touristic topics; requires constant repetition and rephrasing. - Understands careful, somewhat simplified speech when engaged in a dialogue, but may require considerable repetition and rephrasing. - Understands quite well normal educated speech when engaged in a dialogue, but requires occasional repetition or rephrasing.

5. Understands everything in normal educated conversation except for very colloquial or low-frequency items, or exceptionally rapid or slurred speech.

Understands everything in both formal and colloquial speech to be expected of an educated native speaker.

After students perform their based on the speaking assessment's rubric above, their scores can be categorized into predicates as follows :

TABLE : THE SCORING

Aspect	Weight Table						Total
	1	2	3	4	5	6	
Accent	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	16	20	24	