

## **CHAPTER III RESEARCH METHOD**

This chapter discusses the methods of research used in this study, that are: setting of the research, general description of the research, research procedures, determining indicator of the research, instruments of the research, and data analysis.

### **3.1 Setting of the Research**

In this research, the researcher used classroom action research. This research was done at SMAN1 Krui. It was done based on the problem faced by the teacher in the class. Based on the problem found by the researcher, the researcher examined the cause of the problem and then found the solution for that problem.

The subject was the second year students of SMAN1 Krui class XI social science department (IPS 4) which consists of 30 students. Based on the researcher's pre-observation in that school she concluded that the students of that school were unable to identify the main ideas, specific information, vocabulary making reference and inference of each paragraph of the text. As the result their reading comprehension scores were low.

In this classroom action research, the researcher acted as the observer; meanwhile the teacher of SMAN1 Krui taught her own students by implementing Jigsaw technique. The researcher made the lesson plan and told the teacher what she

would perform in the class based on the lesson plan. So, during the research, the researcher observed everything occurring in the classroom when they were learning reading comprehension. The data was taken from the students' reading comprehension score.

### **3.2 General Description of the Research**

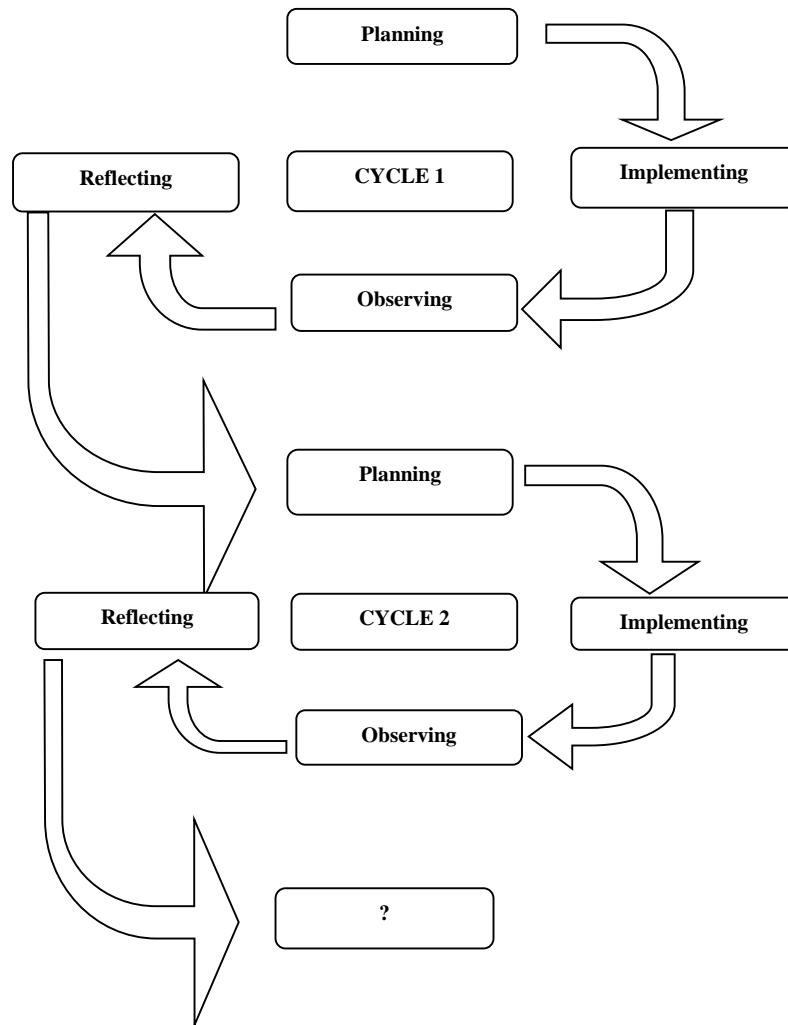
The research was conducted based on the problem faced by the teacher. In doing the research, the researcher collaborated with the English teacher to improve the students' reading comprehension achievement through the implementation of jigsaw technique.

While the teacher was applying jigsaw in the classroom, the researcher observed the teaching learning process and made some necessary points from that process. In that process, the teacher also held reading comprehension test by asking the students to read and answer the question based on the text.

