

CHAPTER III RESEARCH METHODS





This chapter explains the methods used in the research, including the type of research, population and sample, research instruments, data collection techniques, and data analysis techniques that will be used to test the research hypothesis.

3.1 Types of Research

This study uses a quantitative approach, which aims to test the influence between the independent variable, namely reflective teaching strategy, and the dependent variable, namely students reading comprehension. This quantitative approach was chosen because it is in accordance with the purpose of the study, namely to determine whether there is a significant influence of the application of reflective teaching strategy on students' reading comprehension at SMA Negeri 1 Krueng Barona Jaya.


The research design used is a quasi-experimental with a one group pretest posttest design. This class had been given an initial test (pretest) before treatment and a final test (posttest) after treatment.

Table 3. 1 Model Desain One Group Pretest Posttest Design

Design	Pretest	Treatment	Posttest
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Information:

X : Treat in class

 : Giving a pre-test before treatment

◆◆₂ : Post-test administration after treatment

3.2 Population and Research Sample

The population in this study were all grade X students at SMA Negeri 1 Krueng Barona Jaya in the 2024/2025 academic year, totaling 120 students. This population was chosen because grade X students were considered to have sufficient basic reading comprehension to carry out the reflection process on their reading.

The sample for this study was taken using a purposive sampling technique. According to Sugiyono (2019), purposive sampling is a sampling technique with certain considerations. This technique was chosen to ensure that the experimental group and group have equivalent characteristics.

3.3 Research Instruments

The research instrument is a tool used to collect data in this study. The instrument used in this study was a test in the form of pretest and posttest questions designed to measure students' reading comprehension abilities before and after the implementation of the Reflective Teaching Strategy.

3.3.1 Pretest and Posttest

A pretest was given to students before the implementation of the Reflective Teaching Strategy. This pretest aims to measure students' initial reading comprehension abilities. The pretest is in the form of multiple-choice questions consisting of several reading texts followed by a series of questions that test various aspects of reading comprehension, such as:

1. Literal comprehension: Measures students' ability to understand explicit information contained in the text.
2. Inferential comprehension: Measures students' ability to draw conclusions from implicit information in the text.
3. Critical and reflective comprehension: Measures students' ability to analyze, evaluate, and reflect on the contents of the text that has been read.

The pretest questions consist of 7-10 multiple-choice questions with 4 answer options, arranged according to varying levels of difficulty, from simple questions to questions that require higher reasoning.

3.4 Data Collection Technique

The data in this study were collected using several techniques, namely:

1. Reading Comprehension Test

The pretest was given before the treatment began to determine students' initial ability to understand reading texts. After the treatment was completed, a posttest was given to determine the improvement in students' reading ability. The results of both tests will be compared to see the effect of the reflective teaching strategy.

2. Observation of the Learning Process

During the learning process in the experimental class, the researcher will observe the implementation of the reflective teaching strategy. This observation aims to ensure that the reflection steps are implemented according to plan, and students are active in the reflective process.

3. Student Reflection Questionnaire

This questionnaire is used to obtain data on students' self-reflection on the learning process. This questionnaire contains questions related to students' experiences in using reflective teaching strategies.

3.5 Data Analysis Techniques

After the data is collected, the data is analyzed. The data analysis technique in this study was carried out with statistical calculations using SPSS 25 software. The data obtained will be tested with t-test statistics at a significance level of 5% ($\alpha = 0.05$).

3.5.1 Normality Test

The normality test is used to test the variable of students' mathematical thinking ability (posttest result data), whether the data obtained is normal or not. Normal data means having a normal data distribution, to test the normality of data, the Kolmogorov Smirnov test can be used with the provision that if $Asymp.sig > 0.05$ then the data is normally distributed, conversely if $Asymp.sig < 0.05$ then the data is not normally distributed. Normality testing can be done easily when using SPSS 25.

3.5.2 Homogeneity Test

Homogeneity test is used to test whether the data tested in a study is homogeneous data or not. If the data obtained by the researcher is proven to be homogeneous, then it can be continued with data analysis with the t-test, but if the data produced is not homogeneous, then it is necessary to make methodological corrections to the research. Homogeneity testing is carried out with the test criteria being if $t \text{ count} < t \text{ table}$ then the data has the same variance or is homogeneous,

and vice versa if $t_{\text{count}} > t_{\text{table}}$ then the data has different variances or is not homogeneous.

3.5.3 Hypothesis Testing

If the data of two classes are normally distributed and both variances are homogeneous, then to test the research hypothesis the t-test formula is used. Hypothesis testing in this study is the t value obtained (t count) compared to the t value in the percentage value table for the distribution (t table). Normality testing can be done easily when using SPSS 25.

3.6 Research Procedures

The research procedure is carried out in several stages:

1. Preparation Stage

At this stage, the researcher prepares all research instruments, such as reading comprehension tests, reflection questionnaires, and observation sheets. In addition, the researcher also coordinates with the school to arrange the time for conducting the research.

2. Implementation Stage

- a. Pretest: Were given a pretest to measure their initial ability in understanding reading texts.
- b. Treatment Implementation: Students were taught using reflective teaching strategy, students were taught using conventional methods.
- c. Posttest: After the treatment implementation was completed, both groups were given a posttest to measure the improvement in their reading ability.

3. Data Analysis Stage

After all the data was collected, the researcher conducted a statistical analysis to test the research hypothesis.