

### **CHAPTER III**

### **RESEARCH METHODOLOGY**

In this chapter explain about, the researcher discusses research design, the subject of the study, data collection technique and instrument and data analysis.

#### **A. Research Design**

This research design in this study is classroom action research. Research design is needed because it facilitates the smooth sailing of the various research operations, thereby making research as efficient as possible yielding maximal information with minimal expenditure of effort, time money (Kothari, 2004 : 32). The researcher uses picture as a media to improve the students' speaking skill. It means that classroom action research is a way for instructors or teachers to discover what works best in their classroom situation, thus allowing informed decisions about teaching. Action research is designed to enhance and improve current practice within a specific classroom, school, or district (Lodico, Spaulding, & Voegtler, 2010 : 40).

This research is a Classroom Action Research (CAR) program that is intended to contribute to improving the knowledge, styles, techniques and, methods of teachers in the classroom, and to provide insight into the behavior of teachers and students in applying communication speaking.

This research was conducted in first grade at SMPN 01 Binjai Hulu. It uses an action research design to answer a research problem. Also, the main objective of this research is to improve the quality of teaching and learning in speaking class. This study tries to describe the implementation of Communicative Speaking to provide better ways for teachers to teach speaking. Action research is a systematic approach to investigation that enables people to find effective solutions to problems they confront in their everyday live (Stringer, 2007 : 1).

This CAR used a collaborative research design. The researcher and his collaborative classroom teacher immediately conduct research. There are three words that make up this meaning, namely:

1. Research is an activity of observing objects by using methods and methodologies to obtain data or information that is useful for improving the quality of something and what is needed for researchers.
2. Action is a deliberate movement activity with a specific purpose.
3. Class in this case is not bound by the term classroom, but in a more specific sense Arikunto (as cited in Daely, Astarini, & Husnussalam, 2019 : 3).

To overcome the problems found in the classroom in teaching speaking, researcher apply Communicative Speaking during the teaching and learning process. Classroom Action Research starts from the serious attention of a teacher to the success of his own learning,

student learning progress, student behavior, environment, learning process for the purpose of planning, implementing, and evaluating improvements Borgia ( as cited in Rodli, & Desiana, 2013 : 2).

Researcher acts as practitioners who teach students with Communicative Speaking to practice speaking English. To get data about improving students' speaking skills, researcher used data from student test results in two cycles. Furthermore, to observe students' response data to the learning process using Communicative speaking, researcher obtain data using interviews. In action research, the researcher is concerned with using a systematic process in solving educational problems and making improvements (Tomal, 2010 : 8).

Classroom Action Research is a method of finding out what works best in your classroom, so that you can improve student learning. Classroom Action Research is an action research which is occurred in order to improve the quality of teaching and learning process Suhardjono (as cited in Erfiani, 2017 : 2). There are many ways to improve knowledge about teaching. Many teachers practice personal reflection on teaching, others conduct formal empirical studies on teaching and learning. Classroom Action Research is a method use researcher to solve problems students experience when learning to speak English. One of the purposes of conducting CAR is to identify problems or issues that the participants, who mainly include students and teacher, are recognized as problems which are needed to be solved (Burns, 2009 : 2).

Classroom Action Research is more systematic than personal reflection but it is more informal and personal than formal educational research. Classroom Action Research will help the teacher discover what works best for the students' classroom situation. It is a powerful integration of teaching and scholarship that provides a solid basis for instructional decisions.

