

CHAPTER III RESEARCH METHOD

3.1.Type of the research

This study utilizes Classroom Action Research (CAR) as its methodology to address vocabulary learning challenges among students. As Rasuan (2019, pp. 317-326) explains, CAR serves as a valuable tool for teacher development while simultaneously improving student learning outcomes. The research follows Kemmis and McTaggart's CAR model (as cited in Rizakhojaveva, 2020, pp. 160-166), which involves continuous cycles of planning, implementation, observation, and reflection to enhance teaching practices (Bancin & Siagian, 2019; Nanda et al., 2021, pp. 205-213). This cyclical approach allows educators to systematically identify classroom challenges and develop targeted solutions.

Building upon these theoretical foundations, this research applies CAR to investigate and enhance learning motivation among tenth-grade students at SMK Negeri 1 Ulumoro'o. The study specifically examines how Quizizz media can improve student engagement with learning materials. To properly conduct this CAR, the researcher will collaborate with a tenth-grade English teacher who will assist in observing both student responses and teaching implementations during the research process. The focus of investigation centers on how Quizizz-based activities affect students' motivation when working with textual materials.

Supraba 2019-p.539-544, stated that The characteristic of classroom action research are:

1. Situational, contextual, small-scale, realized and are directly relevant to the real situation in the world of work.
2. Flexible and adaptive.
3. Classroom action research has a commitment to the improvement of education in action research conducted systematic monitoring to generate valid data.

3.2.Procedure of the research

Classroom Action Research (CAR) follows a structured, cyclical approach consisting of four key phases: planning, implementation, observation, and reflection (Bancin & Siagian, 2019, pp. 138-145; Nanda et al., 2021, pp. 218-229). This method allows teachers to systematically enhance their instructional practices. The research process is iterative - if the initial cycle successfully improves students' vocabulary mastery, the study concludes. However, if the desired learning outcomes aren't achieved, the research continues into a second cycle with adjusted strategies based on previous findings. Sahlan Tampubolon 2021-p.79-86, lists the steps of the research can be illustrated as follow:

1. Planning

Planning refers to the process of carefully preparing and organizing instructional activities before they occur in the classroom. For teachers, these plans serve as practical guides that outline the teaching strategies and learning activities they intend to implement. Effective planning often involves mapping out lessons for an entire week or unit in advance. However, good lesson plans also maintain flexibility to accommodate unexpected classroom situations and adapt to curriculum requirements as needed.

2. Action

The acting phase involves putting plans into practice in the classroom. This is where teachers implement their prepared lessons, but must remain adaptable to real-time situations. Effective implementation requires flexibility - educators need to make quick decisions and adjustments based on how students respond. Throughout this process, teachers should continuously assess what's working through brief, informal evaluations to ensure the lesson stays on track.

3. Observation

The observation phase serves to gather important classroom insights, including student engagement levels and any challenges that emerge

during the lesson. These observations become valuable data that informs the reflection process. Since this information shapes future teaching decisions, it's crucial to conduct observations with close attention and care.

4. Reflection

Reflection serves as an essential review process where teachers examine their completed lessons. This thoughtful analysis helps educators assess what worked well and identify areas for improvement. Through reflection, teachers can evaluate the effectiveness of their teaching methods, analyze classroom challenges that emerged, and determine better approaches for future lessons. This evaluative process ultimately informs their professional decision-making and helps refine their teaching practice.

