

CHAPTER III

RESEARCH METHODOLOGY

This chapter discussed about the research design used in this research, the subject of the study, technique of data collection and the instrumentation used in collected the data, validity and reliability and also the stages in analyze the data.

A. Research design

In this study the researcher used the Classroom Action Research (CAR) method, the researcher chose this method because learning by using mind mapping is one of the elements that is suitable for improving writing skills and able to provide new vocabulary for students. Using textbooks is not enough, teacher are required to be creative in creating activities in the classroom that can make students happy to learn English.

Classroom Action Research (CAR) is considered very suitable to be used, because this research is focused on the problems of learning to write X multimedia class students that arise in the classroom, in order to improve learning and improve the teaching and learning process more effectively. According to Parinya Meesuk et al (2020:100) Classroom action research based instruction defined as the teaching and learning process by emphasising that the research process has two related parts which are the research process and the research result. Thus, through Classroom Action Research, education and learning problems can be studied, improved, and resolved so that innovative education and learning processes and optimal learning outcomes can be realized systematically.

Classroom Action Research in the classroom to solve problem and improve students ability Dyah Mutiarin et al (2023:469) Because this feeling of pleasure is a very important basic ingredient so that English language skills can get better. In this Classroom Action Research (CAR) using Kurt Lewin (1990) model, this research includes the following steps:

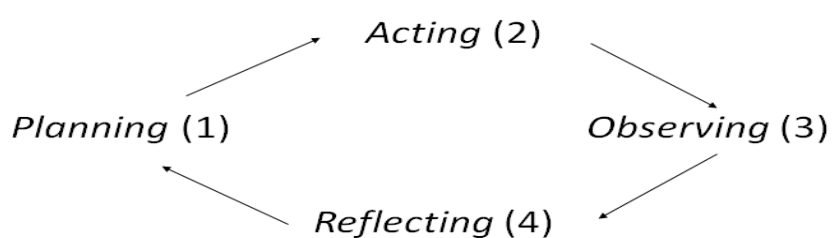


Figure 1.

Flow of CAR Model according to Kurt Lewin (1990)

A. Planning

Planning is a series of plane actions for improve what has already happen. In action research a must forward oriented. After indentifying the students' problem in writing based on the interview with teacher and student the researcher and the teacher discussed together to make a modul based on the current ATP (*Aksi Tindakan Pembelajaran*). The modul was prepared to be implemented in class X Multimedia Smkn 1 Dedai academic year 2021/2023. The modul mentioned any instructions regarding prosedurs of teaching, media, resources, assesment test and the criteria of success.

B. Acting

In this step the researcher and the teacher collaborate to carry out the plane action the teacher used the mind mapping technique to teaching while the researcher observed the class condition during the teaching and learning activity, the action will be do in two meeting for each cycle.

C. Observing

The researcher carried out implementation of the action using the observation sheet when do observing the researcher should look around and note all activities in the classroom it is about the teacher's performance, class situation, students' response and so on, the researcher also collected the data derived from the assessment or post-test in this section.

D. Reflection

The researcher discussed with the teacher to find out whether action is successful or not by seizing results with the success of success if still find some problem the researcher and teacher need to proceed to the next cycle. Therefore unfinished problems hopefully can be solved in last section is carried out to find out the actions that are actually carried out based on on the data that has been collected.

B. The Subject of The Study

The subject of this research were the students at class x Multimedia SMKN 1 Dedai they are in 2022/2023 academic year , the students consisted 19 students. The researcher choose x multimedia as the subject of this

research because the researcher finds the problems of writing mastery in this class. Therefore by implementing procedure text with mind mapping technique is expected by students Class X Multimedia became more active and learning outcomes especially in English subjects become increase.

