III. RESEARCH METHODS

This chapter discusses about setting of the research, general description of the research, research procedure, gaining indicator of the research, instrument of the research, instrument of the research and data analysis clarified like the following:

A. Classroom Action Research Design

This was a classroom action research. In this research, the students' problem was found based on the interview and observation. It was found that the problem is some students did not comprehend in reading text. And based on the teaching learning process, the main problem of the students was that the students were not active and unenthusiastic when they were following English class. They felt frustrated when they could not find the appropriate information implicitly and explicitly about passage in a text. The problems mostly appeared when they were doing reading test; the students got difficulties in understanding the content of the test, they spent a long time to understand a text and to get the meaning of most of the words in a text.

So, a classroom action research was done to improve the students' reading mastery, the teacher's performance and the teaching learning process. The researcher taught wh-question and saw the improvement from the process and
product of teaching and learning. This research was done at the XI IPS grade of SMA KOSGORO Sekampung.

It was done based on the problem faced by the students when they were learning English. The *wh-question* which was used in her research was related to the topic. The syllabus for senior high school that class XI IPS of senior high school had to be able to find information implicitly and explicitly about the passage in a text. The subject of this research was the students of class XI IPS 1 of SMA KOSGORO Sekampung which consisted of 40 students. Most of the students had limited reading comprehension. 'Their reading comprehension was relatively low. It was show from block test; the students' result was below the KKM. Most of them were not able to do receptive and productive test well, it was difficult for them in reading comprehension.

In this classroom action research, the researcher acted as observer, researcher made the lesson plan: in the classroom. The teacher implemented *wh-question* technique. Then, there were two observers who observed the teacher's performance and the students' activity during the teaching learning process occurs. The solution which was applied was teaching reading through *wh-question* technique. Then the lesson plan was designed and applied in the classroom. The researcher held two meetings for each cycle. After giving the treatments’ researcher administered an evaluation in order to measure the students' reading mastery.
B. Procedure of Action Research

In this classroom action research, there were two cycles. The first cycle was based on the problem faced both by the students and teacher. Each cycle of classroom action research consists of: 1. planning, 2. action, 3. observation and interpretation, 4. analysis and reflection.

The illustration of CAR is as follows:

Fig. 1. The cycle of Classroom Action Research (Arikunto, 2006: 16)

The main steps of the cycle were as follow:

1. Planning

Based on the problem of the research, the researcher prepared lesson, and selected the topic that was relevant to the curriculum of senior high school. The
researcher created some themes, such as *Indonesia archipelago*. The *wh-question* technique used the material that could be applied for senior high school.

2. **Action**

Action was a part of the cycle where the teacher did the treatment, that is teaching reading through *wh-question* technique. In this stage, the researcher applied the lesson plan that was prepared previously in the teaching learning process. In the activities, the teacher built up the students' mind about the material that was given by asking some how question. After that, the teacher explained the material related to the topic. Then the teacher divided the students into seven groups to compete the reading test that the teacher administered. Then the teacher asked the students to categorize the words related to their reading mastery after doing the reading test. The observers observed the situation in the classroom and made some necessary notes.

3. **Observation and Interpretation**

During the teaching and learning processes, the students' activities were observed by the ratter. The teacher performance was observed and noted by the observer using an observation sheet to interpret the result of teaching learning process. This step was done while the teaching learning process occurred.

4. **Analysis and Reflection**

Reflection means that the researcher analyzed and reflected the teaching and learning process based on the observation result, students' performance and the reading task to find out the improvement of students' mastery. The researcher
analyzed the strength and the weakness of the activity, material, media and students’ mastery. Based on the result of this reflection, the researcher could determine whether next cycle was needed to be done or not.

C. Research Indicators

This part consists of the research indicators, such as learning process there are students' activity, teacher's activity and learning product

a. Learning Process

For the learning process, observation have done toward the teacher by an observer during the teaching learning process by observing the whole students’ activities in the class and filling the observation form, and the teacher’s activities. The indicator is that if the teacher and the students get 70% from the result of the observation form.

b. Learning Product

In line with the standard score of Minimum standard stated by SMA KOSGORO Sekampung for English subject, the indicator of the learning product for the second year was 70. So, the researcher and the teacher determined the target according to the standard. If at least 70% of the students’ score could reach 70 or more for the test, it was assumed that wh- question technique could be used to foster the learning product.
In order to see whether *wh-question* technique could be used to improve the students’ reading mastery in the Classroom Action Research, the researcher determined the indicators dealing with the learning process and products.

There are some aspects that would be observed in the scoring system as promoted by Harris (1979: 68-69). The aspects of reading are as follows:

**Main Idea**

**The indicators of the answers as follow:**

- 20-25  Appear to understand everything without difficulty.
- 16-19  Understand nearly everything at normal
- 12-15  Understand what written at lower than normal
- 8-11   Has great difficult following what is written
- 4-7    Can not  understand even simple written in English.

