

CHAPTER III

RESEARCH METHODOLOGY

Determining the effect of small group learning towards student activeness, the researcher deemed the eighth-grade students at state Islamic junior high school Kudus to be studied. This chapter includes research method, research population/sample, research participants/subjects, tools and methods of data collection, data analysis methods, validity of research data, and ethical issues in research.

A. Research Method

This study employs quantitative research methods in the field. According to Ary, Jacobs, and Sorenson, quantitative research collected numerical data through objective measurement in order to test preconceived notions or provide answers to questions.¹ The research is aimed to know the effect of small group learning method to student activeness in English learning. This research was conducted with a Pre-Experimental designs in the form of the One Group Pretest-Posttest. Pre-Experimental design are research that have not been categorized as real experiments.² Researchers used pre-experimental design because there were no control variables and the samples were not chosen randomly. While the form of research that the researcher chose the one shot case study, which is a design used for one class and then given special treatment, after that an evaluation of the dependent variable is used.³

B. Research Population/Sample

According to Sugiyono, population is not only people, but also all of the quantity of object or subject that learns, but also involve the whole of characteristic of the subject or

¹ Karall, Ranova Wayan. "The Influence of Small Group Discussion Method on Students' Reading Comprehension of SMK PGGRI 2 Kediri". (Article, University Nusantara PGRI Kediri 2019).

² Sugiyono, "Metode Penelitian Pendidikan: (Pendekatan Kuantitatif, Kualitatif dan R&D). (Bandung: Alfabeta, 2016), 109.

³ Subana & Sudrajat, "Dasar-Dasar Penelitian Ilmiah". (Bandung: CV Pustaka Setia, 2011), 98.

object.⁴ The population of the study is one classes of eighth graders students at State Islamic Junior High School Kudus, namely VIII C. The total population was 33 students. The researcher used purposive sampling technique.

Table 3.1
Students' samples to research

No.	Class	Total
1.	Class C	33
Total		33

C. Research Participants/Subject

The researcher attempts to research the effect of small group learning method towards students' activeness in English learning of eighth graders of Islamic junior high school Kudus in academic year 2022/2023. *It is located at Pati-Kudus Street 22 KM. The researcher will examine eighth graders at state Islamic junior high school Kudus.*

D. Design and Definition of Operational Variable

The explanation of variables contained in the author's title is:

1. Small Group Learning Method

Small group learning is a method of learning process in groups, where in one group consist of several students. This method aims to discuss problems and express opinions to each other in a solving a problem.

According Webb and Farivar, the indicators in this study are:⁵

- a. Carried out inclusion activities to help them become familiar and comfortable with classmates.
- b. Create and discussed classroom charts of social skills.
- c. Carried out activities designed to develop basic communication skills and norms for working with

⁴ Febriana, Della Ayu. "The Effectiveness of Small Group Interaction to Improve Students' Speaking Skill at SMK Negeri 1 Boyolangu Tulungagung". (Thesis, State Islamic Institute (IAIN) Tulungagung 2019).

⁵ M, Webb, N., D, J, Troper., & R, Fall. (1995) "Constructive Activity and Learning in Collaborative Small Groups". Journal of Educational Psychology, 87(3), 406-423.

others in group (e.g., listening attentively, not “putting down others”, using a moderate voice level, and encouraging equal participation).

- d. Working on group social skills (e.g., checking for understanding, sharing ideas and information, encouraging others, and checking for agreement).
- e. Acquired knowledge of and experience with particular helpful skills (such as making specific and well-phrased inquiries, persisting in seeking assistance, providing explanations rather than answers, and providing constructive criticism to fellow students regarding their work).

2. Students' Activeness

Students' activeness is an effort or learning activity that is carried out optimally by students. Active learning by creating conditions where students can participate actively in learning. In order to achieve learning outcomes that combine cognitive, affective, and psychomotor components, active learning is a teaching and learning approach that places an emphasis on students' physical, mental, intellectual, and emotional activeness.

According to Usman, M and Setiawati, L, divides activities that indicate activeness in this study are:⁶

- a. Visual activeness, which contain paying attention to the drawings, reading, experiments, and demonstrations other people's work.
- b. Oral activeness, as well as stating, formulating, asking questions, giving suggestions, giving opinions, do interviews and also discussions.
- c. Listening activeness, such as listening: discussions, speeches, conversations, even music.
- d. Writing activeness, as well as writing, essays, stories, questionnaires, report.
- e. Drawing activeness, such as drawing, maps, diagrams, and making graphs.

⁶ Usman, M. and Setiawati, L. (1993) *“Upaya Optimalisasi Kegiatan Belajar Mengajar”*. Bandung: Remaja Rosdakarya.

