CHAPTER III

RESEARCH METHODOLOGY

On this chapter the researcher mentioned the method that used to collect the data and find the result of the research. There were some kinds of specific and important things that which mentioned on this chapter by the researcher. They were research design, the subject of the study, data collection technique and instrumentation, the last is data analysis.

A. Research Design

The researcher was implemented the Classroom Action Research (CAR). Because this research done by the action in the classroom to solve students' problems in order to improve their ability in writing descriptive text through the implementation of clustering technique. According to Creswell (2012, p. 576) action research means a way to find and solve specific problems in the field. Usually, action research is a method used in research with the aim of educators being able to improve the quality of education by studying specific problems that occur in the world of education. In doing action research, the main point is it must have specific educational problems to overcome. In short, classroom action research is focus on the problem solving in the classroom that done by the teacher in order to improve students' quality and ability. In the educational world it is so important to realize the problem that faced by the students in the classroom. It was the reason that educators must have ability to use the matched technique that suitable with the problems that occurred in the classroom.

In this research, the researcher went to the school directly to solve the problem that was found in pre-observation. It was conducted in CAR (Classroom Action Research) approach because the research was conducted in the form of teaching and learning activities in the classroom. The researcher focused in improved students writing ability in descriptive text by using clustering technique. Burn (2010, p. 8) stated action research have four important parts in each cycle in the research. Those are known as planning, action, observation and reflection. In this research, the researcher divided into two cycles, each cycle conducted in two meetings in which the researcher finally faced the criteria of success in this research. The researcher used two cycles because it showed the better result and more effective in improved students' writing ability, in which the problems faced by students could be fixed by using the technique presented by the researcher during the research. This research was conducted in SMA Immanuel Sintang and the subject was the class X B students. From some of those points, the researcher finale decision was made the research conducted in two cycles in which it showed the students improvement because the average score of the whole students has faced the criteria of success of this research.

The researcher used research design by Kemmis and McTaggart cited in Burn (2010, p. 8-9). As mention before there are four main parts to use in this model of research as follow the spiral form bellow:
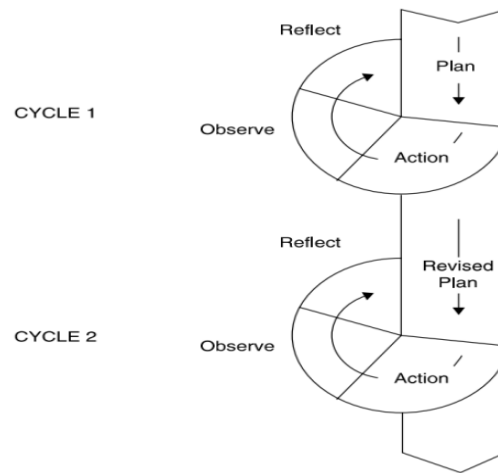
Figure 3.1 The Classroom Action Research model by Kemmis and McTaggart cited in Burn (2010, p. 8-9)

Those four parts in this model explained in detail as show bellow:

1. Planning

    In this stage the researcher would identify the problem and plan the activity that would be held in learning process. Preparation of facilities that supported the running of this technique is done as much as possible. So, there was some equipment that needed to prepare such as lesson plan, teaching material, interview guideline, field notes, smartphone and observation sheet.

2. Action

    In this stage is the implementation of what has been previously planned. The researcher focused on the use of the technique that has been determined. Students were given an explanation on how to write descriptive text using the clustering technique. At this stage the researcher explained about descriptive text and how to use clustering

technique to organize their ideas before make a paragraph. If there is something unclear and did not understand by the students, they may ask the researcher directly.

3. Observation

At this step the researcher observed the effect of action and document the context helped by the English teacher as the collaborator to fulfilled the observation sheets and field notes which prepared by the researcher. It used to saw the actions of the students during teaching and learning activity in which it would help in generated the information in the classroom.

4. Reflecting

In this part the researcher evaluated the actions that have been taken by students. In order to produce more effective results, the researcher divided the research into two cycles because the first cycle did not face the criteria of success of the research. By started with an initial plan as in the first cycle but have be more creative and have improvement than the plan in the first cycle, either through a lesson plan or how to implement the clustering technique.

B. The Subject of the Study

This research was conducted in SMA Immanuel Sintang. The subject of the study was the students of X B class at SMA Immanuel Sintang, which consisted of 20 students in the class. The researcher chosen this class because based on the result of pre-observation the researcher found some problems on

this class that needed to be fixed in order to improve their ability in writing descriptive text by using a technique called clustering technique. So, in conclusion the researcher focused to improve students' writing ability in tenth grade which class is X B that faced some problems in writing descriptive text.

C. Data Collection Technique and Instrumentation

In an action research the researcher needs the tools and technique to give the measurement for the students. It means to prove if the study has engaged students' ability or not. It was the reason that the researcher must decided data collection technique and instrument.

