

CHAPTER III

RESEARCH METHOD

This chapter discussed the research design, subject of the research, time of the research, instrument of the research, technique of data collection, control variable and technique of data analysis. The explanations are presented below.

A. Research Design

In this research, the researcher used the data from a class in an elementary school which has a problem that needed to be solved in mastering vocabulary. The researcher wanted to help students improve their vocabulary knowledge for their next school level. It was easier to learn English if they had a lot of vocabulary knowledge in their minds. Then, the researcher wanted to help the students learn vocabulary in a new and fun way. Based on the main problem, which was the difficulties in mastering vocabulary, the researcher decided to take Classroom Action Research (CAR). In this research, classroom action research was aimed at improving students' vocabulary mastery by using the Spelling Bee game to teach vocabulary to young learners in the fourth grade of SDN 1 Jetak in Academic Year 2022/2023.

The research design in this research was Classroom Action Research (CAR). Classroom Action Research is a form of the research that involves the teacher and an investigation of her or his own classroom (Sigelakis, 2019). Furthermore, action research was carried out in the classroom by the course's teacher to solve the problem or improve the learning or teaching process. The

purpose of classroom action research was to find out the problem and solved that problem in the teaching-learning process in the classroom.

In this research, the classroom action research used the design by Kemmis and Mc Taggart (2014). Action research activities in the classroom always involved a repeating cycle. Then, each cycle consists of four steps like: planning, action, observation, and also reflection. The result of one cycle was used to determine the need for next cycle until the problem or issue could be resolved. The cycle was illustrated as followed.

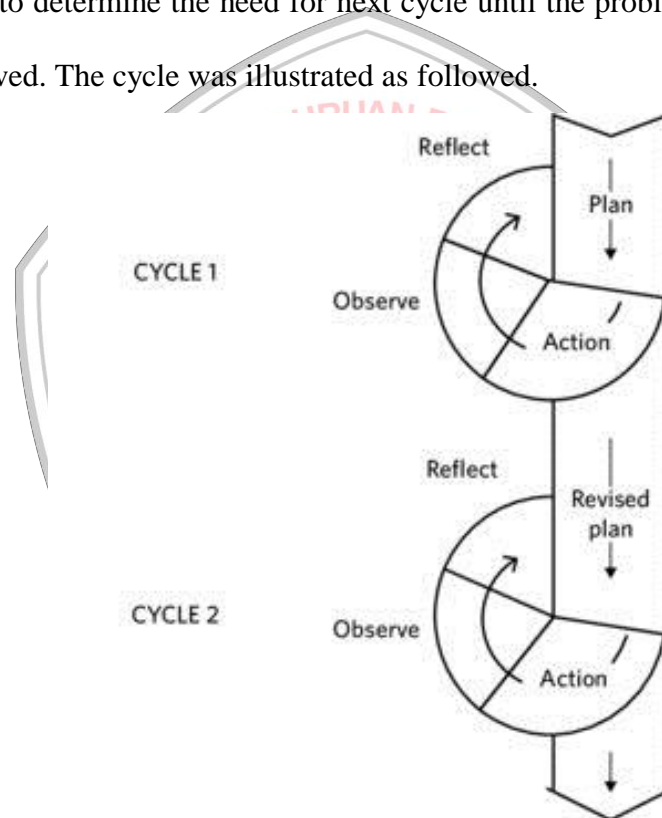


Figure 3. 1 Kemmis and Mc Taggart Model of Classroom Action

In planning, the researcher prepared the needed for the first cycle. In this step, everything that was needed in the teaching-learning process included what, where, who, and how was prepared by the researcher. In the planning stage could be described as; determine the research schedule, designed lesson

plan, prepared the teaching materials, and also prepared observation sheets and student worksheets. The second step was action. At this stage, the researcher implemented the plan that was the lesson plan for teaching-learning process in the classroom. The next step was observation. At this stage the researcher observed and performed simultaneously with the researcher's actions as a collaborator. In the final stage of this cycle was reflection. The researcher looked back at what happened and evaluate the outcome of student actions.