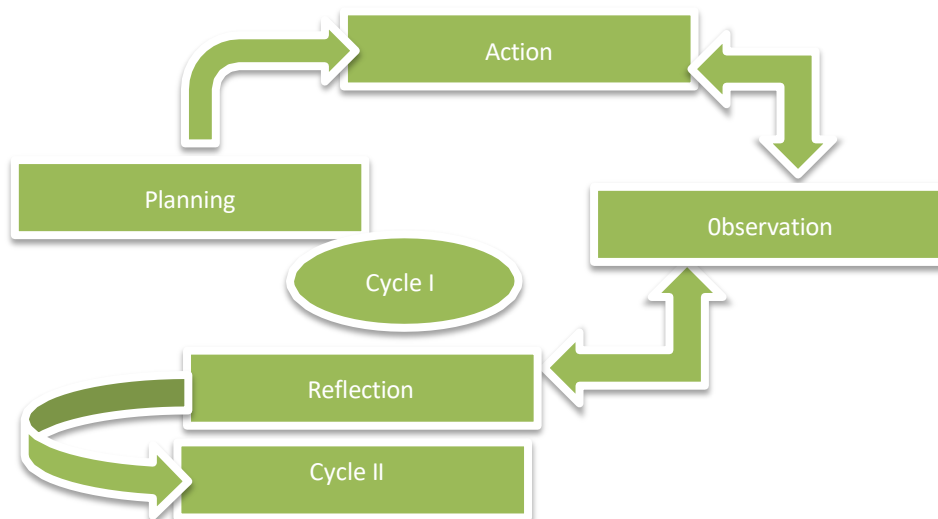


Figure 3.1 Classroom Action Research Cycle

Utomo Prio and colleagues (2024, pp. 1-19) outline the four fundamental phases of action research: (1) planning, (2) action (implementation), (3) observation, and (4) reflection. These stages form a continuous cycle for improving teaching practices. Below is a detailed breakdown of each phase:

1. **Planning** In the planning stage, the teacher details aspects such as what will be done, the reason, the time, the place, the implementer, and the way

the activity is carried out. The teacher determines the focus of the problem or event to be addressed and develops observation instruments to record facts during implementation. The selection of service strategies that are in accordance with the characteristics and needs of students is also an important part of planning so that the implementation of actions runs effectively, realistically, and systematically.

2. **Action (Acting)** This stage involves executing the carefully designed lesson plan in the actual classroom setting. Teachers apply their prepared instructional model while using all the planned teaching materials and resources. The implementation stays focused on bringing the theoretical plan to life while carefully observing how students respond to the strategies. Teachers must balance following their prepared structure with being responsive to real-time classroom dynamics.
3. **Observing** In the observation stage, the observer observes the action process carried out by the teacher. The observer simultaneously monitors the implementation of classroom actions to assess changes in student behavior resulting from the services provided. Data collection instruments, such as observation sheets, are used to record the level of student success during the activity.
4. **Reflecting.** At the reflection stage, the teacher conducts an evaluation collaboratively to assess the results of the program service activities that have been implemented. Evaluation includes analyzing events during activities as well as problems that arise. The results of reflection are used as a basis for improving future actions.

Meanwhile, according to Ferdiansah Rudi 2023, in class action research, four action steps are usually carried out, namely: (1) planning, (2) action, (3) observation or observation, and (4) reflection. To provide a clearer picture, here is an explanation of each of these steps.

1. Planning in Classroom Action Research Steps

Basically during this planning step, a number of activities should be carried out as shown below.

- a. **Planning.** When selecting classroom problems to research, teachers

should focus on real challenges they encounter during actual lessons. The ideal research topic should meet several key criteria: it needs to be a genuine issue affecting student learning, something that would make a meaningful difference if improved, and within the teacher's ability to address through practical interventions. Essentially, teachers should look for those persistent classroom situations where finding solutions could significantly enhance their students' learning experiences and outcomes.

- b. Developing a context for the importance of the ongoing research. It should be clear here that there is indeed something that needs to be qualitatively researched, improved and enhanced.
- c. State the research question clearly The formulation of the problem is usually in the form of a question, but it can also be a declarative sentence
- d. Determine how to take action. This is often referred to as formulating a hypothesis of action. In formulating a hypothesis, action is usually taken by formulating several alternative actions, then choosing several actions that are predicted to be the most promising for improving or increasing the quality of learning.

2. Action

Classroom action research follows an iterative process that starts with an initial cycle of four key phases: planning, implementation, observation, and reflection. After completing the first cycle, teachers carefully analyze the outcomes to identify what worked well and what challenges emerged. These insights then inform adjustments to the action plan for the second cycle.

While the second cycle maintains the same basic structure as the first, teachers incorporate specific improvements to address the difficulties encountered previously. This might involve modifying teaching strategies, adjusting materials, or trying new approaches to overcome the identified obstacles.

The research continues through these cycles until the desired learning outcomes are achieved. When the teacher determines that the established

success indicators have been met (typically within two cycles), they can then draw meaningful conclusions about the effectiveness of their interventions and the significance of their findings.

