CHAPTER III

RESEARCH METHODOLOGY

The writer discusses the research methodology was used for this study in this chapter. Research methodology was concerned with how a specific method is used to answer the research questions that were put forth in the first chapter. As a result, this chapter discusses a number of topics related to the stages involved in carrying out the present study, including the research design, the research subject, the data collecting and instrumentation, and the data analysis.

A. Research Design

The writer was made efforts to obtain data in this study by using a research approach. The research approach that the writer was used Classroom Action Research. According to Burn (2010, p. 2) classroom Action Research is an activity that is carried out immediately in the application of a technique created in a research. The goal of this study is to help a writer solve challenges that arise throughout the course of a learning process. It signifies that Classroom Action Research is a teaching learning process method employed by the writer to gather data and address problems from students in the teaching learning process.

Further, Creswell (2012, p. 577) mention that a collaborator or instructor is necessary to directly participate in giving learning during the Classroom Action Research process. The writer must also be more imaginative in developing or discovering the best strategy to tackle

challenges encountered during the learning process. It indicates that Classroom Action Research is a method for improving the teacher's capacity in practise to be more creative with action to address difficulties from the students' teaching learning process. McNiff and Whitehead (2006, p. 7) state that classroom action research can be a powerful and liberating form of professional enquiry because it means that practitioners themselves investigate their own practice as they find ways of living more fully in the direction of their educational values.

In the field of education, Classroom Action Research was often used by many teachers to assist them in practicing teaching strategies in the classroom, as well as to see how effective these strategies are in developing teaching and learning activities and how they affect students. Somekh (2006, p. 7) states that action research is carried out through collaboration between writers and subjects, whose roles and relationships are flexible enough to optimize mutual support and differentiated enough to allow each person to make appropriate contributions within existing boundaries.

The writer used Classroom Action Research to enhance both classroom learning activities and the students' pronounciation skills. The writer used Classroom Action Research to improve classroom learning activities and students' pronunciation skills. The writer choose this approach because the writer seen a problem at SMKN 1 Kelam Permai, especially in eleventh grade students, who had very little understanding

of pronunciation acquisition, could not pronounce words correctly, had difficulty memorizing sounds, and were passive in class.

Further, Daniel (2010, p. 10) states that classroom action research is a systematic process of solving educational problems and making improvements. That means Classroom Action Research is useful to help them in practicing teaching strategies in the classroom, as well as to see how effective these strategies are in developing teaching and learning activities and how they affect students. The writer's choice to use this approach was made in order to study issues that arise in the classroom or are particularly pertinent to students and find effective solutions. Next, using Classroom Action Research, writers will employ tongue twister as their primary method of problem solving in order to get the desired outcomes from their investigation. Further, Burns (cited in Al-Obyadi et. al, 2021, p. 232) states that classroom action research on the part of an english language teacher has been seen as a way to bridge the gap among academicians, writers, and teachers and to encourage teachers to adopt an investigative stance towards their own classroom practices

In this study, the writer used classroom action research design that is often and has been popularly used in previous studies. The following is figure of from Kemmis, McTaggart & Nixon (2014, p. 19) model of classroom action research. The writer was used classroom action research designed by Kemmis, McTaggart & Nixon's model, the model which consists of four steps, the following is planning stage, acting stage,

observing stage, and reflecting stage. Problem solving in this research is done through a series of cycles.

Cyclical Action Research model based on Kemmis, McTaggart & Nixon (2014, p. 19). Can be seen below::
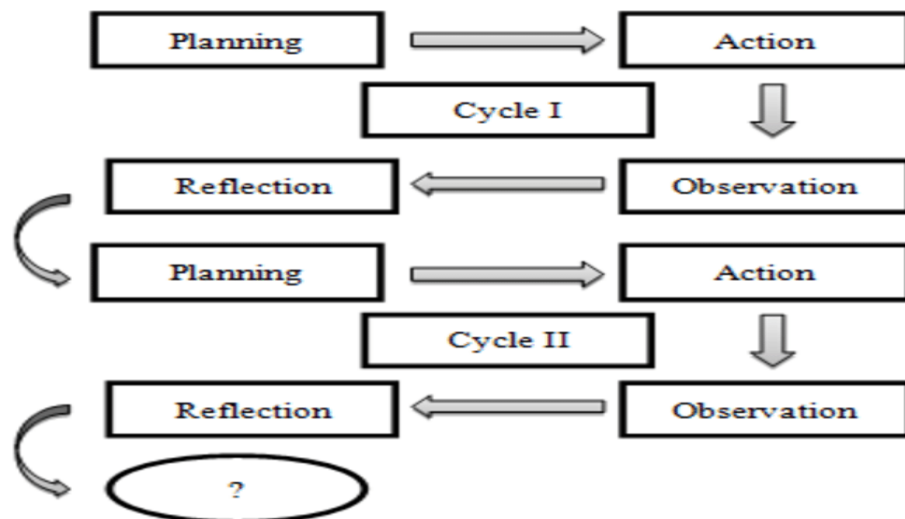

Figure 3.1 Classroom Action Research Model

Kemmis, McTaggart & Nixon (2014, p. 19) mention the four steps in doing classroom action research that are planning stage, acting stage, observing stage, and reflecting stage.