1. Data Collection Technique

Data collection technique means the way of collect the data by using some of methods. Based on Singh (2006, p. 212) data collection means the specific accumulation evidence that help the researcher to analyze the result of all the activities in properly way. The data can be obtained through questionnaire, test, observation, interview, and any kinds of techniques for collecting quantitative and qualitative evidence. In this research, the researcher used four kinds of data collection technique as follows:

1) Observation

In the classroom action researcher it is very important to observe the students' participation and behavior during teaching activities. According to Creswell (2012, p. 213) observation is the process of observing people and also the place of the research to

collect and get the information. In this research the researcher used collaborative observation in which collaboration with English teacher in the school. The collaborator observed students' participation and behavior during learning activity in teaching process. This observation aims to see how the students' participate in the class and how the use of clustering technique helps them in writing descriptive text.

2) Interview

Interview is an activity that conducted by asking some questions to the interviewees. According to Johnson and Christensen (2014, p. 316-317) interview is a data collection method in which interviewer asked respondents some questions. The purpose of interview is to clarify the information from the respondents who provide the data. In this research the interview was carry out by the researcher in obtaining the data by asking some students after the action in the classroom. The purpose of the interview was to know their opinion about learning process using clustering technique. The interviewees of the research were selected by using purposeful sampling. Based on Lodico et al (2006, p. 140) purposeful sampling is a procedure that used by the researcher to selected the participations which have the key knowledge and information related to the topic discussed on the research. The researcher choose the interviewees by three criteria such as the students with high score

included one student, students with medium score included two students, and the students with low score included two students. So the researcher interviewed five students as the key information of the learning processed. After done with the interview, the result was written in the form of script. The researcher have interviewed in first and second cycle.

3) Measurement

To measure the students work the researcher needed the scoring rubric, in order the data would be conducted effectively. According to Lester et al. (2014, p. 45) measurement is the systematic assignment of numbers to individuals as a means of characterizing the individuals. These numbers should be assigned using a carefully defined and repeatable process. It can use by different formats depending on the type of scale that are designing and assign numbers based on the properties that will be measure. Measurement theory is a branch of applied statistics that attempts to describe, classify, and evaluate the quality of measurements (tests, instruments, scales, etc.) So, measurement is important to help the researcher in counting the score of the students' work by using scoring rubric.

4) Documentation

The researcher used documentation to support the data. Creswell (2012, p. 223) stated document is beneficial information for

the researchers in which it helps to understand important phenomena. It consists of two types of documents, public documents and private documents. Public documents consist of minutes from meeting, official memos, etc., and private documents consist of notes, diaries, journals, etc. In this research the researcher took some photographs while the learning activities and also the students' video while they write descriptive text used clustering technique. The purpose is to show the situation during the learning activity. It would be the real proof shown by the researcher, and to help researcher notes more the information. Then the other documents were lesson plan, observation sheet, interview guideline, field notes, and students' writing products.

2. **Instrumentation**

Instrument is the tool that used by the researcher to collect the data. In this research the researcher used observation sheets, field notes, interview guideline and students worksheet as the data collection instruments.

1) Observation sheet

Observation sheet was used to collect the data by observed the whole activities during the learning and teaching activity. As claimed by Burns (2010, p. 62) observation sheets are referred to as systematic or structured observation. This type of observation involves the use of a coding system or checklist created before the

lesson begins. Observers record their observations as categories of events, such as behavior or interaction types. In this research the researcher was helped by the collaborator to observed students' participation, which to known if they are active in the class, listen to teacher explanation well, and to observed the students who are able to follow the lesson well using clustering technique, besides that student behavior is also considered.

2) Field notes

   Field notes used to write the detail information in the classroom while teaching activity. Leavy (2017, p. 136) mentioned field notes are field observation notes or recorded notes. It was important to write the date and time in the field notes to keep a chronological record. The field notes were made by the collaborator in which to write some information in the classroom during teaching and learning process, both researcher and students' activities were observed by the collaborator. It helped to consider what things that needed to improve on next meeting.

3) Interview guideline

   Interview guideline used by the researcher to collect the data, it consisted of some questions related to the learning process. Burns (2010, pp. 74-75) said interview is a way that usually used in the research that conducted in the form of conversation to explore more about the focus of the research. There are three types of

interview such as structured interviews, guided or semi-structured interviews, open-ended conversational. In this research, the researcher used the structured interviews types. It is the most controlled type of conversation in order a researcher tries to get the same specific information from each respondent. The advantage is the researcher can compare the answers to the same question by all respondents. So, it means that the researcher prepares the interview guideline before conduct it and also the researcher would compare the students' answers. The interview carried out by the researcher after the class was done and the respondents are some of the students.