C. Data Collection Technique and Instrumentation

1. Data Collection Technique

The data collection technique is a method used by researcher to collect data with tools that are suitable for use in research. As said by Jakni (2017:68) the data in the research comes from the interaction of teachers and students in learning English and in the form of learning action data or learning behavior generated from student activity while the data collection tool use must be adapted to the data collection technique ,in this research the researcher will use some technique to collect the data it is interview, observation, test, field notes, documentation.

b. Observation

In this study, the researcher used an observation checklist to provide qualitative data of the research that have been implemented. The researcher uses this instrument to get some information about the teacher's performance during CAR and the situation of classroom activities. So the contents of the observations are about student attendance, students interest and motivation, student activities during the teaching and learning process and student activities in focusing the attention to the teacher's explanation during the research conducted.

c. Interview

In this research interview done twice before and after implementing Classroom Action Research. The first, the researcher interviews the teacher and students to know student difficulties in writing skill, students' condition in writing activity, and the strategy that usually used by teacher in teaching writing. After that, the researcher interviews the teacher and students to know their response toward the idea of using mind mapping technique in teaching writing for especially in text procedure, in this research the researcher used face to face types to interview the students and teacher.

d. Measurements

Researcher used measurement techniques to obtain data in this research, measurement is an activity carried out to determine quantitative facts by comparing something with a standard unit of measure that is adjusted according to the object to be measured. In this case the teacher assesses student achievement by reading or observing what students do, observing their performance, hearing what they say, and using their senses such as seeing, hearing, touching, smelling and tasting.

e. Documentation

Documentation is used to record or photograph, the purpose is to confirm learning activities in the classroom. Documentation is a

method of collecting information by studying documents to obtain information related to the problem being studied, the documentation in question relates to how learning activities, teacher and student activities during the implementation of efforts to improve understanding of writing skills through mind mapping techniques.

2. Instrumentations

In this research to collect the data the research used some tools of data collection, that is: Observation sheets, test, Interview Guidiline and field notes.

a. Observation sheets

Observation are ways to findings more about the studens response, studens behavior, students activities during the learning process with the students writing ability. In line with Nur Alfin et al (2020:186) Observation is based on the assumption that affective characteristics can be noticed from behavior or action, psychological reaction, or both. So the interaction between students and the interaction between students and teachers as well as the situation in the classroom when learning to write procedure text through mind mapping should be analyzed.

b. Field Note

The field notes in this study are authentic evidence in the form of main notebooks, decomposed notes about processes that occur in the field or at school in accordance with the focus of the research, which are written descriptively and reflectively. Mike Allen

(2017:563) explained field notes are the written observation recorded during or immediately following participant observations in the field and are considered critical to understanding phenomena encountered in the field note. Therefore, researcher need to record what happened at school so that improvements can be made at the next meeting.

c. Interview Guideline

The interview addressed for student is about whether the students like to writing, whether mind mapping is an effective technique to improve writing skills, the teaching and learning process of writing and the problem of writing. The researchers do interview addressed to teacher know about English learning process in the class, the most difficult skill for students, the activities in English learning process, the problem in teaching writing strategy and media used in teaching writing, the participation of students in teaching writing and mind mapping strategy, interview guideline is used to researcher get information.

d. Test sheet

The study result test questions made by the researcher before have consulted with the English teacher, this was done to determine student abilities. Test sheets were prepared in this study to record students' results in oral tests. On this test sheet the researcher wrote down the student's name, the aspects to be evaluated, the score obtained by the student and the student's total score.

e. Video Recording

In this study researchers used video recording to record student learning activities in class. Taking of documentation is another way to confirm and complete the data obtained by researcher, while what is done by researchers is to make decisions images in the form of videos and photos at the time of observation.

a). Scoring rubrik and assesment indicators

To determine students' writing ability, the researcher conducted five aspects of assessment which included content, organization, language use, vocabulary and mechanics.