When planning an action research lesson, teachers should outline key details to ensure clarity and effectiveness. This includes:

1. Research Steps- Clearly defines each phase of the classroom action research process (planning, action, observation, reflection).
2. Teacher's Role- Specify what the instructor will do during the lesson (e.g., facilitating discussions, modeling skills, providing feedback).
3. Student Engagement– Describe expected student participation (e.g., group work, problem-solving tasks, reflections).
4. Learning Materials – Identify the resources and tools used (e.g., digital apps, visual aids, hands-on materials).
5. Assessment Tools– Explain how progress will be measured (e.g., observation checklists, rubrics, student self-assessments) and how they will be applied.

3. Observation

During this phase, the teacher-researcher carefully monitors their own teaching practices while documenting key observations, significant moments, and any challenges that arise during implementation. To ensure thorough and objective analysis, teachers should use a structured observation framework or checklist to systematically track both teaching strategies and their effects on student learning.

Researcher collected two types of data when observing classes. First, they gather numbers like test scores, quiz grades, and assignment marks to measure student performance. Second, they notice student behaviors - how interested and motivated students seem, how well they participate in discussions, and how they work with classmates. Both types of information help teachers understand what students are learning and how they're learning it.

When observing students, teachers should pay attention to how well they work together in groups, the thoughtfulness of their questions during

lessons, how complete and accurate their responses are when participating in class discussions, and how effectively they exchange ideas when collaborating with peers. These interactions provide valuable insights into students' understanding, communication skills, and social development in the classroom setting.

The following are examples of data to be collected during observation activities, namely:

- (a) Graded essay test results using a scoring rubric
- (b) Raw essay test scores without grading marks
- (c) How effectively students participate in group discussions
- (d) The depth and relevance of student questions and responses during lessons
- (e) Significant student behaviors worth noting during class activities.

4. Reflection

During this stage, the teacher carefully examines the data collected from observations to evaluate whether their teaching strategies successfully enhanced the learning process and student outcomes. By reviewing both quantitative (numerical) and qualitative (descriptive) data, the teacher assesses what worked well and identifies areas needing improvement. This reflective process helps uncover weaknesses in the current approach, which then informs adjustments for the next cycle of action research.

The reflection phase involves several key activities: Observing
Reviewing classroom interactions and student responses, Evaluating
Measuring the effectiveness of teaching methods, Analyzing
Breaking down data to identify patterns and insights. Synthesizing
Combining findings to form conclusions. Planning revisions
Using insights to refine future teaching strategies.

To illustrate this process, the researcher includes a visual representation of the action research cycle, which consists of four repeating stages: planning, action, observation, and reflection. These steps create a

continuous loop of improvement, allowing teachers to refine their methods based on real classroom evidence.

To make it clearer, the researcher provides an explanation of the activities that will be carried out in each meeting, as follows:

“Cycle I”

1. The first meeting

a. Planning

- 1) The researcher prepared the lesson plan
- 2) The researcher prepared the reading text about expository text
- 3) The researcher prepared the quiziz media
- 4) The researcher prepared the attendance list
- 5) The researcher prepared the test
- 6) The researcher prepared observation sheet to know the problem in students' motivation

b. Action

1) Pre teaching activities

- (a) The researcher entered the class and greet the students
- (b) The researcher invites one of students to pray
- (c) The researcher checked attendance list
- (d) The researcher informed about the material and give information about the quiziz Media to the students

2) While teaching activities

- 1) The researcher explained the learning objectives
- 2) The researcher asked students to read the text that has been provided
- 3) The researcher presented material using quiziz application
- 4) The researcher divides students into groups with each group consisted of 3 students
- 5) The researcher distributed question links from Quiziz to students according to the material provided
- 6) The researcher guided students to work on questions from quizizz using a

student's cellphone 1 person per group

- 7) The researcher assigned students to work on questions in quizizz
 - 8) The researcher monitored the time allocation with all activities carried out
 - 9) After students have finished working on the question, the researcher sees the student's score on the application
 - 10) After the researcher taught and applies the quiz application, the researcher distributes the test to students
 - 11) After students took the test, researchers collect student answer sheets.
 - 12) The researcher again asked students one by one to do the questions in front of the class while correcting the correct answers.
- 3) Post teaching activity
- 1) The researcher asked the students to screenshot their work
 - 2) The researcher makied conclusion together
 - 3) The researcher closed the meeting by praying together

c. Observation

- 1) The teacher-collaborator observed the students' activity, action, respond, attitude and weakness during the teaching learning process.
- 2) The teacher-collaborator observed the researcher' activity.

d. Reflection

- 1) The researcher discussed with the collaborator teacher about the actions that had been taken related to student activities, actions, responses, attitudes and weaknesses during the learning process.
- 2) The researcher and teacher evaluated students' weaknesses in vocabulary mastery and mad decisions for the next cycle.