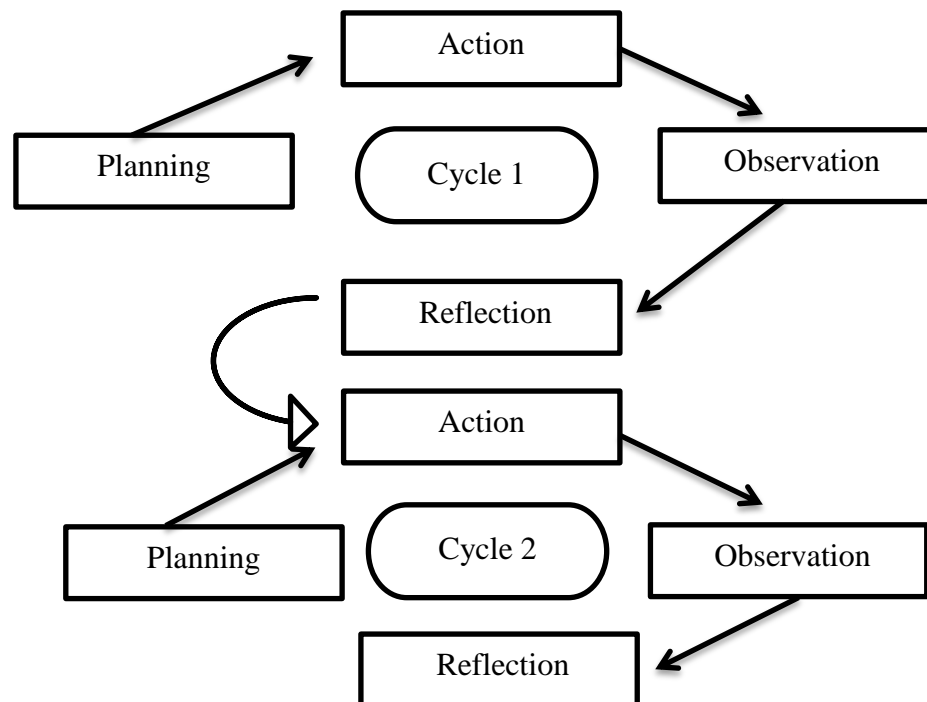
Classroom Action Research is easily mastered techniques provide insights into teaching that result in continual improvement. Classroom Action Research for English instruction is aimed at developing innovative instructional strategy that can help enhance the success in students' learning English. English teachers believe that every student can succeed in learning English if appropriate learning strategy is provided. When students fail in learning English, the blame is on the teachers who do not provide appropriate help to the students.

When the students fail in learning English, it must be because the teachers have failed in helping them. And this is the teachers' problem. Identifying classroom problems and trying to solve the problems can be done through the process of Classroom Action Research. Classroom Action Research is a research method that evaluates the current practice to improve the quality of the practice. It is the job of professional teachers to identify their classroom problems and to try to solve the problems.

Classroom action research is a method of finding out what works best in your classrooms that you could improve students learning. In short, classroom action research (CAR) was used when there was a specific educational problem to solve or improve teaching and learning process to enhance the students' mastery to the lesson which can be done by a teacher with his or her colleague, a researcher, or any interested parties.

In conducting the classroom action research, the researcher used Kemmis & Mc Taggart (as cited in Abraham, et al. 2018 : 2) in which each cycle consists of four steps: plan of action, implanting of action, observing and evaluation analysis and reflection. The main steps were preceded by reconnaissance (or preliminary study), analysis and identification of problem as shown in the figure 3.1.

Classroom Action Research is done by teachers in their classrooms. Classroom Action Research is typically involves the use of qualitative modes of enquiry and data collection by teacher (often with help from academic partners) with a view to teacher making judgments about how to improve their own practices (Kemmis & Taggart, 2014 : 11). As English teachers, they have to solve their classroom problems or improve the quality of their classroom practices to result in better English achievement of their students. As researcher, they have to produce an innovative classroom strategy that contributes to the improvement of English teaching-learning practices in schools of the same level.



**Figure 3.1. The Action Research Procedures (adapted from Kemmis & Taggart, 2014 : 11)**

Information :

### 1. Planning

Planning is an early stage process and has a goal to be achieved. Planning is the first step to conduct treatment or after making sure about the problem of the research (Burns, 2009 : 8). He explains that this step explores and explains the word what, why, when, and where a researcher does the research. In this activity, the researcher formulates some procedural acts on how to improve student's reading comprehension in narrative text.

The procedures are an investigation of the problems, the researcher should find the appropriate ways in solving the problem.

The researcher makes a lesson plan and the instruments for collecting the data such as diary notes, observation sheets, post-test, and pre-tests. The researcher made a lesson plan as guiding to teach students in the first cycle. The researcher made an observation guide to observe the students during the teaching-learning process. The researcher prepared the instruments test to check students' understanding.

The researcher prepares the material, strategy in the teaching-learning process, and everything that will be needed in the teaching-learning process. The preparations include the lesson plans, the materials, and the tools of data collecting. The researcher also prepares the observation checklist table, field note, and written test as a tool collecting the data, they are formulated based on observation and reflection note of the previous teaching and learning process.