Moreover, the researcher decided if improvements were needed for next cycle. If the first cycle was successful, the researcher stopped the research. However, if the first cycle could not improve, the researcher modified the plan then continued and repeated the action until the Minimum Adequacy Criteria (*KKM*) reached.

B. Subject of the Research

The researcher conducted this research at elementary school level. The subjects of this research were the fourth-grade students of SDN 1 Jetak. This class consist of 11 students. In fourth grade, there were 5 girls and 6 boys. The school was located in Jetak Village, Tulakan Sub-district, Pacitan Regency, East Java Province. The location of the school was close to the village office, village health service, and also surrounded by residents' houses.

C. Time of the Research

The researcher managed the time of the research in order to make the research more effective and efficient. Time table was crucial for researcher as a schedule for doing research. So, all the steps and research procedures could be done on time. The researcher started to write the S1-thesis in October 2022. The report compiled until May 2023. The time of the research was presented in the table below.

Table 3. 1 Time of the Research

No	Activities	Time								
		Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun
1	Research preparation and submission									
2	Submitting proposal									
3	Seminar proposal									
4	Gathering data									
5	Analyzing Data									
6	Report Arrangement									
7	Examination									

D. Research Procedure of CAR

This classroom action research used the design by Kemmis and Mc Taggart (2014). Action research activities in the classroom always involved a repeating cycle. Then, each cycle consists of four steps: planning, action, observation, and reflection. The first cycle continued to the next cycle until the result reached the indicator of success or the result improve than before the action. The cycle of classroom action research was presented below.

1. The Procedure of Cycle I

There were four activities in cycle I. The activities were; planning, acting, observing, and reflecting.

a. Planning

The first step in cycle I was planning. At the planning stage, the researcher made and prepared about everything that was needed in the teaching-learning process. Here were the steps in planning:

- 1). The researcher designed and prepared a lesson plan.
- 2). The researcher prepared the instruments for the vocabulary test.

b. Acting

This stage was implementation of the planning in teaching English vocabulary by using Spelling Bee game as a media. This stage consists of three parts, namely pre-activities, main activities, and post activities.

1). Pre-Activities

- a). The researcher greeted the students. Then the researcher as a teacher, asked the students to pray together, then the researcher asked about students'

news, checks students' attendance and readiness to learn English. Then encouraged the students with yells, claps, or other habits of the class.

b). The researcher explained the learning process for that day and what the objectives of the learning activities.

c). The researcher prepared the students for teaching-learning process in the class.

2). Main Activities

a). The researcher explained the procedures of Spelling Bee game to students.

b). The researcher asked students to play the Spelling Bee Game by using the researcher's phone.

c). The researcher asked students to tell the researcher about the score.

d). After playing the Spelling Bee Game, the researcher gave a post-test cycle I to know the result of treatment.

3). Post-Activities

a). If all students had played the Spelling Bee game and after doing the post-test cycle I, the researcher reviewed the vocabulary in the game by using whiteboard in the class.

b). The researcher and students wrote, spell, and read the vocabulary then look for difficult words and interpret them together.

c. Observing

During this step, the researcher who acted as a teacher observed each student's actions. In this first cycle several things could be concluded as observations, among others; (1) students enthusiastically when students

played Spelling Bee game. (2) The researcher watched the student's focus and concentrate while played the Spelling Bee Game (3) The students focus and concentration while done the post-test Cycle I. This observation used fieldnote to make the result based on the real situation.

d. Reflecting

The last step in this cycle was reflecting. Here, the researcher analysis the result of post-test cycle I. There were some activities:

- 1). The researcher analysis the problem in cycle I and found the solution.
- 2). The researcher prepared the instrument for next cycle to repair the process in cycle I.

