

## **CHAPTER III**

### **RESEARCH METHODOLOGY**

The third chapter is discussing about all of the research do. It follows by research design, the subject of the study, data collection technique and instrumentation, validity, reliability, and data analysis.

#### **A. Research Design**

In this research, the researcher made an effort to collect the data using a research method. Classroom action research was action-organized to analyze self-reflection and improve learning through evaluation of one's practice, as claimed by Kemmis and McTaggart (2014, p. 15). Researchers and teachers will work together on this study, both the teacher and the researcher are observers. Efron (2013, p. 2) added classroom action research is a word that is frequently used to refer to research that is carried out in classrooms and schools. The purpose of this research is exclusive, and it is unusual in that it uses classroom action research to enhance instruction and student performance.

The reseacher used the classroom action research (CAR) in this research. The problems arose in this study that will target through a two cycles, cycle 1 and cycle 2. According to Burns (2010, p. 8), each cycle used in this research included four steps such as planning, action, observation, and reflection. The purpose of this cycle is to find out the extend in students' basic knowledge of reading comprehension.

## 1. Cycle 1

In accordance with Burn (2010, p. 8), there are four steps in classroom action research. There are:

### a. Planning

Plan is the first step of the regulatory research. Researcher identified a problem or issue and expand a plan of action. Planning also is structure for doing something related to the action that prepared in teaching and learning process. Before introducing the learning process, the researcher was setting up a test to determine the students' foundational reading comprehension knowledge. The researcher had also organized a lesson plan to help students improve their reading comprehension using the think-pair-share technique. Then organizing and making the media necessary for the teaching and learning process, as well as organizing and designing the reading comprehension materials that will be used throughout the cycles.

### b. Action

The next step is action. Action is the realisation of planning that researcher made before. Action is the process of conducting the things in the implementation and planning. In this step, students is practiced how to understand well the reading comprehension using think-pair-share technique. Students will

follow step by step from think-pair-share technique with researcher guiding.

c. Observation

Observation is doing together with action in the classroom. Making an observation serves the objective of documenting the teaching and learning process. The observation is then conducted in the classroom as the teaching and learning process is ongoing. The entire process revolves around one's actions and attitudes as well as all of their supporting behaviors. The researcher used the journal entries to examine the classroom and record every event that takes place there. By employing the think-pair-share technique, it is possible to determine children' enthusiasm in learning to read.

d. Reflection

The last step of cycle 1 is reflection. The reflection is time to reflect, evaluate, and describe the effects of the action during learning process. The aim of reflection is to consider that the research is enough to do or needs to do the next cycle.

In this research, the researcher used classroom action research by Kemmis and McTaggart. The estimate of cyclical AR model based on Kemmis and McTaggart is below:

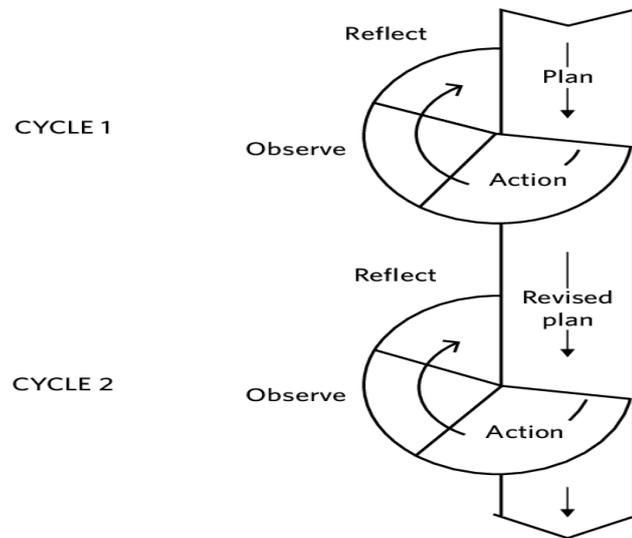


Figure 3.1 Cyclical AR model based on Kemmis and McTaggart (1988)

## B. The Subject of the Study

The subject of this research were the twelfth grade students at senior high school. The researcher took the first year students of XII IPA at SMA Negeri 4 Sintang in Academic Year 2022/2023 as the subject of the study. In this case, the researcher tried to use one class consist of 25 students. The subject of this study were 25 students in twelfth grade of SMA Negeri 4 Sintang, consist of 14 males and 11 females. This grade was chosen because researcher found the problem in the pre observation to this class. The problem focused on reading the text and answering the question. The technique was needed to help the students in comprehending the text. So, the Think-Pair-Share was the technique in order to solve this problem.