## 2. Action

Action is an activity carried out by someone either directly or indirectly. The plan is a carefully considered one which involves some deliberate interventions into your teaching situation that you put into action over an agreed period (Burns, 2010 : 8). The action was the implementation of planning which had been prepared by the researcher. Acting as the second step to implementing the plan. The researcher applies the lesson plan in the teaching process. The step

which is done by the researcher in the teaching process is based on the lesson plan. In particular, in the teaching process, the researcher uses one by one student to teach speaking in the class. In this step, the researcher takes action based on the previous plan. The action was carried out in two cycles. All activities in a photo, written in a diary the teaching process. The data achieved from this stage were very important to the implementation in the next action.

### 3. Observation

Observation is an activity carried out by researcher during the research. In observations, the researcher observes the conditions that occur during the learning process. The researcher observes the situation especially the students' attitude during the teaching process from the beginning up to the end.

### 4. Reflection

Reflecting was the last procedure of classroom action research. At this point, you reflect on, evaluate and describe the effect of the action to make sense of what has happened and to understand the issue you have explored more. In this phase, the researcher and her collaborator analyzed, discussed, and evaluated the teaching and learning process based on the data that have been collected from the observation. Therefore, the researcher was able to prepare things to develop and improved the teaching-learning



process for the next cycle if the cycle that would be done was not successful yet.

The researcher explains that this phase is carried out after the teacher and the researcher have finished the action step. Then realize and find about the problem appear when the plan is implemented. In this case, the researcher still might have found some problems and the criteria that decide is not reach yet. Consequently, the researcher and the teacher have to prepare and arrange for the next cycle. The teacher and the researcher arrange the media used in the next cycle to make students' interest in the teaching-learning process. Reflection is carried out by interviewing students, from student attendance and assignments related to their responses to actions. Reflection results indicate whether the action was successful or not to improve students' speaking skills. Actions that succeed will be reapplied in the next cycle, but those that do not succeed will be modified in the next cycle to solve the existing problem. The researcher and the teacher reflect and evaluate the action in order to know how effective the teaching process that has been done. After giving evaluation, the researcher and the teacher revise the planning in the first cycle to improve students' speaking skill. The result of the discussion will use in the next cycle.

## **B. The Subject Of The Study**

The subject of this research were students of SMPN 1 Binjai Hulu consist of four classes of first A, B, C and D . The researcher choose and selected one class, namely first A class. While the number of the first A grade class consists of nine females, eight males with the total number were seventeen students. Because based on preliminary observations, first grade students have less speaking than other classes, especially in communicating using English, which is difficult to speak English given by the teacher, because they are too long sentences to say, they have limited vocabulary, they are hard to find ideas and they are also difficult to express opinions.

## **C. Data Collection Technique And Instrumentation**

### **1. Data Collection Techniques**

The technique of data collection is a process of gathering the necessary data in the research with the data collection and then it is used to test the hypotheses that have been formulated. Data collection technique is the most strategic step in research, because the main purpose of research is to obtain data without knowing the data collection techniques, the researcher will not get data that meets the data standards set (Sugiyono, 2019 : 224).

Data collection techniques can be carried out in four kinds of data collection techniques, namely observation, interview, documentation, and combination or triangulation. To collect the data, the writer uses

some techniques in order to make it easier in analysis the data such as observation, documentation, test and interview (Sugiyono, 2019 : 225).

There are:

a. Observation

Observation is an activity carried out by researcher to obtain information about the research to be carried out. The observation conducted using the observation sheet. Observation sheet was used to know the situation in classroom during the implementation. Observation sheet was also used to gain feedback and comment from the observers toward the teaching learning process. The observers were the English teacher of first grade A class and an outside observer. In this section, the observation had done by collaborator and researcher during teaching and learning process in this research. The collaborator observed every activity that happened in the class and monitoring 17 students. The result of observation would be discussed into observation checklist and field note. The observation was conducted to the first A grade to help the researcher in knowing the students' improvement.