2. The Procedure of Cycle II

The researcher revised the treatment in cycle I and continued to cycle II because the result in cycle I did not pass the standards of completeness. As same as in cycle I, there were four steps:

a. Planning

The first step in cycle II was planning. The researcher made planning in order to focus in achieving the research objectives. There were some steps in planning:

- 1). The researcher designed and prepared a lesson plan.
- 2). The researcher prepared the questionnaire sheet for students.
- 3). The researcher prepared the instruments for the vocabulary test.

b. Acting

In this step, the researcher conducted some activities in the classroom as followed:

1). Pre-Activities

- a). The researcher greeted the students. Then the researcher as a teacher, asked students to pray together, then asked about students' news, checks students' attendance and readiness to learn English. Then encouraged the students with yells, claps, or other habits of the class.
- b). The researcher explained the learning process for that day and what the objectives of the learning activities.
- c). The researcher prepared the students for teaching-learning process in the class.

2). Main Activities

- a). The researcher explained the procedures of Spelling Bee game to students.
- b). The researcher asked students to play the Spelling Bee Game by using the researcher's phone.
- c). The researcher asked students to tell the researcher about the score.
- d). After playing the Spelling Bee Game, the researcher gave a post-test cycle II to know the result of treatment.

3). Post-Activities

- a). If all students had played the Spelling Bee game and after doing the post-test cycle II, the researcher reviewed the vocabulary in the game by using whiteboard in the class.
- b). The researcher and students wrote, spell and read the vocabulary then look for difficult words and interpret them together.

c. Observing

During this step, the researcher who acted as a teacher observed the teaching-learning process during the treatment in cycle II. There were:(1) the researcher observed the teaching-learning activity and wrote down on the book like students enthusiastically when students played Spelling Bee game. (2) The researcher watched the student's focus and concentrate while played the Spelling Bee Game (3) The students focus and concentration while done the post-test Cycle II. This observation used fieldnote to make the result based on the real situation.

d. Reflecting

Reflecting was a last step of this procedure. Here, the researcher analysis the result of post-test in cycle II. There were some activities:

- 1). The researcher calculated the students' scores after cycle II and compared them with cycle I to measure the improvement.
- 2). The researcher analysis the result of the questionnaire.

3). The researcher decided to stopped the action.

E. Research Instrument

Research instruments had several kinds. Research instruments were the tools used in the research to collect the data. In this research, the researcher used tests to measure students' achievement and performance during the activities.

1. Worksheet

According to Ary, Donald et al. (2010), tests are useful measuring tools for academic study. A test consists of a series of stimuli given to a subject in order to elicit responses from them, from which a score could be calculated. This score, which was based on a sample of the subject's behavior that was representative of the whole, was an indication of how much the subject possesses the trait being tested, and it was an essential step in educational research. The researcher used two tests, namely pre-test and post-test.

a. Pre-test Sheet

Pre-test was the test given before the researcher applied the Spelling Bee Game media. Pre-test was used to know the students' abilities before the media was given to the students. The researcher gave 20 questions to the students. The themes of vocabulary were music, beauty, sport, food, colors, cosmos, and nature. Then, in the 20 questions, there were 3 types of questions. The first type of question was to arrange scrambled letters into correct word.

The first type of question consists of 5 questions. Then the second type of question consists of 5 questions. In the second type of question, the students were required to fill the blank space to appropriate letters based on vocabulary. Then for the third type of question, students were required to fill the missing letters in a vocabulary. The difference between the second and third types of questions lies in clues of vocabulary. In addition, in the third type of question there were pictures that helped students in doing the test. In the third type of question there were 10 questions. The time duration for this pre-test was 30 minutes. Pre-test used the paper and gave to fourth-grade students in May 05, 2023.

b. Post-test Sheet

Post-test was the test given after the researcher applied the Spelling Bee Game media, and the post-test measure the students' vocabulary achievement and comprehension. Post-test aimed to know the students' abilities after the media was given to the students. In this research, the researcher conducted two cycles of treatment. So, because there were two cycles, there were two post-tests. The first and second post-test, the researcher gave a test with the themes of vocabulary were music, beauty, sport, food, colors, cosmos, and nature.