“Cycle II”

This cycle followed directly from the first one, aiming to address the shortcomings identified earlier and enhances students' learning abilities. The researcher decided to proceed with this cycle after observing that many students still struggled with the material, as reflected in their task scores, which fell below the minimum passing standard (KKM). To address these gaps, the researcher revisited each step of the process revising the plan,

implementing adjusted actions, conducting further observations, and reflecting on the outcomes to ensure meaningful improvement.

3.3.Setting and schedule of the research

This study will take place at SMK Negeri 1 Ulumoro'o, situated in Lawelu Village, Ulumoro'o District, within West Nias Regency, North Sumatra Province. The research is scheduled to run from February 2nd to March 2nd, 2025, in collaboration with an English teacher who handles tenth-grade classes at the school.

3.4.Subject of the research

The research subjects were tenth grade students at SMK Negeri 1 Ulumoro'o. The students consist of 19 people (11 men and 8 women). Therefore, the researcher increased students' learning motivation by using Quiziz application learning media. Based on the information above, the researcher compiled in table

Class	Gender		Total
	Men	Women	
X-TKJ	11	8	19

Tabel 3.1: Subject research

3.5.Variable of the research

In research, variables are essential components that help examine and interpret the relationships between different phenomena. Simply put, variables are traits, properties, or measurable aspects of individuals, objects, or activities that exhibit variation. Researchers identify these variables to analyze them in greater detail. According to Ulfa (2019), a variable refers to any attribute, characteristic, or value of people, objects, or behaviors that can differ from one case to another, allowing researchers to study patterns and draw meaningful conclusions.

A variable essentially serves as a distinguishing feature that sets one subject, individual, or object apart from another. When a variable changes, its associated measurements, scores, or values also shift accordingly. In this particular study, two independent variables and one dependent variable are examined. Priadana & Sunarsi (2021) categorize variables in quantitative

research into different types:

- a. Independent variables (or predictor variables) are those that influence or trigger changes in another variable.
- b. Dependent variables (or outcome variables) are the results affected by the independent variables.

In this research, the dependent variable is student motivation, while the independent variable is the use of Quizizz media as an educational tool.

3.6. Instruments of the research

Researcher used some instrument to support data collection during the learning process. These instruments as follows:

3.6.1. The Observation Sheets

For this study, the researcher utilized two separate observation sheets—one for monitoring the teacher and another for tracking student activities. These sheets were filled out by a collaborating teacher, who documented both the students' engagement and the researcher's instructional methods throughout the learning process.

3.6.2. Test

On the other side, in analyzing the data writer uses the tests (pre action, cycle 1 and cycle 2).

3.7. Data collecting techniques

For this research, there were four techniques which used by the researcher to collect the data as follows:

1. Observation sheet

For this research, classroom observations were conducted to monitor the teaching and learning process. The primary focus was on observing student engagement and participation throughout the sessions. These observations helped determine whether the implementation of the study aligned with the planned actions and objectives that had been established beforehand.

2. Field notes

Field notes serve as blank documents where collaborating teachers can

document observations about the learning process, including areas needing improvement, successful elements, and notable developments during classroom activities.

3. Test

A test refers to a collection of questions or tasks designed to measure students' knowledge or skills by evaluating their responses. In this study, two forms of assessment were administered: a pre-test (before the intervention) and a post-test (after the intervention) to measure learning progress. They are the following:

a. Pre-test

To assess students' baseline knowledge, an initial vocabulary test was given prior to introducing the interactive teaching methods. This preliminary assessment consisted of objective-style questions, incorporating both multiple-choice items and blank-filling exercises to measure word recognition and usage skills.

b. Post-test

Following the instructional period using Quizizz application, students completed a final vocabulary assessment to measure their learning progress. This concluding evaluation served to compare their performance before and after the teaching intervention, demonstrating any knowledge gains through score comparisons. The assessment instrument mirrored the initial test's format, featuring multiple-choice items and blank completion exercises to maintain consistency in measurement.