4) Test

Test is the way to gather the score of the students. According to Brown (2004, p. 3) test is a method that used to measure the ability, knowledge or performance of some one. In this research the researcher use test to get the number of students' score, it is used to measure students' ability in writing descriptive text through the implementation of the clustering technique. The students did the test made the descriptive text by using clustering technique, the result of the test calculated using the scoring rubric. So, it was a way of collecting data by asked the students to collect the results of their work in writing on a sheet of paper.

a. Scoring rubric of writing descriptive text

Table 3.1 Writing scoring rubric adopted from Weigle (2002, pp. 115-116)

Component of Writing	Score	Indicators	Scale
Content 30%	4	The topic is complete and clear, and the details are related to the topic	X 7.5
	3	The topic is complete and clear but the details are almost relating to the topic	
	2	The topic is complete and clear but the details are not relating to the topic	
	1	The topic is not clear and the details are not relating to the topic	
Organization 20%	4	Identification is complete and descriptions are arranged with proper connectives	X 5
	3	Identification is almost complete and descriptions are arranged with almost proper connectives	
	2	Identification is not complete and descriptions are arranged with few misuse of connectives	
	1	Identification is not complete and descriptions are arranged with misuse connectives	
Grammar 20%	4	Very few grammatical or agreement inaccuracies	X 5
	3	Numerous grammatical or agreement inaccuracies	
	2	Few grammatical or agreement inaccuracies but not affected on meaning	
	1	Frequent grammatical or agreement inaccuracies	
Vocabulary 15%	4	Effective choice of words and word form	X 3,75
	3	Few misuse of vocabularies, word forms, but not change the meaning	
	2	Limited range confusing words and word form	
	1	Very poor knowledge of words, words form, and not understandable	
Mechanics 15%	4	It uses correct spelling, punctuation, and capitalization	X 3,75
	3	It has occasional errors of spelling, punctuation, and capitalization	
	2	It has frequent errors of spelling, punctuation, and capitalization	
	1	It is dominated by errors of spelling, punctuation, and capitalization	

Score = C (obtained score x 7.5) + O (obtained score x 5) +
G (obtained score x 5) + V (obtained score x 3.75) +
M (obtained score x 3.75)

The scoring rubric criteria were divided into four criteria as follow:

Table 3.2 Scoring Rubric Criteria

No	Score Level	Classification
1	4	Excellent
2	3	Good
3	2	Fair
4	1	Poor

D. Data Analysis

Data analysis was one of the most important parts in a study. Data analysis used by researcher in collecting data to be more accurate and reliable. According to Creswell (2009, p. 186) data analysis is a process carried out when conducting a study in collecting data. It consists of analysing information from the participants. Usually the researcher uses an analysis of the general measures and found in a particular strategy. It means that data analysis is a step taken by researcher in collecting data from research.

In this research, researcher used two kinds of data analysis, namely qualitative data and quantitative data. Because classroom action research (CAR) requires these 2 important elements, qualitative data is used to analize the data descriptively, while the use of quantitative data is to assess in the form of numbers on test section that conducted by students in order it will make it easier for researcher to know whether students have increased or not.

1. Qualitative data

Qualitative that used by the researcher to analyze the data namely as descriptive qualitative. According to Miles and Huberman (1994, pp. 10-

11) there are three activities in qualitative to analyse the data such as data reduction, data display, conclusion drawing and verification. These three activities will be explained more as follows:

1) Data Reduction

Data reduction referred to the processed of data selection, concentration, simplification, abstraction, and transformation. It occurs when a researcher decides which conceptual framework, case, research question, and data collection approach to choose. The data reduction process continues after the fieldwork is completed until the final report is produced. In research, it is very important to filter important information. This produces a large amount of data, so it needs to select and determine only the data that is important. In this research, data reduction focused to identify the techniques for improving students' writing skills, writing descriptive problems, and solutions to overcome these problems.

2) Data Display

Data display was an organized and condensed version of information that could draw conclusions and take action. It helped the researcher to understand what was happened and analyse it further or do something to take action based on that understanding. It referred to displaying previously reduced data in the form of a clear pattern. It really helped researcher to understand the data. Researcher was focused on explaining the reduced data in terms of sentences. The data

display consisted of observation sheet description in the form of paragraph, field notes and interview transcript.

3) Conclusions Drawing and Verification

In qualitative research, it was well known that drawing conclusions was only a temporary conclusion. It meant that conclusions could change if the researcher did not find sufficient evidence to support further data collection. However, if researcher could validate and consistently prove the conclusions of previous data when the researcher return to the field, the data are credible conclusions. In this case, the researcher draws conclusions from the data display.

2. Quantitative data

Quantitative data was used to support qualitative data. It meant they were connected to each other, the score that was obtained from students' writing assignments in the form of test. According to Aliga and Counderson as cited in Muijs (2004, p.1) quantitative research describes the phenomenon by collecting numerical data that is analysed by using mathematically-based methods. So, in this research the researcher needs to use numeric data to analysed students' score. Test is used to see how far, the improvement of students' ability in writing descriptive text by using clustering technique. In order to prove the result of the test the researcher needs to calculate it in numerical form. It will help to conclude or prove

how the effectiveness of clustering technique to improve students' ability in writing descriptive text in each cycle.

1) Criteria of Success

In this research, the researcher created the criteria success in which it used to determine whether the research successful or not. The criteria of success of this research were explained on the table below:

Table 3.3 Criteria of Success

Aspect	Descriptions
Observation and interview	If 80% of the students were active, enthusiasm, happy, and enjoy the leaning process the cycle is considered to be successful
Test	If 80% of the students' score increased the cycle considered to be successful