Here, the researcher gave 20 questions to the students. Then in the 20 questions, there were 3 types of questions. The first type of question was to arrange scrambled letters into the correct word. The first type consists of 5

questions. Then the second type of question consists of 5 questions. In second type, students were required to fill the blank space with the correct letters based on vocabulary. Then for the third type of question, students were required to fill the missing letters in the vocabulary. The difference between the second and third types of questions lies in the clues. In addition, in the third type there were pictures that helped the students done the test. In the third type of question there were 10 questions. The time duration for post-test was 30 minutes for each cyle. Post-test used the paper.

2. Field-notes

The researcher made observations three times. The first observation, on December 10, 2022 at 08.00 a.m. On December 10, the researcher discussed with the substitute principal. The things discussed were related to whether there was English lesson in SDN 1 Jetak, the curriculum was used in fourth grade, how many students in the class, and how many boys and girls in the class. Then, the researcher made a second observation on March 10, 2023 at 07.30 a.m. in SDN 1 Jetak. In the second observation, the researcher submitted a permission letter, observed the condition of the school and the condition of the fourth-grade room, observed the teacher teaching English, observed enthusiastic students learning English, and asked the school for research time. The researcher made the third observation on May 03, 2023, at 08.00 a.m. in SDN 1 Jetak to ask for a more specific research time.

3. Questionnaire Sheet

The researcher gave a questionnaire to the fourth-grade students. The purpose of the questionnaire was to see how the fourth-grade students at SDN 1 Jetak responses while learning English vocabulary using the Spelling Bee Game. The researcher gave questionnaire to the fourth-grade students. For close-ended question consists of 8 questions with the answer was yes, sometimes, and no. Then open-ended questions consist of 7 questions. So, the total questions for fourth grade students were 15 questions.

In the close-ended questions, the questions were about whether they like English lesson, whether they enjoyed being taught using the Spelling Bee Game, whether the spelling was a difficult, whether they had ever spelled correct English words, whether they liked to play games, whether they had the desire to ask questions that they don't understand, whether they had difficulty when played the Spelling Bee Game, whether they liked the vocabulary lesson. Then for open-ended questions covering their knowledge of vocabulary, the difficulties they found in the Spelling Bee Game, whether their vocabulary improved or not, they prefer to be taught vocabulary using games or books, whether Spelling Bee Game was fun, and how they felt after being taught English using the Spelling Bee Game. Questionnaire for students carried out using paper. Then, the questionnaire for students had given after the all treatments. Time for questionnaire were 15 minutes for each student, 5 minutes for close-ended questions and 10 minutes for open-ended questions.

4. Handphone

The researcher used the handphone as a tool while played Spelling Bee Game. The researcher used eleven phones during the treatment.

5. Interview Sheet

The interview sheet for students' parents. The purpose of the interview was to know the parents' opinions about the English skill. Interview conducted with students' parents served as main data.

The interview for eleven parents. In this interview, the researcher provided three questions. The first question, whether the parents of the students had ever introduced English to their children. The second question, whether English was important for children and along with the reasons. The last question was whether the parents of students had ever included their children in English course and what were their reasons. Then, the maximum time for interview was 3 minutes for each parent.

F. Technique of Data Collection

Data was a piece of information that was required to create the valuable information. Individuals such as a researcher was very needed to obtain the data. Collecting data is a process whereby the researcher systematically searches and arrange their data to increase their understanding of data and enable them to presents what the researcher learn to others (Ary, Donald et al., 2010).

1. Test (Pre-test and Post-test)

In this research, the data collected by using qualitative and quantitative methods. The quantitative data collected by using a vocabulary test. The vocabulary test here include pre-test and also post-test. The pre-test had given to know the students' knowledge before the treatment. Then, the post-test had given to compare and also measured the differences of students' abilities before and after the treatment activities. Therefore, the pre-test had given at beginning before the treatment. The post-test had given at the end of each cycle. Then, the results of test used to measure the improvement of students' vocabulary mastery.