Observation is an activity carried out by the researcher to obtain information on the research to be conducted. Therefore, before conducting research, researcher have prepared in advance a blank or observation sheet containing behaviors that can be observed by researcher, which were previously designed or

arranged in a grid. Researcher can ask for help from others as observers to be able to assist researcher in making observations. The researcher observes the situation especially the students' attitude during the teaching process from the beginning up to the end.

b. Test

Test is an assessment of an object to be assessed. A test designed to identify individuals with above-average ability to quickly and accurately recognize typographical errors in a document may have excellent validity and score reliability when it is used to predict a potential employee's ability to quickly and accurately recognize typographical errors in a book manuscript. In this research, researcher use only one test in one meeting. Researcher provide simple pictures that are easy make students understand, after students do a speaking test in front of the class, researcher give a score on the speaking rubric. A test is a method of measuring person's ability or knowledge in a give domain Brown (as cited in Bafadal, M.F., & Muslimin, M. 2020 : 35).

In this research, researcher used an oral test to find out the improvement in speaking English using pictures. The oral test is a test whose implementation is carried out by holding a question and answer directly between educators and students. This test is done to

see the changes in students whether there is an increase from before or not.

c. Interview

An interview is an activity carried out by a person to obtain information. Interviews are demanding tasks in the sense that they require from the interview some preparation in the form of research, the selection of relevant questions and the prior analysis of native speaker interviews so as to properly evaluate both the questions and the elicited information Dakowska (as cited in Aleksandrak, 2011 : 6). Interviews are a way that many people often get information from other people. This interview was conducted face to face between the teacher and students to get responses from students. The interview is used as a data collection technique if the researcher wants to conduct a preliminary study to find problems that need to be investigated, and also to know things from respondents in more depth and the number of respondents is small or few (Sugiyono, 2019 : 231). This interview was conducted face to face between the teacher and students to get responses from students. In this research, researcher using interviews to has respondents and feedback such as face to face.

In this method researcher and respondents face to face to obtain information verbally to get data that can explain the research problem. Face to face interviews has a distinct advantage of

enabling the researcher to establish rapport with potential participants and therefor gain their cooperation. These interviews yield the highest response rates in survey research. They also allow the researcher to clarify ambiguous answers and when appropriate, seek to follow up information. Disadvantages include impractical when large samples are involved time consuming and expensive.

This interview was conducted only for a low many students in the class understudy to make it easier to get research data, namely the category of students who received the highest scores of two people, students who received medium scores of two people and students who received low scores of two people.

#### d. Study Document

Study documents are a way of obtaining data. The study document was carried out by the researcher to obtain data from the research carried out. To get the results of the research researchers using pictures video , recordings, student attendance lists, student attitudes, photos of activities.

## 2. Instrumentation of Data Collection

The research instrument is pre-test and post-test. The researcher used oral and written tests to collect the data. The researcher pre-test asked students to describe pictures. Students are given two minutes to speak to describe pictures using good English including vocabulary, grammar, pronunciation, fluency and understanding with good

confidence in front of the class. Post-test is given by the researcher after finishing the lesson to find out whether the students understand or not with the material given. The population of this study were first grade A class students of SMPN 1 Binjai Hulu. The sample in this study was first grade A class which was selected with thirty-three students.

This research used qualitative data (experience-based) and quantitative data (number-based) data collecting techniques. The qualitative data consisted of observation within the physical activity in the classroom and interview presented for the teacher. On the other side, the quantitative data consisted of measurement that was used to measure students' individual scores by oral test. Thus, they helped the researcher in reflection whether the action that given success in improving students' describe pictures by using the Communicative Speaking technique.

There are some research steps that the writer used in this research, as follows:

a. Observation Sheet

Observation sheet is used to observe all of the aspects that can influence and support the students motivation in learning such as the facilities in that school. Observation sheet also used to observe the condition that happened during teaching learning process that was filled by the English teacher as the observer to

give evaluation to the researcher and all of the students' activity during teaching learning process.

1. Observation sheet for the facilities of the school. The researcher observes directly to the location and watch the facilities there in the first meeting. The researcher observes the amount and whether the condition is good, enough or bad.
2. Observation sheet for the researcher when teaching learning process. The English teacher as an observer monitoring directly the researcher when teaching learning process. It will be conducted in pre-test and post-test. The English teacher observe the researcher activity such as the ability in opening the lesson, the researcher attitude in teaching learning process, teaching learning process, the ability in using media and technique, evaluation, and closing the lesson.
3. Observation sheet for students. It will be conducted in pre-test and post-test. In this stage, the researcher as the observer monitor and watch all of the students' activity during teaching learning process such as the students' activity, attention, enthusiastic, happiness, motivation, and confidence.