1. Cycle 1

The things that the writer was did in cycle 1 are as follows:

a) Planning

Planning is the first stage of treatment and preparation before conducting research. Writers prepare materials used in research. The following is the specification of the first planning cycle is to conduct the cycle at the meeting. Then, writer manage the learning process about students' pronunciation according to the lesson plan that was

implemented. Furthermore, writer also conducting a pre-test to determine the basic ability of students. Writer also prepare materials that was used to improve students' ability in learning according to the syllabus. Then, practicing the tongue twister technique to help students improve their skills. The writer also prepares instruments to collect data, such as attendance, daily notes, observations, interview sheets, and student's test.

Writer prepared materials, strategies in the teaching-learning process and everything needed in the teaching-learning process. The preparations made include lesson plans, materials, and data collection tools. Writer also prepared observation checklist tables, and written tests as data collection tools, which were compiled based on the results of observations and reflection notes on the previous teaching and learning process.

b) Acting

Acting, is a step that discusses the methods and activities carried out by writers. Writers try to measure the improvement of students' pronunciation. The writer also gave treatment to students on how to improve their pronunciation by giving assignments, evaluating errors, and summarizing the material. The step in acting is related to determining the data to be collected as well as the method of collection. This relates to instruments and data collection

techniques in the form of research cycles, lesson plans, observation and assessment sheets, and documentation tools.

The action here is the realization of planning to apply the right strategy that will be used in the classroom. In the implementation of the action the writer was collaborate with the teacher in guiding the teaching and learning process. In the implementation of the action the writer will carry out several activities, such as implementing tongue twister which was used in the classroom, implementing lesson plans, teaching students about the material that has been prepared and also participating in the teaching and learning process.

c) Observing

Observing In the observation stage, writer observed all activities during the research. Students' responses, attitudes, and changes in situations were the points observed by the writer. Every behavior they show when explained, did the tasks, and conducting discussions is important information to find out their difficulties.

d) Reflecting

Reflecting is the activity of reviewing the action research that has been carried out. This stage is known as the last step in a class action research. In this case, it involves the actions of researchers and collaborators to provide a review and comparison and determine the results that have been obtained after carrying out the process of implementing the previous cycle. This is because the results of the

reflection study can be used as a reference and guide in further research. After the results of the study are obtained, the researcher and collaborator reflect so that if they find deficiencies, they will prepare the implementation for the next cycle. This is to close the shortcomings in the previous cycle that were found.

Referring to the explanation above, the researcher was collaborate again to provide a review and determine the shortcomings in the first cycle and consider the next implementation actions that was carried out in the second cycle.

B. **The Subject of the Study**

The participants in this study is conduct by 27 students from class XI A of accounting class in SMK Negeri 1 Kelam Permai, including 10 men and 17 females. The writer exclusively selects class XI A in order to restrict data collection and get data based on the students' pronunciation skills currently facing challenges during pronunciation learning and their struggles to overcome those challenges. As a result, by including tongue twisters into the teaching and learning process, the writer was assisted the students in developing their pronounciation abilities.

C. **Data collection technique and instrumentation**

In this part the writer was describe the data collection techniques and instrumentation of data collection as follows:

1. **Data Collection Technique**

     In a research, data collection is something that must be done by the writer to get significant data. According to Creswell (2014, p. 239) data collection techniques are a strategy carried out by the writer to obtain data in research. In this research, the writer collected data using several method as follows:

a) Observation

     In this research observation is the one of the most important technique in collecting the data to get deep insights about how the students experience, feel and interpret the class situation. According to Daniel R. (2010, p. 38) observation is one of the more popular methods of data collection for all research studies. The writer was observe the behavior of the students and observes the teaching and learning process in the classroom to find the problems that the students faced and to see the improvement of the students' ability after using the technique that the writer and the teacher applied.