In pre-test, the researcher gave 20 questions to the students. The themes of vocabulary were about music, beauty, sport, food, colors, cosmos, and nature. Then, in the 20 questions, there were 3 types of questions. The first type of question was to arrange scrambled letters into correct word. The first type of question consists of 5 questions. Then the second type of question consists of 5 questions. In the second type of question, the students were required to fill the blank space to appropriate letters based on vocabulary. Then for the third type of question, students were required to fill the missing letters in a vocabulary. In the third type of question there were pictures that helped students in test. In the third type of question there were 10 questions. The time for pre-test was 30 minutes.

In this research, the researcher conducted two cycles of treatment. Because there were two cycles, there were two post-tests. The first post-test

and second post-test, the researcher gave a test with the themes of vocabulary were music, beauty, sport, food, colors, cosmos, and nature. The researcher also gave 20 questions to the students for each post-test. Then in the 20 questions, there were 3 types of questions. The first type of question was to arrange scrambled letters into the correct word. The first type consists of 5 questions. Then the second type of question consists of 5 questions. In second type, students were required to fill the blank space with the correct letters based on vocabulary. Then for the third type of question, students were required to fill the missing letters in the vocabulary. The difference between the second and third types of questions lies in the clues. In the third type of question there were 10 questions. The time for this post-test was 30 minutes for each cycle. Post-test used the paper.

2. Observation

The qualitative data collected by using observation. Observations made by researcher included class observations, the level of student activity during the treatment, observations when pre-test and post-test.

3. Questionnaire

The researcher gave a questionnaire to the fourth-grade students at the end of the treatment. The researcher aimed to know the students' responses toward applying Spelling Bee Game to teach vocabulary.

There were two types of questionnaire. For close-ended question consists of 8 questions with the answer was yes, sometimes, and no. Then open-ended questions consist of 7 questions. The total questions for students' questionnaire were 15 questions. Questionnaire for students used paper. Time for answered the questionnaire was 15 minutes for each student, 5 minutes for close-ended questions and 10 minutes for open-ended questions.

4. Interview

The researcher conducted interview with the parents of fourth grade students at SDN 1 Jetak. The interview for eleven respondents. In this interview, the researcher provided three questions. The interview conducted outside the school. The time for interview was 3 minutes for each respondent.

G. Control Variable

To maintain the quality of the test instrument, the researcher did:

1. The time duration of the pre-test and post-test was 30 minutes.
2. The questions and number of questions in pre-test was same for each student.
3. The questions and number of questions in pos-test was same for each student.
4. Eleven students took the test together.
5. When playing the Spelling Bee Game, all students used handphones prepared by the researcher.

6. The number of handphone prepared by the researcher to play the Spelling Bee Game was eleven handphones.
7. Each student played the Spelling Bee Game 4 times during the research.
8. The duration of playing the Spelling Bee Game was 14 minutes.
9. When playing the Spelling Bee Game, all students did it together, with the same duration, time and number of questions.
10. The questions and number of questions in the Spelling Bee Game were the same. The material for cycle I were music, beauty, sport, food, colors, cosmos, and nature.

H. Technique of Data Analysis

Technique of data analysis was a process of arranged and explained the data. Here, the researcher organized the data collected into the explanations. In this research, the data analyzed both quantitatively and qualitatively. The quantitative data gathered from students' tests, and the qualitative data gathered from observation, questionnaires, and interview.

1. Data Analysis of Quantitative Data

The quantitative data in this research came from the test results of the students. To determine if the reaching-learning process was successful or not, the researcher compared the pre-test and post-test results to determine the students' test scores. To determine each student's average test score, the mean score used to assess both test results. The students claimed to be successful if they reached the standards of completeness ($75 \geq$). The students' score

calculated using the formula by Nurgiyantoro (Abdurahman & ElyarRatna, 2003).

$$N = \frac{sm}{s_i} x S_{\max}$$

Detail:

N = Mastery level

sm = Score obtained by students

s_i = Score to be achieved in a test

S_{\max} = Scale used

The average of students' vocabulary calculated by finding the average with the arithmetic mean

$$M = \frac{\sum Fx}{N}$$

Detail:

