CHAPTER III
RESEARCH METHODOLOGY

A. Research Design

The research design serves as a process for conducting the research process, guiding decisions on data collection instruments, sampling, data collection, and data analysis. Choosing an appropriate research design is crucial for the successful execution of the research, and in this study, the selected design is Classroom Action Research (CAR). In this research, classroom action research was determined to be used because there was a problem that occurred in class, and by implementing the stages in classroom action research, the teacher was able to improve the learning process through an in-depth study of what happened in the class. The actions taken by teachers are solely based on actual and factual problems that are developing in the class. As outlined by Kemmis and McTaggart cited in Burns (1993:32), the CAR model comprises four integral steps: planning (identifying problems), acting (collecting data), observing (analyzing and interpreting data), and reflecting (developing an action). These steps collectively form a cycle.

a. Planning

In the context of classroom action research, action plans are formulated based on the identified problem and the proposed action hypothesis. The preparatory phase involves outlining specific actions intended to enhance or modify the targeted behaviors and attitudes as a solution to the identified problems. Following the identification of students' challenges in learning vocabulary, the researcher developed a comprehensive plan to enhance their vocabulary mastery. This involved preparing and planning teaching materials aligned with the syllabus content. In this process, the researcher undertook several essential steps, including:

1. Compiling a list of student names and assessments.
2. Crafting a learning implementation plan (RPP).

3. Creating flashcards as a medium to enhance students' vocabulary mastery during learning.
4. Formulating a class observation checklist to monitor events during the learning process in the classroom.
5. Organizing for a test to assess the improvement in students' vocabulary mastery.

b. Acting

After the preparatory phase comes the implementation stage, where the previously devised action plan is put into action. During the execution of research actions, the researcher must adhere to the predetermined material design and tactics. The objective is to enhance the learning process, specifically focusing on vocabulary. This process encompasses the following steps:

1). Welcoming students.
2). Verifying student attendance.
3). Administering a pretest.
4). Instructing students on the use of flashcard media.
5). Conducting the posttest.

c. Observing

During this stage, the researcher carefully observes and documents everything necessary to be in line with the research objectives while implementing the action. Field notes, for instance, can be employed to gather essential information and document visuals during the application of flashcards to enhance the English vocabulary mastery of students at SMP Negeri 02 Sungai Kakap.

d. Reflecting

This stage involves processing the data, encompassing the documentation of observation outcomes, assessing the observations, analyzing the effects of research measures, and identifying shortcomings based on the data gathered during observations.

If certain aspects proved less effective in the initial cycle, the insights gained from this reflection will be utilized as material for planning in the subsequent cycle. Addressing a specific issue may necessitate more than one cycle, and these cycles are interlinked, persisting until the objectives of the Classroom Action Research (CAR) are achieved.

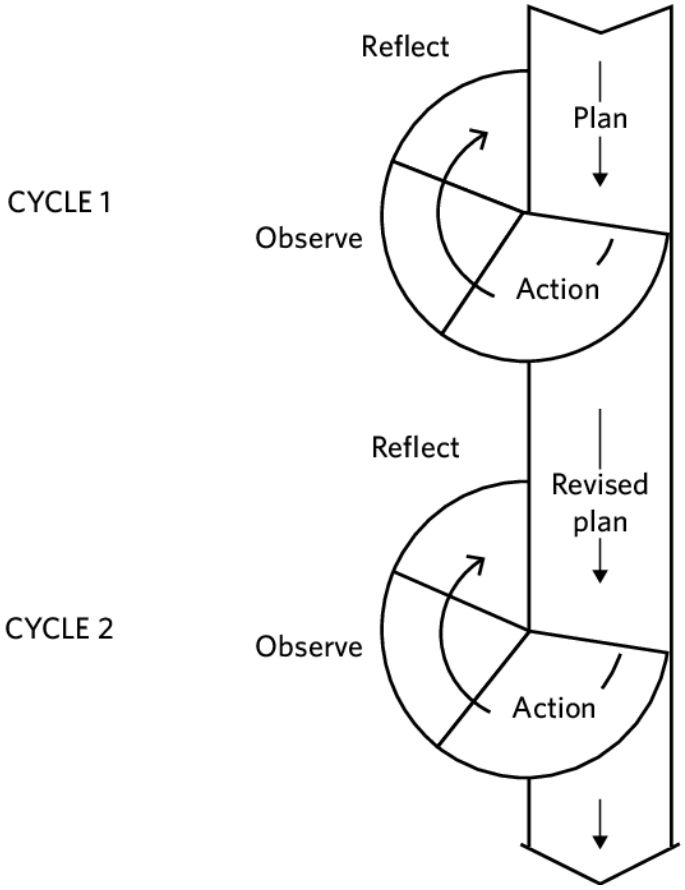

Figure 1: Kemmis and McTaggart model (1988:11-14, cited in Burns 2010)

B. Subject of the Research

In this research, the subject of this research were students of VIII B at SMP Negeri 02 Sungai Kakap, in the academic year of 2023/2024, this eight class consist of 32 students.

No.	Level	Number of Students		
		Boys	Girls	Total
1.	VIII B	15	17	32

The reason why the writer choose the eight grade students because the writer found a problem in this class, because there was little mastery of vocabulary compared to other classes, apart from that, the writer asked the English teacher directly about the students' lowest average score, and the English teacher answered that class 8 B was the lowest average student score and their knowledge of English vocabulary was still small. Therefore, the witer focuses on implementing flashcard media in order to improve students' vocabulary mastery in this research.