     In conducting this research the writer was used participant observation in this observation to watch the teaching learning process in the classroom. Further, Kumar (2011, p. 134) states that defined participant observation as "direct observation in which writers join in the actions of someone who will observe with or without them understanding that they are being observed". The writer was watched what others do, listen to what they say, and participate in their activities

during participant observation. This observation is used to identify the learning environment and student behaviour when the activity is conducted. In this observation, the writer was helped the instructor in the classroom when teaching English.

The writer was observed student behavior during teaching and learning activities in this observation. The writer was monitored students to see if the use of tongue twisters can increase students' learning activities. The writer was monitored students during the teaching and learning process before and after using tongue twisters, making comparisons between using tongue twisters and not using tongue twisters.

b) Interview

The interview technique is a component of the transcribing process of communication between two individuals to obtain some of their points of view, after which the primary point might be the notion of major data. Interviews are another typical approach for gathering information from individuals. Monette et. al, in Kumar (2011, p. 144) mention that the interview was conducted by involving the interviewer reading questions to respondents and recording answers from respondents. In addition, Burns in Kumar (2011, p. 137) said that the interview is a verbal exchange, usually done face-to-face although it can be done virtually, where the interviewer tries to obtain information, beliefs or opinions from others.

Based on the statement above, the writer was conducted interviews with students and class teachers. The writer was asked the teacher about several things related to the development of students' previous learning, namely the students' pronunciation skills that the writer was improved. then the writer was also asked several students about the use of tongue twister in learning to improve students' pronunciation, as well as how they feel when learning to pronounce using tongue twister, and finally, the writer was asked if there is progress in their pronunciation skills through tongue twister. The interview was conducted with a guide, but the writer was asked additional questions to explore further information from the answers given. The interview guide is the data collection tool used in this approach.

Several techniques was used by the writer to acquire interview data. That is, the first step is to plan the question you want to ask the topic, and the second step is for the writer to create a transcript of the interview findings. As a result, the interview was only be conducted to analyse the scenario in which the English instructor had issues teaching students' pronunciation and certain students about their challenges in learning to write.

In this study, the writer was employed a purposive sampling strategy in interviews, with the sample set by the writer. Cohen (2018, p. 218) mention that purposive sampling is used to determine someone

to be a sample or not based on certain objectives, for example by professional considerations held by writer in their efforts to obtain information relevant to the research objectives. The writer only interviews a few students in this interview. The writer chose students to provide examples depending on their grades. The writer was interviewed two students who had excellent score, two students who received middling score, and two students who received bad score. Thus, the number of samples selected amounted to sixth people from each student having the level of scores they obtained, namely high, medium and low. According to Kumar (2011, p. 143) there are two types of interviews, open interview and close interview that are often used by the writer as follows:

1) Open interview

In an open interview, the responder expresses his thoughts, which might be extensive or brief. The writer was write down or summarise the respondent's response. While interviewing the topic for this study, the writer was conducted an open interview. The writer employs an open interview strategy in order to gather information and learn more about students' reactions to the usage of tongue twister in boosting students' pronunciation abilities.

c) Measurements

To take measurements, the writer was provided a test to students to determine the improvement in their pronunciation skill. The exam is used

to obtain quantitative information in the form of student results. Brown (2016, p. 384) state that test is a method used to measure a person's ability or knowledge in a particular domain. It is a set of techniques, procedures, and items which is a kind of instrument that requires performance or activity on the part of the test taker or from the examiner. The test employed in this study was a pronunciation ability test for students. A test is an experiment that is carried out to discover whether or not particular learning outcomes exist for students. The test is a stimulus presented to someone in order to elicit responses that may be used to determine scores.

This test is a test of students' pronunciation and understanding of the sounds of words spoken and how many students can remember the material provided by the writer. In this test, the writer was prepared sentences in the form of reading activities that was adjusted to the lesson plan.

In the first step, the writer was provided material on examples of giving and asking for opinions. The second step, the writer wias asked students to practice with their friends through a small conversation about the act of giving and asking for opinions that they have summarized and prepared. Step three, the writer was asked students who are ready to practice with their friends in front of the class. The fourth step, the writer will observe how the students' process in pronouncing each word, namely

the writer was assessed the clarity, fluency, accuracy, intonation and emphasis in the students' pronunciation.

In this study, the test was conducted twice, namely in cycle 1, before and after the application of the tongue twister technique in the teaching and learning process. The writer uses a pronunciation rubric to obtain students' pronunciation scores. In this study, the writer can analyze the development and improvement of students' abilities by using a scale described as follows:

Table 3.1 Scoring Rubric of Pronunciation Test

Components of pronunciation	Score	Indicator
Intelligibility	4	Produces clear sound in every word (15-20 words).
	3	Produces a very few unclear sound in certain word (10-15).
	2	Produces some unclear sound in some words (5-10 words).
	1	Most of the words are produced unclearly (1-5 words).
Fluency	4	Pronounce the word fluently without hesitation (15-20 words).
	3	Pronounces the word fluently, but there is a slight hesitation (10-15 words).
	2	Pauses on some words that show hesitation (5-10 words).
	1	Too much cause on most of the words showing hesitation (1-5 words).
Accuracy	4	Pronounces words accurately and does not cause misunderstanding (15-20 words).