## **C. Data Collection Technique and Instrumentation**

### **1. Data Collection Technique**

There are several ways to collect the data, there are observational and non-observational technique. Observational techniques used in research are field notes and photographs. Then non-observational used in research are the reading test and interviews.

#### **a. Observation**

In this section, the researcher conducted observation to see whether students' reading comprehension has improved through instructional activities in the classroom. Based on Mitchell et al. (2010, p. 219), observation can have a purpose in an experiment. One way to obtain information is by observation, which involves observing activity. The component of this technique employed during the teaching and learning process is the observation sheet. The think-pair-share method was used by the researcher to observe the students' abilities and areas of interest in the classroom.

#### **b. Interview**

A direct communication technique is the interview. The purpose of an interview is to get verified information and to go deeper into the responses. Knowing and verifying students' responses to a strategy is useful for the learning process. In agreement with Efron and Ravid (2013, p. 100), conducting interviews as a research approach allows researchers to examine participants' responses,

knowledge, ideas, experiences, and convictions on the study's issue. The interview is conducted in this study after the cycle is completed. The interview guidelines concern the questions related to the usage of the think-pair-share technique in the learning process.

**c. Test**

A test is an stimulant given to students to get an answer or a score. Mitchell *et al* (2010, p. 222) explained the function of the test in a reseacrh is useful to assess a ability, knowledge, or personality of respondent. Test consisted of ten essay questions based on the text that was given to students. Students have to focus on the text to answer the question with limited time.

**d. Documentation**

Documentation will do as an intrument of data analyze about the students achievement, activity, behaviour, and expression during the learning process in classroom. Efron and Ravid (2013, p. 93) noted when the researcher had the lack time or abiity to do the observation in teaching process, the researcher may took the observational notes while teaching in the class.

**2. Instrumentation**

A measuring device called an instrument is used to gather data-related information. The instruments used in this research will be used by the researcher to measure variables or other things of interest during the

data collection procedure. There are some tools that used in this research are observation sheets, interview guideline, test sheets, and documentations.

**a. Observation Sheet**

Based on Burn the researcher used the unstructure or opened observation to know the happen in learning process. The observation sheet was making based on the teaching step on lesson plan. So, it contained the students participation in the class.

**b. Field Notes**

Field notes were the written notes about what is experienced, seen, heard, and thought to gain and describe the data in the research. Field notes was the tool that help to take the informations of all the reseachers' and students' activities during teaching and learning using think-pair-share technique.

**c. Interview Guideline**

Interview guideline was doing to be able conducted the data. The researcher used purposive sampling to gain the data of interview. Based on Lodico (2006, p. 140), participants were selected by qualitative researchers based on their characteristics and expertise related to the research questions to be explored. The participants were not particularly interested in extrapolating the results to populations other than study participants. Targeted sampling is the most commonly used sampling method in qualitative

research. The interview was a draft of question. It aimed to determine to whom the interview will do, to prepare the main problems that will be discussed, and to recognize how do the next step of the result.

**d. Test Sheet**

Test sheet helped researcher to restoration in improving reading comprehension. The test in this research was about ten questions in essay form. The teacher gave the passage about news item text. Then, the students had to answer the question carefully based on the passage.

**e. Criteria of Success**

The criteria of success in this research defines on the teaching and learning process when the researcher was running and the score of the students' worksheet. To find out the success of this research, the researcher needed to make several criterias. The success criteria of this research were separating into cycle guideline and the next cycle should be implemented.