4. Documentation

The researcher collected institutional documentation to gather comprehensive data about SMK Negeri 1 Ulumoro'o, including the school's historical background, current number of teachers and administrative staff, student population statistics, and overall facilities. Additionally, this documentation process was used to obtain students' academic records and assessment scores. These official records provided

reliable data about both the school's profile and student performance, ensuring the accuracy and validity of the information used in the study.

5. Interview sheet

The research employed interviews as a key data collection method, involving direct conversations between the researcher and participants to gather targeted information. These structured interviews served multiple purposes: first, to understand students' learning motivation; second, to identify challenges they faced during lessons; and third, to collect baseline data before the main study. The interviews followed a predetermined format with carefully sequenced questions, ensuring consistent data collection across all participants while maintaining focus on the research objectives. This approach allowed for systematic exploration of student experiences while providing comparable qualitative data about their learning process.

3.8.Data Analysis techniques

1. Analysis the Qualitative Data

This study employed a mixed-methods approach, combining both qualitative and quantitative analysis techniques. Following Amrullah et al.'s (2019) framework, the qualitative analysis adopted a flexible approach that could be either linear or cyclical in nature. The qualitative examination occurred concurrently with the instructional process, allowing for real-time insights. The analysis followed three key phases: first, a comprehensive review of all collected data; second, data reduction through systematic categorization; and finally, drawing and validating conclusions from the processed information. This structured yet adaptable approach ensured thorough examination of both numerical data and experiential insights throughout the research period.

Data analysis technique that used in this research are:

a. Data Reduction

The data reduction process streamlines research findings by filtering out non-essential information while highlighting significant patterns

and recurring themes. This analytical technique transforms raw data into a more manageable format, enabling researchers to efficiently identify core insights and guide subsequent investigation. By distilling complex information into its most relevant components, data reduction serves as a fundamental analytical tool that enhances the research process.

b. Data Display

Once data has been condensed through the reduction process, researchers organize and visualize the information to reveal meaningful patterns. This presentation phase transforms raw findings into accessible formats like tables and charts, allowing clear interpretation of relationships within the data. By systematically categorizing information and selecting appropriate visual representations, researchers create a foundation for both understanding current results and designing future studies. The displayed data serves as a valuable reference point, making complex relationships immediately apparent and actionable for further investigation.

c. Conclusion Drawing and verifications

The conclusion phase requires researchers to interpret their analyzed data and assess how well it answers the original research questions. This involves carefully examining patterns and insights to determine their meaning and importance. Alongside this, verification serves as a quality check - researchers repeatedly examine their data to ensure their interpretations accurately reflect students' responses to teacher feedback. This dual process of meaning-making and validation strengthens the study's credibility by confirming that findings genuinely emerge from the evidence rather than researcher assumptions.

Student Test Results: student test scores were calculated using the following formula:

2. Analysis the quantitative Data

The quantitative data taken from the test by using the formula of mean by

Syah (2009).

$$\text{Score} = \frac{\text{Total Correct Answer}}{\text{Total Test Items}} \times 100$$

Calculating the mean score of students' motivation test by using the following formula:

$$X = \frac{\sum x}{N}$$

Where:

X: Average

$\sum X$: Number of scores (grades) of existing students

N: Total sample

Furthermore, to determine the students' achievement into classification as below:

No.	Scores	Category
1.	80-100	Very good
2.	70-79	Good
3.	60-69	Enough
4.	50-59	Satisfactory
5.	0-45	Bad

(Syah, 2009)

Table 3.2 The classification score for test

To find out the average percentage of student learning motivation, the following formula can be calculated:

$$P = \frac{F}{N} \times 100\%$$

Description:

P = Percentage

F = The frequency being sought for percentage

N = Number of frequencies or number of individuals

From the above calculations, the average percentage of student learning motivation will be obtained, which is then put into the criteria for student learning motivation as shown in Table 1.

Percentage of Motivation	Interpretation
<u>Student Learning</u>	
20% - 36%	Very Low
37% - 52%	Low
53% - 68%	Medium
69% - 84%	High
85% - 100%	Very High

Source: (Syachtiyani and Trisnawati, 2021)

Table 3.3. Student Motivation Scale