C. The Technique of Data Collection

Collecting data is an activity to obtain real data or materials in research. The process of data collection become a fundamental stage in research, significantly influences the quality of results by minimizing potential errors in a research project. Therefore, in conjunction with a well-designed study, it is crucial to allocate sufficient, high-quality time to collect data for obtaining accurate results. Inadequate and inaccurate data can impede the assurance of findings accuracy Kabir, 2016 in Taherdoost H (2021:11).

In conducting this research, writer used mainly 2 techniques of data collection, observation and measurement. As cited from Taherdoost (2021), These methods involve the direct gathering of first-hand data by observing events, behaviors, interactions, processes, etc., to comprehend the concepts. For instance, observation is a suitable approach for assessing teaching methods in classrooms.

a. Observation

Qualitative observations entail the writer making field notes on the behavior and activities of individuals at the research site. In these field notes, the researcher documents activities at the research site in an unstructured or semi-structured manner, incorporating some pre-existing questions that the investigator aims to address Creswell J W (2014:181).

b. Measurement

Measurement involves systematically assigning numbers to individuals to represent their properties. Numbers are allocated to individuals based on a carefully defined and repeatable procedure. For example, a personality test generates scores by using the same instructions, questions, and scoring procedures for each examinee. Scores could not be compared meaningfully if examinees were each given different instructions or items or if different scoring procedures were used. In measurement, numbers are assigned systematically and can be of various form (Allen and Yen, 1979:2).

D. Tools of Data Collection

The tools of used in this research are:

a. Observation Checklist

In this research, researchers used observation checklist as tools of data collection. Observation checklist is a guide in research observation that contains aspects that can be observed. This observation sheet is used as a measure or to assess the learning process in the classroom, so that you will get specific feedback regarding aspects of learning. Hong C J, *et al* (2020). The initial phase in creating an observation checklist is to establish the theoretical or conceptual foundation, serving as the groundwork for comprehending, detailing, and assessing the practical outcomes of teachers.

b. Field Note

Field notes are notes written or transcribed based on data collected during observations. Kawulich 2005 in Hernandez (2018:2555), stated that field notes act as a documentation of observed activities or events, including informal discussions conducted in the field.

Neuman, 2011 in Hernandez (2018:2555), found out various forms of field notes employed in qualitative data collection. These encompassed jotted notes, which are brief memory prompts; direct observation, written immediately after leaving the field; inference notes, reflecting social relationships, emotions, and meanings; analysis notes, covering

methodological strategies and theoretical insights; interview notes, detailing information about interview locations and interviewees; and personal journals, capturing personal feelings and emotional reactions.

c. Test

Test a is tool which commonly used to measure the ability of knowledge possessed by students. With the test, it is very easy for the teacher to measure whether the student's score has increased or not. Adom D, *et al* (2020:110) One of the frequently employed evaluation methods in education is the administration of tests. Going beyond being perceived merely as instruments, tests can be viewed as established procedures utilized to systematically assess a sample of behavior by presenting a set of questions. These assessments are crafted to gauge the quality, ability, skill, or knowledge of a sample against a predefined standard, typically considered acceptable or not. In educational contexts, tests serve as mechanisms to ascertain students' proficiency in completing specific tasks or demonstrating mastery of a skill or content knowledge. These assessments may manifest in the form of multiple-choice questions or weekly spelling evaluations.

2. The Technique of Data Analysis

In this research, the writer uses two data to be studied, namely qualitative data and quantitative data.

1). Qualitative Data

Qualitative data is data that characterizes something. Qualitative data can be observed and recorded. Qualitative data are non-numeric in nature and this data is collected through observation methods. Based on Taherdoost (2021:8), the researcher plays a crucial role in qualitative analysis, relying on techniques, knowledge, and integrated skills to interpret the analysis outcomes. Qualitative research steps in data analysis according to Miles M.B *et al* (2014:13)

a. Data Condensation

Data condensation refers to the process of selecting, focusing, simplifying, abstracting, and/or transforming the data that appear in the full corpus (body) of written-up field note, observation, interviews transcripts, dokuments, and other empirical materials. By condensing, making data stronger.

b. Data Display (Data Presentation)

The second major flow of data analysis activity is data display. Generically, a display is an organized, compressed, assembly of information that allows conclusion drawing and action.

c.Conclusion Drawing (verification)

The third stream of analysis activity is conclusion drawing and verification. From the start of data collection, the qualitative analyst interprets what things mean by no patterns, explanations, causal flows, and propositions. "Final" conclusions may not appear until data collection is over, depending on the size of the corpus of the field notes; the coding, storage, and retrieval methods used; the sophistication of the researcher; and any necessary deadline to be met.

2). Quantitative Data

Individual scores and the average score of the assessment are use to assess the level of increasing students' vocabulary mastery. The scoring rubric is as follows:

a). The Individual Score

In this research the writer use two formula, they are formula in measuring students' individual score and mean score. The writer will count the individual score of the students by using this following formula:

$$X = \frac{correct\ answer}{Total\ item} \times 100$$

(Taken from Heaton, 1988: 172)

To determine the results of student achievement scores, the writer used the passing grade, the passing grade is 75, at SMP Negeri 02 Sungai Kakap, Kubu Raya Regency.

Value Interval for Passing Grade 75

Range	Qualification
93-100	Very Good
84-92	Good
75-83	Achieved
<75	Not Achieved

b). The Formulation of Means Score

The writer will count the means score for all of students, the formula is as follow:

$$M = \frac{SUM\ OF\ X}{N}$$

Note: M= Mean score

X = Sum of students' score

N = Number of Students

(Taken from Heaton, 1988: 176)