**Synonym (for five test number)**

**The indicators of the answers as follow:**

- 20   All answer correct
- 15   Wrong one number
- 10   Wrong three number
- 5    Wrong four number
- 0    Wrong all answer
Antonym (for five test number)

The indicators of the answers as follow:

20 All answer correct
15 Wrong one number
10 Wrong three number
5 Wrong four number
0 Wrong all answer

Reference Information

The indicators of the answers as follow:

20-25 Appear to understand everything without difficulty
16-19 Sometimes uses inappropriate terms and/or must rephrase ideas because of lexical inadequacies but easy to understand
12-15 Frequently uses the wrong words, written somewhat limited because of inadequate vocabulary and not clear meaning
8-12 Misuses of words and very limited vocabulary and difficult to understand
4-7 Countained to understand Vocabulary limitation to extreme as to make virtually impossible.

Inference

The indicators of the answers as follow:

20-25 Appear to understand everything without difficulty
16-19 Sometimes uses inappropriate terms and, or must rephrase ideas because of lexical inadequacies but easy to understand
12-15 Pronunciation problems necessitate concentrated listening and occasionally lead to misunderstanding.

8.11 Very hard to understand because of written irrelevant problem

4-7 Written problems, too severe as to make it confuse to understand.

The score of a student would be taken by two observers, they are researcher and teacher, and the score would be totalled and divided by the number of the teacher and the researcher to get the final score. The calculation as follows:

\[
\text{Final score: } \frac{\text{Researcher score} + \text{Teacher score}}{2}
\]

The standard of the score would be at level 12 (for each aspect) according to Harris’s rating scale. It refers to the ability of students in reading comprehension.

D. **Instruments of the Research**

In getting the data, the researcher employed consists of two instruments. Supported the instruments used here were reading test and observation sheet. The instrument used to trap the students’ opinion. To motivate the students’ to improve their English ability. The researcher used reading test using by *wh*-question make group of students’.

The instruments could be specifically as follow:

1. **Reading test**

The first instrument in getting the data was reading test. It was chosen as the instrument because it required the students to measure their reading mastery. Reading test could also motivate the students to improve their English ability. The
researcher used the reading test proposed by Heaton (1991). The test assessed the students' understanding and the students' reading by choosing the correct answer related to the topic.

2. Observation Sheet

In this research the researcher observed directly what was happening during teaching learning process when the teacher implemented *wh-* question technique in teaching reading comprehension. The aspect of students’ activities and teacher performance that would be observed. The observation sheet was adapted from APKG/ *Alat Pengukur Kemampuan Guru* (Lampung University: 2006) to observe teacher’s performance. The researcher classified each aspect into five categories: 1. highly satisfactory, 2. satisfactory, 3. sufficient, 4. insufficient and 5. highly insufficient.

E. Data Analysis

Data analysis is the process of organizing the data in order to gain regularity of the pattern and form of the research. The term interpretation can be defined as procedure of giving meaning on the result of the analytic process (Setiyadi, 2006:255).

In this research, the researcher analysed the data obtained by reading test and observation. The researcher analyzed the data based on the limitation of the problems and objectives of the research. Meanwhile, in order to measure the reliability of the reading score, the researcher used interacted reliability. Interacted
reliability was used when the test independently estimated by two or more judges or raters. In addition, it was important to ensure that both raters used the same scoring criteria. That was product scoring criteria adapted from Jacob et al (1981:90).

The data in the learning process was observation. The aspect of teacher’s performance was classified into five criteria, they are: very satisfactory, satisfactory, sufficient, insufficient and very insufficient. The researcher determined the criteria achieved by each aspect of teacher’s performance after she observed the teacher in teaching learning process. Meanwhile, the data in the learning product was score of students’ reading test. The last step is making the report. After the researcher had got the data, she tried to interpret all collected data and described them in detailed.

1. Learning Process

In this learning process, observation is done both to the teacher and to the students by the observer during the teaching learning process by observing the whole activities in the class and by filling the observation sheets. The observation is done to know the students’ activity and teacher performance based on the problems faced by the students and teacher.

Calculating the percentage of students’ activities

For calculating the percentage of the students’ activities, the following formula was used:
\[ \% A = \frac{A}{n} \times 100\% \]

Note:
\( \% A \) : percentage of students’ activities

\( A \) : number of students’ activities observed

\( n \) : number of students in the class

(Setiyadi, 2006:255)

Since the observation have done for observing the students’ activities, the researcher had analyzed the result of the observation separately. In analyzing the data from observing the students’ activities, the researcher had count the number of students who are actively involved in the teaching learning activities and also will calculate the percentage of the students. In addition, the researcher had make abstraction or description then select the important data which related to the activities of the students.

2. Learning Product

To know the learning product, the researcher used reading test using \textit{wh-question}. There is the criteria used to analyze the data gained from the test: If at least 70% of students’ scores can reach 70 or more for the test, it is assumed that \textit{wh-question} Technique in Increasing Students’ vocabulary mastery is applicable. To know the percentage of students’ who get \( \geq 70 \), the following formula is used:

\[ \frac{\text{Number of students who get } \geq 70}{\text{Total number of students}} \times 100\% \]

(Jacob et al 1981:90)