#### b. Interview Guideline

Interview guideline is simple a list of the high level topics that you plan on covering in the interview with the high level question that you want to answer under each topic. In the research interview is useful for researcher to gather information on a certain topic. Research interviews allow an interviewee to elaborate on their responses to render a clear context to you.

### D. Validity and Reliability

Validity is a standard or basic measure that shows appropriateness, usefulness, and validity that leads to the accuracy of the interpretation of an evaluation procedure in accordance with the measurement objectives. The research, related to the validity of the data was carried out through triangulation. These included different ways of triangulation:

- Time triangulation ( data were obtained from the different times and days), the researcher may collect data in first, second or third meeting or the other meeting, the researcher could be compared all of the data gotten.
- Space triangulation ( data were obtained from the different subjects or people), the researcher collected data in different groups of the subject so that it could be compared between two different subjects.
- Researcher triangulation ( data were analyzed based on more than one theory of expert), the researcher may consult documents related

to learner autonomy but also developed theoretical ideas from her own and others' observations and reflections (Burns, 2010 : 97).

Reliability is a concept used for testing and evaluating quantitative research, and it is most often used in all types of research.

#### **E. Data Analysis**

The data analyzed by using qualitative and quantitative analysis. In other words, the data analysis conducted to interpret data from only one test in one meeting. In this research, the researcher use two cycles to obtain data.

Before analyzed, the data obtained from the observation were transcribed and coded to make the analysis easier. There are some benefits of coding the date. There are:

- Define Objective : Whatever type of research we do, it always starts with a problem or phenomenon that becomes a gap for researchers. For that, the first thing we definitely do before doing data processing is to determine the objectives of our research. We can start by making a mind map or something that outlines the objectives and benefits of our research. That way we will really understand what the focus of our research is and what impact it has on life and for business interests. How to make research objectives or objectives, we must look again at the problem formulation, look for the right operational words to answer the existing problem formulation. Determining clear objectives at the beginning of the

research can make us more careful in observing the phenomena we want to study, the ability to read and map out issues that are being discussed a lot in a particular community.

- **Determining the Approach to be Applied :** After we have determined the clear objectives of our research, it is necessary to determine the approach to be applied to the research. Choosing a suitable approach is one of the important elements in conducting a research. To determine a research approach, we must first know several types of approaches, the advantages and disadvantages of each. The approach to a research can be chosen based on the type of research we are doing. That way the types of approaches can also be grouped based on the type of research we are doing. We can choose a qualitative approach or a quantitative approach or both.
- **Collecting data :** The objective is clear, the approach has also been determined, then we have to look for the availability of data that will be used for our research. In the data collection process, we must be able to ensure that the data is of high quality. So the next step is we need to record all the data relevant to our research, for example we use data based on the demographics of the informants or the characteristics of the informants. Next, double-check the data whether there are complete or missing values, and lastly, specifically for quantitative data, we must also assess the validity of the data to identify further data quality.

Every kind of data has a rare quality of describing things after assigning a specific value to it. For analysis, you need to organize these values, processed and presented in a given context, to make it useful. Data can be in different forms. Here are data types:

a. Qualitative Data

Qualitative data is data that is not in the form of numbers. In this research, researcher use qualitative data to help analyze the data. Qualitative data use by researcher in this research to describe. Qualitative research is an approach for exploring and understanding the meaning individuals or groups ascribe to a social or human problem. Qualitative method is an umbrella concept that covers interviews (group or one-on-one), participant observation (in person or online), and textual analysis (paper or electronic) (Tracy, 2019 : 4).

The process of research involves emerging questions and procedures, data typically collected in the participant's setting, data analysis inductively building from particulars to general themes, and the researcher making interpretations of the meaning of the data. The final written report has a flexible structure. Those who engage in this form of inquiry support a way of looking at research that honors an inductive style, a focus on individual meaning, and the importance of reporting the complexity of a situation. Qualitative research is an approach for exploring and understanding

the meaning individuals or groups ascribe to asocial or human problems ( Creswell & J. David, 2017 : 43).