	3	Pronounces almost all words accurately and only a few words are pronounced inaccurately. Does not cause misunderstanding (10-15 words).
	2	Pronounced some of the words inaccurately causing little misunderstanding (5-10 words).
	1	Most of the words are pronounced in accurately causing misunderstanding (1-5 words).
Intonation	4	Produces correct intonation tune in the whole of words (15-20 words).
	3	Produces incorrect intonation tune in a few of words (10-15 words).
	2	Produces much incorrect intonation tune in all of the words (5-10 words).
	1	Almost all of the sentences in the words are said with incorrect intonation tune (1-5 words).
Stress	4	Uses good stress in each word and no error (15-20 words).
	3	Uses good stress but misuses in a few word that causes few error (10-15 words).
	2	Uses much incorrect stress that causes some error (5-10 words).
	1	Uses stress incorrectly in most of the words that causes definitely much error (1-5 words).

Adapted from Djiwandono (cited in Repoiain, 2008, p. 83)

With the scoring rubric above, it is easy to see the level of ability produced by students. After that there will also be a way to calculate the score obtained by the student. The score level section below will explain in full how the criteria for student pronunciation score levels. This section is used by the author to see the student's score level:

Table 3.2 Level of score

Final score	Category
85 – 100	Excellent
75-84	Good
65-74	Frail
≥65	Poor

Adapted from Djiwandono (cited in Repoiain, 2008: p. 123)

The scoring rubric section above explains in full the scoring criteria of the pronunciation exam. It was used by the writer to account for the students' scores using the formula below:

$$X = \frac{\Sigma S}{Smax.} \, 100$$

    X   : The Students' Score

    ΣS   : The Total of Students' Point

    Smax   : The Maximum of Students' Score (20)

And then, in class percentages that pass the mastery of the Minimum Completeness Criteria (KKM) 70 (seventy) using the formulate of Sudijono cited in Alawi (2011, p. 40) as follow:

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

P : The class percentages

F : The number of students who passed the test

N: The total of students who followed the test (35)

The writer can calculate the proportion of students who met the Minimal Completeness Criteria using the formula above (KKM). Also, it was decided if the procedure in cycle 1 was halted or continued.

d) Documentation

Documentation is the process of collecting, selecting, processing, and compiling to obtain information or data. According to Cresswell (2008, p. 232), documentation consist of public and private records obtain about a site or participant in research, and they can include newspapers, minutes of meetings, personal journal, and letters. This method will use to know the condition of students and teachers, profile, and location of the school. In this study, the writer will collect data documentation through video recording and photos as evidence that this research was actually conducted and actually happened.

2. Instrumentation

The following instruments will be considered in this research an observation checklist, interview instructions, a test, and documentation. They are as follows:

a) Observation checklist

The goal of data collection is observation since it is regarded as the most appropriate strategy for gathering information on the process of teaching and learning in Classroom Action Research. This type of observation involves the use of a coding system or checklist that is prepared before the lesson begins (Burn, 2010, p. 62). Completeness of opinion, observation checklist is a worksheet that serves to observe and measure the level of success or achievement of learning objectives in teaching and learning activities in the classroom. Observation checklist is used to determine the extent of students' abilities before and after applying tongue twister. The use of observation means an action that occurs in the classroom during the teaching and learning process.

b) Field note

Field notes are an instrument that is often used to collect data by capturing the situation that is happening in the research field by writing the situation on paper, with the findings made in the form of qualitative data. Leavy (2017, p. 136) explains that field notes are written notes used in observation activities which include notes on activities, events, or conditions during the research, as well as the continuity of the research.

c) Interview guideline

In this research interview is a way in getting something information about something especially technique learning in a school. Further Mack et. al, (2005, p. 43) states that interview guidelines vary from very detailed to

relatively loose, but are essentially to help the interviewer know what to ask, in what order, how to ask the questions, and how to follow up. This means that an interview guideline is a list of each question or main topic as a guide for the interviewer. If the questionnaire participants have answered the initial sub-questions then the interviewer already knows what to ask. The interview guideline will be used to find out students' responses to the learning that has been done and to find out if there are any obstacles in leaning.