M = Mean

$\sum Fx$ = The result of multiplying the frequency with the score obtained

N = Number of students

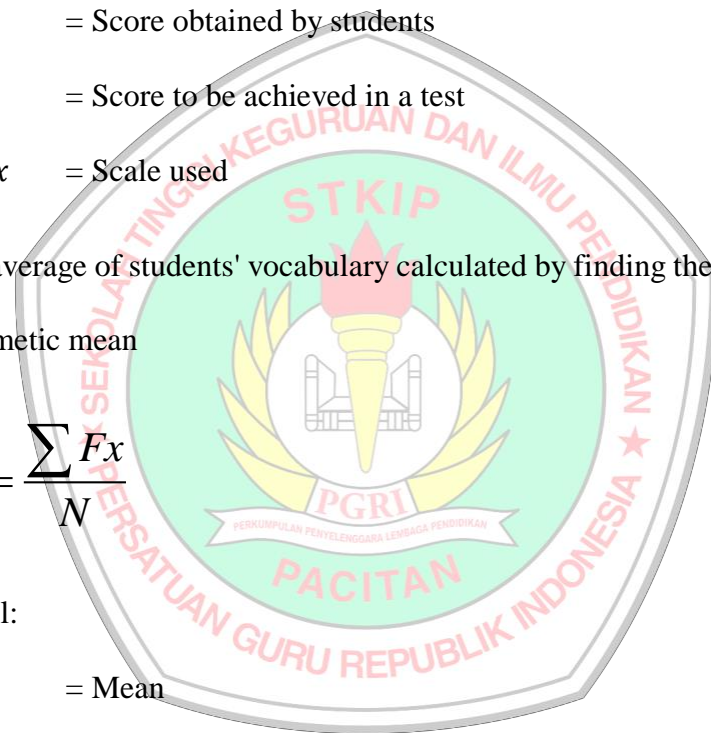


Table 3. 2 The Result of Treatment

No	Name	Cycle I		Cycle II	
		Day 1	Day 2	Day 1	Day 2
1					
2					
	High Score				
	Low Score				

Table 3. 3 The Form of Quantitative Data

No	Name	Pre-Test Score	Post-Test Score Cycle I	Post-Test Score Cycle II
1				
2				
3				
	Amount			
	Average			
	High Score			
	Low Score			

2. Data Analysis of Qualitative Data

Observation, questionnaires and interviews' results were the qualitative data in this research. The researcher took the questionnaire in the end of treatment and took the observation while teaching-learning process. Then the researcher took the interview after the treatment. Furthermore, the reason of researcher gave questionnaire was to know the students' responses after the treatment in learning vocabulary by using Spelling Bee game. Besides the questionnaire, there were interview from student's parents that aimed to know the parents' strategies to develop English skill. Then Ary, Donald (2010) also stated that in analyzing the qualitative data, there are three stages namely organizing and familiarizing, then coding and reducing, after that interpreting and also representing to other.

a. Organizing and Familiarizing the Data

The first stage in analyzing qualitative data was familiarization and organization. The researcher became familiar with the data through read notes, viewed and reviewed videotapes. In this research, the researcher focused on field notes, questionnaire, and the result of interview.

b. Coding and Reducing the Data

After familiarizing the data, the researcher began coding and reducing process. Coding was analogous to get ready for a rummage sale. The researcher sorted the data into categories; students and parents. In this coding, the researcher read and reread the data and sort them by looking for

the data needed. Then the researcher initially went through the data and identify each question in every questionnaire and interview.

c. Interpreting and Representing to Other

Interpreting involved reflecting the words and a stracting important understanding from them. Interpretation in this research, the researcher brought out the meaning and providing the explanation from all questionnaires and interviews' results because interpreting qualitative data there were no set rules to follow. The researcher confirmed what the researcher known to support the data and known the important things that the researcher did not know but should had known. Representation involved how the data were presented. The researcher reported the data by using descriptive detail.