After that, the teacher and the researcher analyzed the result of the observation, and also the reading test. The teacher and the researcher did reflection after knowing the result of the analysis. Based on the analysis and reflection, the researcher and the teacher decide whether the next cycle need to be held or not, and the next cycle focused on eradicating the weaknesses in the previous cycle.

### **3.3 Research Procedures**

Each cycle in this research consisted of (1) planning, (2) implementing, (3) observing, and (4) reflecting (Kemmis and Taggart, 2004: 66). The stages were illustrated as follow:



**Figure 3.1 The Cycle of Classroom Action Research Adopted from Kemmis and Taggart  
(In Hopkins, 2004: 69)**

### **3.3.1 Planning**

Based on the problem of the research, the researcher prepared the lesson plan and selected the material from the textbook. The material was narrative text, which was taken from the students' text book. Additionally, the researcher prepared classroom observation note, the reading test for the students.

### **3.3.2 Implementing**

In this step, the teacher implemented jigsaw technique while she was teaching reading comprehension. The teacher was teaching the material about how to identify the main idea, specific information, vocabulary, making reference and inference from narrative text given. Next, the teacher leads the students practice doing it. The researcher observed the situation in the class and made some necessary notes.

### **3.3.3 Observing**

The researcher observed the activities happened in the classroom in every cycle and write the result of the observation in the observation sheets. The researcher also interpreted the result of the observation. This step started when teaching learning process was occurring.

### **3.3.4 Reflecting**

In this step, the researcher and the teacher analyzed the result of the reading test of the students as the learning product. The researcher also analyzed everything occurred in the teaching learning process based on the observation notes. It was done to find out the improvement after the teacher implements jigsaw technique in the classroom. In analyzing the data, the researcher together with the teacher did reflection to discover the strength and weakness of the implementation of jigsaw technique, and also to know the problems faced by the students during teaching and learning process. By doing so, the researcher and the teacher knew what should be improved for the next cycle. If the indicators of the research hadn't been

fulfilled in the first cycle, the researcher together with the teacher planned the next step to made betterment in the next cycle. On the other hand, if the indicators were already achieved the researcher and the teacher did not need to hold the next cycle.

The activity began from planning, and came to the action where the researcher and applied what she had planned. During the implementation of the planning, the researcher observed the process of teaching learning. At the end, the researcher analyzed the result of the activity.

### **3.4 Determining Indicators of the Research**

To find out the success of this classroom action research, the researcher determined the indicators, which deal with the learning product and the learning process.

#### **3.4.1 Learning Product**

The target of the learning product determined by the researcher and the teacher was 65 or more. It was done because 65 is the minimum standard of passing grade or KKM stated by the school for English subject. So, if at least 80% of students' scores could reach 65 or more for the reading test, it meant that the Jigsaw technique can improve the students' reading comprehension achievement. The aspects of reading which measured are identify the main idea, specific information, vocabulary, making reference and inference.

To know whether the test is good reflection of what would be taught and of the knowledge which the teacher wanted the students to know, the researcher compares this test with table of specification. If the table represented the material

that the researcher wanted to test, then it was valid from that point of view. A table of specification is an instrument that helps the test constructor plans the test.

**Figure 3.2 Table of Specification**

NO	Objective	Number of Items	Percentage
1	Identifying main idea	8,10,11,12	20%
2	Specific Information	2,3,5,7,9,15,16,19	40%
3	Inference	1,20	10%
4	Reference	13,17	10%
5	Vocabulary	4,6,14,18	20%
Total		20	100%

### 3.4.2 Learning Process

In learning process, there were two aspects which became the focus of this research was the students' activities and the teacher's performance toward the implementation of jigsaw technique.

The target determined by the researcher concerning the students' activity was 80% of students were active during the process. The researcher decided to set 80% as the target since according to Arikunto (1993:210), if more than 75% of students were actively involved in teaching and learning activities, it can be categorized as a good level. Students' activity was measured through written report of the collaborator and researcher in observation sheet. To set the target of the success of this CAR, the researcher also did a discussion with the English teacher of that school.

