

CHAPTER III

RESEARCH METHODOLOGY

3.1 Research Method

This study adopted quasi-experimental method. Hatch & Farhady (1982:24) state that quasi experimental is practical compromises between true experimentation and the nature of human language behavior which we wish to investigate. Such designs are susceptible to some of the questions of internal and external validity.

There were two groups taken as the investigated groups in this study. One group was for the experiment that would receive three-step interview technique as its treatment, while another group was for the control group that would receive no treatment. The control group would run the teaching-learning process with their teacher as they usually do daily. On the other words, this group used conventional method of teaching.

After conducting the pre-test, treatment, and post-test, then the data would be interpreted.

3.2 Respondents of the Study

In this study, the respondents were the students of SMAN 4 Bandung. It was chosen due to the researcher's senior high school. The

researcher expected an easier access to conduct a research by choosing the have-ever-attended school.

This study used two classes as the respondents. The first class was the experimental group and the other was the control group. The samples to be investigated were the whole students of both experimental and control group class.

3.3 Research Design

Based on the quasi-experimental design (pre and post-test design), the research design of the study could be illustrated below.

Table 3.1 The Research Design

Sample	Pretest	Treatment	Posttest
Experimental Group	X_{1E}	√	X_{2E}
Control Group	X_{1C}	×	X_{2C}

Notes:

X_{1E} : Student's speaking ability of experimental group in pre-test

X_{1C} : Student's speaking ability of control group in pre-test

X_{2E} : Student's speaking ability of experimental group in post-test

X_{2C} : Student's speaking ability of control group in post-test

3.4 Research Instruments

The researcher used instruments of the research by conducting speaking test, giving questioner, and interviewing the students involved. The three instruments are described as follow.

a. Speaking Test

In this study, speaking test served as the research instrument. It was used to reveal the cooperative learning of the three-step interview in teaching English towards the student's speaking ability of the experimental group students. The speaking tests were held twice, in the pretest and posttest.

Each student of both groups was asked to describe what the researcher asked. The researcher's command or question was related to daily lives. The students had to describe it in English. By this students' speaking activity, the researcher could asses how their speaking skills were. There were four aspects of the assessment in testing speaking i.e. pronunciation, vocabulary, fluency, and procedural generic structure (grammar) covering present tense, imperative sentence, cause and effect, and sequencing. The test was conducted to the both experimental and control groups.

In this study, the criteria of speaking scoring system proposed by Sapani (1990) was used to asses the result of the student's score. The criteria are as follow.

1. Pronunciation

5= phonemically accurate, clear pronunciation, thorough, and correct.

4= occasional phonemic errors, but generally comprehensible and nearly perfect.

3= there exists several errors, very difficult to perceive meaning.

2= many phonemic errors and many mispronounced, incorrect, and imperfect words.

1= incomprehensible and many mispronounced, incorrect, and imperfect words.

2. Vocabulary

5= words are selected and have variations, they are relevant with the situations, condition, and listeners' status so that the meaning makes sense.

4= words are generally relevant with the situation and have enough variations, but there sometimes appear inappropriate words which do not change the meaning of the sentence.

3= words have already been relevant with the topics and situation. However, they do not have any variation yet.

2= there are still lot of words used inappropriately.

1= poor and irrelevant words, they do not fit the sentence meaning related to either the topic or situation given.

3. Grammar

5= no errors of morphology or syntax.

4= generally accurate structure, occasional slight errors.

3= there only some errors of structure, but do not change the whole meaning.

2= there are little bit errors of basic structure but some phrases rendered correctly.

1= virtually no correct structure or no response.

4. Fluency

5= the speaker speaks naturally and continuously. Any pauses correspond to those that might be made by native speakers.

4= the speaker generally speaks naturally and continuously, but there sometimes pauses at natural points in the utterance.

3= there are some pauses but speaker manages to rephrase and continue.

2= it runs less continuously, there often happens pauses.

1= there are ong pauses, utterances left unfinished, or no response.