d) Students test

The test is used as a tool to collect data in the form of student scores, so this test was used a test sheet as a real tool used in calculating the score results from the test conducted. Brown (2016, p. 384) explains that a test is a method used to measure a person's ability or knowledge in a particular domain. From a test, the writer was got a quantitative score that can be analyzed. Tests always occur at identifiable moments in the curriculum when learners master all their abilities to deliver peak performance, knowing that their responses are being measured and evaluated. Thus, a test is a tool or means used to measure student achievement.

e) Video

Video is a tool used by writers to see how students process in the classroom. Video is an action where someone records an event using an electronic object, namely a camera, by using video everything can be seen,

or heard and even proven to be real that it has happened and is true, and to fulfill the requirements in a study.

D. Data Analysis

The strategies used to acquire data in this study are qualitative and quantitative data. Observation, interview guidelines, field notes, and documentation will be used to acquire qualitative data. The writer will employ pronunciation exams to obtain student scores in order to improve students' pronunciation abilities when gathering quantitative data. Following the collection of data, the data will be examined using both qualitative and quantitative methods.

1. Qualitative Data

Referring to Burns (2010, p. 106), qualitative data is data that is studied without the use of numbers, such as journal/diary entries, interviews, recordings of class interactions, and observation sheets. The writer employs the qualitative approach proposed by Burns (2010, pp. 104-105), and the process of qualitative data analysis is divided into five steps.

a) Assembling the data

The early phase in data analysis is assembling the data. At this phase, the writer will compile all of the information gathered from the observation, interview, field notes, and documentation. As a result, the writer will go through all of the data, rewrite the questions, and begin to look for patterns or ideas to answer the questions.

b) Coding the Data

   The writer will group the material specifically in this step. To make it less difficult to analyse the data that was collected, the writer will divide it into two categories: qualitative data and quantitative data. The data will be grouped by the writer based on where the data source was received it.

c) Comparing the Data

   In this phase, the writer took steps to understand each piece of information that will be obtained. The writer was attempted to understand the data by categorising it, coding it, and comparing it. To complete the study findings, the writer was evaluated data numerous times to ask questions, re-understand data, and develop explanations.

d) Reporting the Outcomes

   In this step, the writer was described the background of the study, expound on the findings, and organise the research study.

2. Quantitative Data

   The quantitative data obtained is structured and standardized for examination. This is done to compare students' pronunciation skills before and after the action by giving tests to students to determine the level of students' abilities. In this study, quantitative data was obtained from the students' pronunciation test results. From the test results, the writer can find out the improvement of students' pronunciation ability which is marked by an increase in students' scores.

Further, Burns (2010, p. 118) states that quantitative data analysis is presenting data in the form of numbers. The form of presenting quantitative data is in the form of observations and numbers. In this study, the writers will analyze student scores from the test to obtain quantitative data. After the test is conducted, the writer was determine the level of pronunciation ability in this school, the level of pronunciation ability is determined based on table 3.2. The level of score is obtained from the overall average score of students after the learning process, thus the writer can determine the level of pronunciation ability of each student. For example, if student A gets a score of 75, it means that the student's pronunciation level is classified as good, but if the score is not in accordance with the KKM but there is still an improvement, it can be said that the student has improved in his pronunciation ability. The level of students' pronunciation skills will be obtained from the assessment rubric which is used as a guide in assessing students' pronunciation skills.

3. Criteria Of Success

The indicator of success in this Classroom Action Research is when students' pronunciation skills improve. In this study, the writer needs several criteria to determine whether a cycle is successful or not. These success criteria are used as guidelines for the writer to determine whether this cycle is successful or not and whether the next cycle needs to be done. The success criteria in this study are described in the table below:

Table 3.3 Criteria of Success

Aspect	Description
Observation	If 80% of students are participate actively, enthusiastically, and enjoy during the lesson, the cycle considered to be successful
Test	If 70% of students' scores are increase, the cycle considered to be successful

In this research, a cycle is said to be successful if 70% of students are able to obtain a minimum score in good criteria with a range of scores between 60 to 70 then the cycle is considered successful. Meanwhile, other success criteria will also be seen from observation sheets, interviews, field notes, and documentation. The success criteria in this study was also be seen in students who are active, motivated, and enthusiastic in the teaching and learning process. If 70% or more students give a positive response to learning by using tongue twister, then the cycle can be said to be successful and the writer does not need to do the next cycle. Writers hope that by using this technique students can get scores above the average. The achievement indicators carried out by writers are that students can pronounce the sounds of the words they say and pronounce the sounds clearly and correctly with the Tongue Twister Technique.