- f. Motoric activeness, that put among others: doing experiments, making constructions, playing.
- g. Mental activeness, for example: respond, remember, solve problems, analyze, makes decisions.
- h. Emotional activeness, such as: interested, feeling bored, excited, and calm.

E. Instruments and Data Collection Technique

Since gathering data is primary goal of research, data collection techniques represent the most significant stage of the process. Researcher employed this technique and set of instruments to gather data. The following describes the methods of data collection, namely:

1. Observation

When compared to questionnaire and interview techniques, Sugiyono claims that observation is data collection method with unique qualities. Interview and questionnaire techniques always communicate with people while observation techniques are not only limited to people, but also to other natural objects.⁷ Observation is data collection technique through observation direct research activities. Sugiyono states that there are two types of observation used in data collection: non-participant observation and participant observation.⁸ Researchers in conducting research observations use the type of non-participants observation which means that observers are not involved during research activities and only observe conditions at the research location. The research location at State Islamic Junior High School Kudus. The observation was carried out on August 28 to September 16. Research will make observations regarding the process of teaching and learning activities in class and student activity such as students paying attention, actively asking, and actively answering questions from the teacher during the teaching

⁷ Sugiyono 2018, *Metode Penelitian Pendidikan: Pendekatan Kuantitatif, Kualitatif dan R&D*, 162.

⁸ Sugiyono, *Metode Penelitian Pendidikan: Pendekatan Kuantitatif, Kualitatif dan R&D*, 162.

and learning process. This observation was carried out in class VIII C with a total of 33 students.

2. Questionnaire

Questionnaires are research data collection techniques that are answered in writing by respondents in the form of question or statement instruments. This questionnaire data collection technique is one of the most appropriate techniques when the researcher knows exactly what variables will be measured and what is expected of the respondents.⁹ Questionnaires were used to collect data on student. The researcher gave a questionnaire to the students and asked them to fill in the questions that best indicated the active attitude of the students by providing a checklist (√) in the column provided.

In this study the questionnaire technique was chosen to obtain data related to effect on the use of small group learning on the students' activeness in English learning of eighth graders at state Islamic junior high school Kudus. The questionnaire used is closed in nature where each respondent only has to choose alternative answers to each of the questions that have been provided. The questionnaire was compiled referring to the aspects of the use small group learning method and students' activeness. The questionnaire for the small group learning method consisted of 20 Statements, namely 15 Positive and 5 negative statements. And the questionnaire for students' activeness consisted of 20 Statements, namely 15 Positive statements and 5 negative statements.

According Webb and Farivar, divides activities that indicate small group learning in this study that are:¹⁰

⁹ Sugiyono, *Metode Penelitian Pendidikan: Pendekatan Kuantitatif, Kualitatif dan R&D*, 199.

¹⁰ M, Webb, N., D, J, Troper., & R, Fall. (1995) "Constructive Activity and Learning in Collaborative Small Groups". *Journal of Educational Psychology*, 87(3), 406-423.

Table 3.2
Table Indicators of Questionnaire

No.	Indicators	Statement		Total
		Positive	Negative	
1.	Carried out inclusion activities to help them become familiar and comfortable with classmates	1, 2, 4	3	4
2.	Create and discussed classroom charts of social skills	5, 6	-	2
3.	Carried out activities designed to develop basic communication skills and norms for working with others in group	7, 9, 10	8	4
4.	Working on group social skills	11, 12, 15	13, 14,	5
5.	Learned about and practiced specific helping skills	17, 18, 20	-	3
Total			18	

According Ustman, M and Setiawati, L, divides activities that indicate activeness in this study that are:¹¹

Table 3.3
Table Indicators of Questionnaire

No.	Indicators	Statement		Total
		Positive	Negative	
1.	Visual activeness	1, 2	-	2

¹¹ ¹¹ Usman, M. and Setiawati, L. (1993) *“Upaya Optimalisasi Kegiatan Belajar Mengajar”*. Bandung: Remaja Rosdakarya.

No.	Indicators	Statement		Total
		Positive	Negative	
2.	Oral activeness	3, 6	5, 7	4
3.	Listening activeness	8	9	2
4.	Writing activeness	11, 13	12	3
5.	Motoric activeness	14, 15	-	2
6.	Mental activeness	16, 17	-	2
7.	Drawing activeness	18	-	1
8.	Emotional activeness	19, 20	-	2
Total				18

3. Documentation

A collection of documentary data in the form of written materials and images is called documentation. In this study, the names of the subjects, photographs in the research process and other data were recorded as documents. Researcher results can be more reliable if there are photographs or scientific, artistic and other evidence.¹² Documentation in research is used to find out matters relating to school profiles, lesson plans, class atmosphere when delivering English material with using the small group learning method in learning as well as everything that supports researcher at State Islamic junior high school Kudus.