The scoring system in the pre and posttest is converted to the following scoring system.

1 = 0 – 20

2 = 21 – 40

3 = 41 – 60

4 = 61 – 80

5 = 81 – 100

b. Questionnaire

The questionnaire, which also served as the research instrument, was used to collect the data in finding out the student's response concerning the implementation of the three step interview of cooperative learning in the classroom. Nasution (1982) states that closed questionnaire consist of several questions or statements with the certain answer as the options. The respondents checked the answer based on their own opinions. Questionnaire was not like the speaking test because it did not measure the respondent's speaking ability.

Each item of the questionnaire was arranged in positive statement. The measurement used Likert scale. Likert scale directs the respondent to give a check (√) mark only on the column of response because the statement has been determined. Respondents had to respond according to their own opinion. Each response column had the following scoring system:

- strongly disagree (sangat tidak setuju) = 1
- disagree (tidak setuju) = 2
- agree (setuju) = 3
- strongly agree (sangat setuju) = 4

Because the questionnaire was a researcher-arranged questionnaire, it necessarily needed to be tried out to find out the validity and reliability of the instrument (Faisal, 1981). The procedure is explained in the next description.

Sudjana (2005) suggests the items of questionnaire. The items are developed in the following table.

Table 3.2 The Questionnaire Items

Variable	Aspect Assessed	Indicators	The total of items	Number
The Cooperative Learning: Three-Step Interview Technique	The three-step interview technique towards: <i>the teaching components</i>	Instructional objectives:	12	
		- students can find out new knowledge		11
		- students can develop creativity		13
		methods:		
		- the technique is applicable		3
		teaching material:		
		- the material is understandable		1
		- the teaching is meaningful		7
		- teaching instruction is understandable		8
		- the material is challenging		
- focusing on language features	22			
- focusing on the grammar in the conversation	19			
	20			
learning activity:				
- students practice their knowledge grammar	23			
- taking notes (keywords)	17			
assessment:				
- teacher corrects student's work during the process of teaching and learning	16			
interaction:				

	<i>the communication in learning and teaching process</i>	- students often ask questions	2	9	
		transaction:		18	
		- students are involved in the discussion			
	<i>the teaching success</i>	by process		9	21
		- students are motivated			10
		- students have opportunity to assess themselves			15
		- students have opportunity to correct each other			14
		- teaching process is more interactive			6
		- students' cooperation increases			2
		- learning becomes more active			5
		- learning process is fun			4
by product:					
- speaking skill improves					
- vocabulary increases					

c. Interview

The interview aimed in getting a description about additional information related to the process of cooperative learning: three-step interview which was not asked or stated in the questionnaire. There were 5 open-ended questions asked to the representatives of the experimental group after the treatment is conducted.

3.4.1 Trying Out The Research Instruments

A research instrument is good if it has a high relevance level (Faisal, 1981). The try-out of the research instrument is necessarily administered to find out the validity and reliability of the instrument (Arikunto, 1993). It was aimed to measure the instrument's relevance. The test used in the research was categorized into standard test so it is not necessary to be tried-out to

find its validity and reliability. Arikunto (1993) adds a statement related to this. He states that a standard test conducted is not necessary to be tried-out.

On the other hand, questionnaire needed a try-out since it was developed by the researcher. The try-out was administered towards 30 respondents drawn from respondents of the research beside the research sample.

3.4.2 Testing the Validity and Reliability of The Instruments

In measuring the Likert scale questionnaire, Nugroho (2005) suggests to analyze the reliability through Alpha formula:

$$r = \left(\frac{k}{k-1} \right) \left(1 - \frac{\sum \sigma b^2}{\sigma t^2} \right)$$

of which:

r = the instrument reliability

k = the number of statements in the questionnaire

σb^2 = the number of variants

σt^2 = total variants

The computation of the questionnaire try-out above was technically done by the SPSS 13 for Windows program. The score of validity for each item as stated by Nugroho (2005) is r_{count} that can be seen on the Corrected Item-Total Correlation table of SPSS data output (Abdurrahman, 2005). The computational result can be seen in Appendix.