Table 1.1 Scoring Rubric

Score	Level	Criteria
Content 20%	4	Excellent to very good: Knowledgeable, substantive, thorough development of thesis, relevant to assigned topic.
	3	Good to average: some knowledge of subject, adequate range, limited development thesis, mostly relevant to topic, but lack detail.
	2	Fair to poor: limited knowledgeable of subject, title substance, and inadequate

		development topic.
	1	Very poor: doesn't show knowledgeable of subject, non-substantive, non-pertinent, or not enough to evaluate
Organization 20%	4	Excellent to very good: fluent expression, ideas clearly stated, succinct, well-organized, logical sequencing, cohesive.
	3	Good to average: somewhat choppy, loosely organized but main ideas stand out, limited support, logical but incomplete sequencing.
	2	Fair to poor: not-fluent, ideas confused/disconnected, lack logical sequencing and development.
	1	Very poor: does not communicate, no organization, or not enough to evaluate
Language Use 20%	4	Excellent to very good: effective complex construction, few errors of agreement, tense, number, word order/function, articles, pronouns, prepositions

	3	Good to average, effective but simple construction, minor problem, in complex construction, several errors of agreement, tense, number, word order/function, articles, pronouns, prepositions but meaning seldom obscured.
	2	Fair to poor: major problem /complex construction, frequent errors of negotiation, agreement, tense, number, word order/function, articles, pronouns, preposition and/or fragments, run-ons, deletions, meaning confused or obscured
	1	Very poor: virtually no mastery of sentence construction rules, dominated by errors, does not communicate, or not enough to evaluate
Vocabulary 20%	4	Effective choice of words and word forms.
	3	Few misuses of vocabularies, word forms, but not change the meaning.
		Limited range confusing words and

	2	word forms
	1	Very poor knowledge of words, word forms, and not understandable
Mechanic 20%	4	Excellent to very good: demonstrates mastery of conversations, few errors of spelling, punctuation, capitalization, paragraphing
	3	Good to average: occasional errors of spelling, punctuation, capitalization, paragraphing, but meaning not obscured.
	2	Fair to poor: frequent errors of spelling, punctuation, capitalizations, paragraphing, poor handwriting, meaning confused or obscured.
	1	Very poor: no mastery of conversations, dominated by errors of spelling, punctuation, capitalization, paragraphing, handwriting illegible, or not enough to evaluate.
Total Score		1-100

Adapted from Jacobs et al. (Abraham Reyhan 2012)

This is the formula to calculate the percentages in this observation:

Total score/percentages =

D. Data Analysis

There are kinds of data to collect the data in the Classroom Action Research they are qualitative data and quantitative data. Qualitative data it is about classroom situation or student's behavior during learning activity and quantitative data it is about improvement of students evaluation. a more complete explanation as follows:

1. Qualitative Data

We define analysis as consisting of three concurrent flows of activity; data reduction, data display, and conclusion drawing/verification Miles, Huberman & Saldana (2014:10).

a. Data Reduction

In this research, the data obtained from observations. The researcher made some notes about whatever that the researcher observed and then he made coherent description based on the notes. Reducing the data could be interpreted as the process of selection, simplification, and transformation of the data in the field.

b. Data Display

By used data display researcher will display data using column and table then researcher describe the answer based on problem statements. Such as describe the method implemented in learning writing using mind mapping technique in SMKN 1 Dedai and the

result in teaching writing before and after using the mind mapping technique.

c. Conclusion Drawing and Verification

The third analysis activity conclusion drawing and verification through verifying the data the researcher drew conclusions throughout the course, the researcher write only what the researcher saw in classroom activity for each day and interpretation of those observations.

2. Data Analysis of Quantitative

The quantitative data from the writing test analyzed by used descriptive technique, the data can be seen from the students' mean scores before and after the action research was conducted then from the scores of the writing test, the students' progression level identify.

1. Criteria of Success

To know whether the action is success the researcher and the teacher will discussed about the action of success criteria, to determine the indicator of success in this Classroom Action Research (CAR) if students writing mastery has increased. In this research, the researcher carried out two cycles there are cycle 1 and cycle 2. The success criteria are used by researcher as a guideline for deciding whether using this cycle is successful or not and the next cycle needs to be carried out. The success criteria in this study are described in the following table:

Table 1.3 Criteria of Succes

Aspect	Description
Observation	If 75% students are active, learn effectively and enjoy the teaching and learning process, it means the cycle is successful
Interview	If 75% students give respond positively and give good opinions to the learning process, it means the cycle is successful
Measurment	If 75% the student's writing ability increases and gets a high score in writing lessons, it means the cycle is successful