The criteria of success of this research are explained below:

Table 3. 1 Criteria of Success

Aspects	Descriptions
Observation, Field Note, and Interview	If the students participation based on the observation sheet were active and the students response positively based on field note and interview guideline reach at least 70%, the cycle was included successful.
Test	If the students result had an enhancement at least 70%, the cycle was included successful.

#### **D. Data Analysis**

Based on the data collection techniques and instruments above, the data for this study is a combined of qualitative and quantitative data. Qualitative data is taken from observation sheets, interviews and documentations. Quantitative data is taken from the test sheets.

##### **1. Qualitative Data**

Depending on Hopkins (2008, p. 138) qualitative data analysis refers to the lack of approval on accepted analytical methods and have described in a very practical and thorough book. Efron and Ravid (2013, p. 166) asserted qualitative data analysis looks for themes, classes, and repeating patterns in order to provide meaning to the data that has been gathered. An activity for comprehending cultural processing strategies is qualitative research. People have personal and intersubjective meanings when using the methods utilized in this study to gauge certainty. The observation of students' activities during the classroom learning process serves as the study's qualitative data. Research that represents and analyzes the traits of people or groups is called qualitative

research. Even things like phenomena, occurrences, social interactions, impressions, culture, habits, and so forth.

Data conformation is the process of putting information together to achieve a goal. A textual record of qualitative data or a set of field notes. Interviews can also be used to gather qualitative data, specifically when questioning teachers about their students' perceptions of the think-pair-share method for teaching reading comprehension. Interviews conducted prior to and during the classroom action research were used in this study's qualitative data analysis. Student activities during the teaching and learning process were also observed.

In qualitative research, data collection and analysis are typically conducted simultaneously. The analysis of qualitative research data is broken down into three stages, according to Burn (2010, p. 104). Specifically, coding, data compression, and data display.

a. Coding

Coding is the initial step in the analysis of qualitative data. The purpose of data coding, as said by Cresswell (2012, p. 243), to comprehend textual material, divide it up into text or image segments, identify the segments with codes, verify the codes for overlap and congestion, and then group the codes into themes to separate. Researcher took the step of coding to attempt to explain the specifics of the issue. This process was used to pinpoint text and data element parts. Student

names that had been encrypted may make up the data. The data may be coded as the student's name.

b. Data Reduction

Data reduction is done by the selection and selection of the data that cannot support the research. Study challenges that align with the research objectives must be used to support the data. Analysis includes data reduction. In this data reduction stage, the researcher can organize the data and remove any extraneous information. The goal is to produce a precise claim that can be explained and validated.

c. Data Display

Depending on the issue, the data should be divided into various kinds. It is necessary to choose and analyze the data before identifying commonalities and distinctions. It is necessary to describe certain data so that the researcher can quickly reach conclusions. The information was compiled in tables or graphs and comes with a story.

## 2. Quantitative Data

Quantitative data analysis aims to provide answers to research problems, based on Efron and Ravid (2013, p. 190). The resolution of the statistical test affects the research topic and the kind of data that is gathered. Burns (2010, p. 118-119) demonstrated how numerical forms are used to present quantitative data. The presentation of quantitative data takes the form of observations and numbers. The test findings are recorded in a controlled and consistent manner during this research. Quantitative analysis is used to explain a set of numbers,

shorten the total in terms of excess, and display the distribution of the numbers in order to create a more concise numerical representation of an issue.

Singh (2006, p. 224) emphasized that the entirety of mathematical methods or procedures for collecting, describing, organizing and analyzing numerical data is referred to as statistics. Statistics is a fundamental measurement and research tool because studies often provide such quantitative data. Statistical engineering goes back to the fundamentals of analysis, so the researcher who applies statistics is concerned with more than just manipulating data. Then, using objective theory, quantitative research is a means to enhance student performance. The correlation between the variables is criticized by the objective theory. The interviews also include quantitative data. Using speed reading approaches, interviews were done by asking the teacher how the students' comprehension of the learning process was doing.