F. Research Data Validity

Validity and reliability instrument were tested with SPSS. So that all instruments can be clearly used. The validity test has difficulty measuring the extent to which the device can test the subject. Therefore, to determine whether the instrument

¹² Sudaryono, *Metode Penelitian Pendidikan*, (Jakarta: Kencana, 2016),90.

can be distributed, the researcher must perform a validity test prior to distributing the questionnaire to the research sample. Additionally, researcher examined the instrument's dependability. When an instrument is used twice or more, its consistency is generally measured by its reliability. In other words, the test for reliability needs to be conducted in a way that ensures the instrument is dependable and suitable for use with the research sample.

1. Validity Instrument

The validity in this study uses construct validity to obtain evidence about the extent to which the measurement results describe the construct of the variable being measured. Judgment Expert can be used when testing construct validity. Consult with experts after preparing the instrument according to the aspects to be measured. Instrument testing will continue after construction testing which will be carried out by experts based on field experience. The Product Moment Correlation formula is used to determine the validity of the instrument with rough numbers. The Product Moment formula with rough numbers used is as follows.¹³

$$r_{xy} = \frac{n \sum XY - (\sum X)(\sum Y)}{\sqrt{\{(n \sum X^2) - (\sum X)^2\} \{(n \sum Y^2) - (\sum Y)^2\}}}$$

Explanation:

- r_{xy} = the correlation between two variables
- n = total of the data
- $\sum XY$ = sum of multiplication X and Y
- $\sum X$ = the number of item value
- $\sum Y$ = the number of value per respondent

An instrument is said to be valid if it has r count $>$ r critical or r table. So that the instrument used is valid if r count $>$ 0,374.

¹³ Suharsimi Arikunto, "Prosedur Penelitian Suatu Pendekatan Praktik), (Jakarta: PT RAINEKA Cipta, 2006), 170.

2. Reliability Instrument

The instrument is said reliable if it has a consistent value on the measurement of learning participants. It implies that a reliability test needs to be carried out to ensure that the instrument is appropriate and reliable. This research used Alpha Cronbach to measures the lower limit of the reliability value of a construct. Alpha Cronbach test is done for instruments that have a correct answer more than one. The formula of coefficient reliability with Alpha Cronbach is as follows.¹⁴

$$r_i = \frac{k}{(k - 1)} \left\{ 1 - \frac{\sum s_i^2}{s_t^2} \right\}$$

Explanation:

K = number of items in the instrument

$\sum s_i^2$ = mean square of mistakes

s_t^2 = varians total

Formula for varians total and varians item are follows:

$$s_t^2 = \frac{\sum X_t^2}{n} - \frac{(\sum X_t)^2}{n^2}$$

$$s_i^2 = \frac{JK_i}{n} - \frac{JK_s}{n^2}$$

Explanation:

JK_i = sum squared throughout score items

JK_s = square number of subjects

G. Data Analysis Technique

Analyzing data is the step that is carried out when all the necessary data for research has been collected. The following actions were taken in order to analyze the data: gathering information based on respondents and variables, presenting information based on respondents, presenting information for each variable examined, solving problems through calculations, and analyzing the previously put forth hypotheses.¹⁵

¹⁴ Febrianawati Yusup, “Uji Validitas dan Reliabilitas Instrumen Penelitian Kuantitatif, Jurnal Ilmiah Kependidikan, Vol. 7, No. 1 (2018), 22.

¹⁵ Sugiyono, *Metode Penelitian Pendidikan: Pendidikan Kuantitatif, Kualitatif dan R&D*, 207

1. Data Analysis of Students' Activeness

a. Data Normality Test

Using the SPSS for Windows version 27 software and the One-Sample Kolmogorov-Smirnov Test formula, the data normalcy test in this study was conducted finding out if the data distribution approximates or follow a normal distribution is the goal of the normality test. Used the Kolmogorov-Smirnov test to examine the sample normality and determine whether the data distribution is normal. Criteria for testing data normalcy:

- 1). If the significance value is > 0.05 , the data is normally distributed.
- 2). If the significance value < 0.05 , then the data is not normally distributed.¹⁶

b. Hypothesis Testing

Using the SPSS software for windows version 27, the Paired Sample t-test was employed in this study. The following are the researcher's hypotheses:

- 1) There is no effect on the small group learning method on students' activeness in English learning at state Islamic Junior High School Kudus.
- 2) There is an effect of the small group learning method on students' activeness in English learning at state Islamic Junior High School Kudus. This hypothesis test used a paired t-test, because it is a hypothesis testing method

¹⁶ Sugiyono, *Statistika Untuk Penelitian*, (Bandung: Alfabeta, 2015), 107.