The questionnaire try out was conducted towards 30 respondents who were not included into both experimental and control group. The respondents were the students of XI IPA 3 class.

From the computation result, one of the 23 questions developed was not valid because it had negative sign. The item was question number 11. Therefore, the questionnaire would use 22 questions.

The commonly-used coefficient for computing the reliability of a research instruments is Alpha Cronbach coefficient. The instrument is considered reliable if the coefficient of Alpha Cronbach ≥ 0.60 (Nugroho, 2005). The SPSS data output of Alpha Cronbach coefficient is listed below.

Table 3.3
Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
,726	,726	23

The reliability statistic of the data output above was 0.726. It revealed that the questionnaire concerned with the cooperative learning: three-step interview was reliable since the Alpha Cronbach coefficient (0.726) was higher than 0.60.

3.4.3 Conducting the Treatment

This experimental study was to see the effect of the two different groups: experimental and control. The experimental was taught using the

cooperative learning: three-step interview technique, while the control would use the conventional technique of teaching. Pretest was conducted before the treatment while posttest was after the treatment. Such activities were conducted to both groups to see the improvement of speaking skill.

The treatment or research schedule will be figured out in the next following table.

Table 3.4 Research Schedule

No.	Experimental Group	
	Date	Activity
1.	7-11-2008	Pretest
2.	14-11-2008	Analytical Exposition
3.	17-11-2008	Narrative
4.	18-11-2008	Spoof
5.	19-11-2008	Unforgettable Experience
6.	21-11-2008	Posttest

The experimental group would be treated using the cooperative learning: three-step interview technique as explained previously. On the other hand, the control group would not be given the mentioned technique. They would not be taught by the researcher, but by their English teacher. The teacher would use conventional method of teaching.

The implementation of the cooperative learning: three-step interview technique will be drawn by the following scheme.