Qualitative data processing techniques are as follows:

1. Editing

In this research, data process done by editing in advance of the notes from observations, interviews and filling out questionnaires. In this study, what was examined was the completeness of the material, writings, clarity of figures, and so on, which may have been done in a hurry when data collection was done. Editing is very necessary in data processing to correct incorrect data.

2. Coding

In this research, coding is very important for researcher because it makes it easier for researcher to manage data. Coding is use in observation notes, interviews and questions. Giving code helps researcher to make research results. The code can be in the form of numbers, letters, symbols or others.

3. Sampling

Sampling is the process of selecting the number of the population to be able to represent the existing population. Sampling technique is a technique used to determine the sample. So, a good research must pay attention to and Suse a

technique in determining the sample to be taken as a research subject. Sampling technique is a way to determine the number of samples in accordance with the data desired by the researcher who will be used as the actual data source, taking into account the characteristics and distribution of the population in order to obtain a representative sample.

The sampling technique in this study is purposive sampling. Purposive sampling is one of the non-random sampling techniques where the researcher determines the sampling by determining the specific characteristics that are in accordance with the research objectives so that it is expected to be able to answer the research problem. Purposive sampling is a technique of sampling data sources with certain considerations (Sugiyono, 2019 : 85).

The reason for using the purposive sampling technique is because is does not all samples have criteria in accordance with the phenomenon under research. Therefore, the author chose the purposive sampling technique which determined certain consideration or criteria that must be met by the samples use this research.

#### b. Quantitative Data

Quantitative data is data in the form of numbers. Quantitative data is defined as the value of data in the form of counts or numbers

where each data-set has an unique numerical value associated with it. This data is any quantifiable information that can be used for mathematical calculations and statistical analysis, such that real-life decisions can be made based on these mathematical derivations.

Data analysis can be done through the following stages:

a. Planning

At this stage the activities carried out are as follows:

- 1) The researcher designs the class that will be sampled.
- 2) Researcher makes research instruments that will be used by research.

b. Action

At this stage the activities carried out are as follows:

- 1) Researcher carry out learning on the research sample
- 2) Researcher test, analysis and set instruments study.

c. Evaluation

At this stage, the researcher analysis and processes the data that has been collected collect by a predetermined method.

d. Preparation of reports

At this stage, the activities carried out are compiling and report research results.

### Speaking Scoring Rubric

Following Rubric From Brown( 2010 : 157)

Table 1. 3. 1 Speaking Component Assessment

No	ASPECT	SCORE	INDICATORS
1.	Pronunciation	5	Easy to understand and has native speaker's accent.
		4	Easy to understand with certain accent.
		3	There are some problems in pronunciation made listener should more concentration and sometimes there is misunderstanding.
		2	Difficult to understand because there is problem in pronunciation, asked to repeat.
		1	The serious pronunciation so it can not be understood.
2.	Grammar	5	There is no or little mistake in grammar.
		4	Sometimes makes mistake in grammar, but it does not influence the meaning.
		3	Often makes mistake in grammar and it influences the meaning.
		2	There are many mistakes in grammar which made hinder in meaning and should re-arrange sentence.
		1	The grammar mistake is so bad so it is difficult to understand.
3.	Vocabulary	5	Using vocabulary and expression like native speaker.
		4	Sometimes using vocabulary which is not appropriate.
		3	Sometimes using vocabulary which is not appropriate.
		2	Using wrong vocabulary and it is limited so it is difficult to understand.
		1	Vocabulary is so limited so conversation impossible to occur.
4.	Fluency	5	Speech is smooth as a native speaker's.
		4	The fluency is disturbed by language problem.
		3	The fluency is disturbed more by language problem.



		2	Speech is frequently hesitant and jerky; sentences may be left uncompleted.
		1	Speech is so halting and fragmentary that conversation is virtually impossible.
5.	Comprehension	5	Understand all without any difficulties.
		4	Understand almost all, although there is repetition in certain part.
		3	Understand most of what she or he talks in slow speaking.
		2	Difficult to understand what she or he talks.
		1	Can not understand although in simple conversation.

The researcher determines students scores with the following formula:

$$N = \frac{\text{student score}}{\text{score maximum}} \times 100$$

Informations:

N= Student score

- a. Determine the grade average

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

Informations:

X= Average grade

$\sum X$ = Total score all students

N = Total number of students