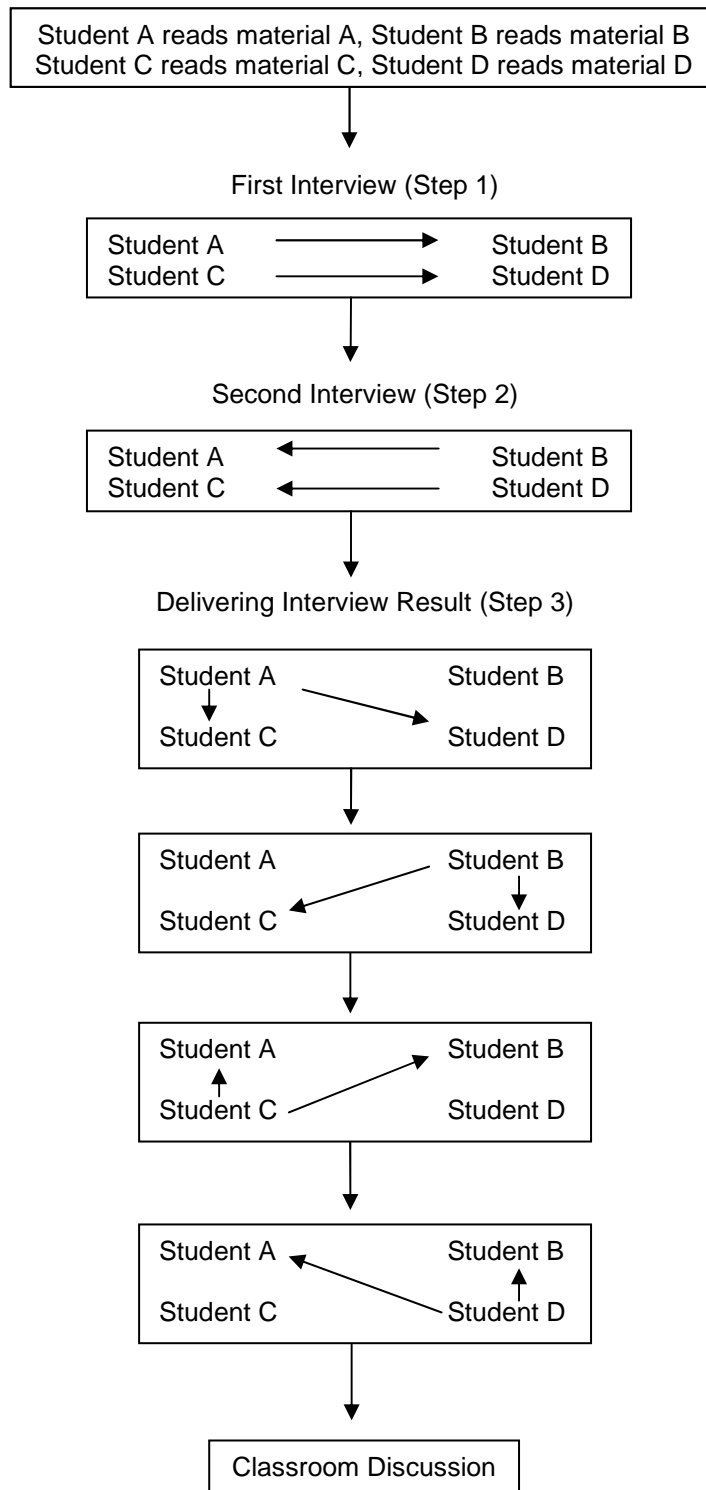


Figure 3.1 The Implementation Scheme of Three-Step Interview

3.4.4 Giving Questionnaire to The Experimental Group

The questionnaire was administered to the experimental group after conducting the treatment to gain more data required and get the students' responses toward the cooperative learning: three-step interview.

3.4.5 Interviewing The Representatives of Experimental Group

In order to get a description of additional information concerning the cooperative learning: three-step interview technique, twelve representatives of experimental group students were interviewed.

3.5 Research Procedure

The research procedure of this study can be described as follows.

- Organizing teaching procedures in experimental and control group classes.
- Organizing the research instruments.
- Administering pre-test to both control and experimental groups in order to find out initial abilities between the two groups who have the similar level in speaking ability.
- Organizing the lesson plan.
- Teaching using Cooperative Learning: *Three-Step Interview*.
- Administering post-test to both control and experimental groups in order to find out the result of the treatment.

- Trying out the questionnaire.
- Administering questionnaire for experimental group in order to gather more information about students' response towards the use of the Three-Step Interview model in teaching speaking.
- Analyzing the data collected from the pre-test, post-test, questionnaire, and interview.

3.6 Data Analysis Procedure

The analysis of the data was done after collecting the required data and the conclusions were made after completing the whole process of this research (pretest, treatment, posttest, questionnaire, and interview).

3.6.1 Test

The data obtained from the pretest and posttest was analyzed by the t-test statistic covering the following steps.

- a. Testing the normality of distribution test,
- b. Computing the homogeneity of the variance,
- c. Computing the t-test by comparing the t_{obt} and t_{crit} ,
- d. Testing the null hypothesis (H_0).

The computation of the above steps was technically done by the Statistical Package of the Social Sciences (SPSS 13 for Windows

Program). The result can be checked in the Appendix whereas the discussion will be explained in the next following chapter.

3.6.2 Questionnaire

The questionnaire data was analyzed through the following procedures.

- a. Evaluating questionnaire,
- b. Classifying the questionnaire answers,
- c. Interpreting the data.

The data obtained by the questionnaire would be analyzed through the following numeral percentage.

$$P = \frac{Fo}{n} \times 100\%$$

Where:

P = numeral percentage

Fo = frequency observed

N = number of sample

3.6.3 Interview

The interview data was classified and transcribed to obtain additional information about the cooperative learning: three-step interview technique used in the experimental group class. The interview result interpretation is given in the next chapter.