Besides observing the students' activities, the researcher also observed the teacher's performance during the teaching and learning process. It was expected that the teacher could get score 75 in her teaching performance after implementing jigsaw technique. So, if the teacher could reach that target, it means that the teacher's teaching performance was very good. For the teaching

performance, there were some aspects scored that were. the teacher's activities in pre-activity, while-activity, and post-activity.

### **3.5 Instruments of the Research**

To gather the data, the researcher applied two kinds of instruments: the reading test and observation sheet.

#### **3.5.1 Reading Test**

Reading test was done as the product of the teaching learning process. The test focused on identifying the main ideas, specific information, vocabulary, making reference and inference of each paragraph of the text. The text used was narrative text in which students are asked to analyze in the text and answer the comprehension questions given. The result of the test considered as the data of the students' improvement.

In scoring the result of students' test. the researcher used percentage correct (Lyman, 1971:95). The percentage correct score was used in reporting the result of classroom achievement tests. The researcher calculated the score test by using this formula:

$$X \%c = 100 \frac{R}{T} \quad (\text{Lyman, 1971:95})$$

Where:

$X \%c$  : percentage of correct score

R : number of right answers

T : total number of items on test

#### **3.5.2 Observation Sheet**

Observation was conducted in every cycle during the teaching learning process. When teaching and learning process was occurring, the researcher observed the process happened in the classroom. The researcher used structured observation to know the students' activities and teacher's performance in the classroom. So there are two kinds of observation sheet that are filled out by the researcher, that were the observation sheet for the students' activities and observation sheet for the teacher's performance. For observe students' activities, the researcher used table of specification of the observation sheet for students' activities. adapted from (Haggard, 1982) and (Ruddel, M.R., & Shearer, B.A. 2002). And for observe teachers' performance, the researcher used table of specification for teachers' performance, adapted from (Dep. Pendidikan Nasional, 2006). Besides, the researcher also made some necessary notes in the observation sheet concerning the students' activities.

**Figure 3.3 Observation Sheet for Students' Activities**

NO	Students' Activities	Objectives
1	Pre-Activities <ul style="list-style-type: none"> <li>• Interested in the opening of the class</li> <li>• Responding to the topic enthusiastically</li> </ul>	<ul style="list-style-type: none"> <li>• To make students interested in the lesson</li> <li>• To build clarity about what is going to be learnt</li> </ul>
2	While-Activities <ul style="list-style-type: none"> <li>• Paving attention to the teacher's explanation</li> <li>• Responding to the teacher's questions</li> <li>• Following the teacher's instruction to make expert group</li> <li>• Following teacher's instruction to read and discuss the material.</li> </ul>	<ul style="list-style-type: none"> <li>• To make students work freer and enable fast learner help slow learners</li> <li>• To built students understanding about the stages going to do in the lesson</li> <li>• To check students understanding about the material</li> <li>• To give clarity of the pronunciation</li> <li>• To build students understanding about the material</li> </ul>



	<ul style="list-style-type: none"> <li>• Following the teacher's instruction to make jigsaw group.</li> <li>• Actively involving to share and discuss and complete their information in group</li> <li>• Following teacher's instruction to answer the question by their own word.</li> <li>• Following teacher's instruction to make a summary by their own word</li> </ul>	
3	Post-Activity <ul style="list-style-type: none"> <li>• Able to respond to the teacher's question</li> </ul>	<ul style="list-style-type: none"> <li>• To built clarity of what have been learnt</li> </ul>

Adapted from Haggard (1982) and Ruddel, M.R., & Shearer, B.A. (2002)

**Figure 3.4 Observation Sheet for the Teacher's Performance**

NO	Aspects Observe	Scores (by giving a tick)			
		1	2	3	4
1	Pre-activities <ul style="list-style-type: none"> <li>- The teacher was well-prepared and well-organized in class.</li> <li>The prepared goals/objectives were apparent.</li> </ul>				
2	While- activities <p>A. Presentation</p> <ul style="list-style-type: none"> <li>- The class material was explained in an understandable way.</li> <li>- The lesson was well-paced.</li> </ul>				

	<ul style="list-style-type: none"> <li>- Directions were clear and concise and students were able to carry them out.</li> <li>- Material was presented at the students' level of comprehension.</li> <li>- The teacher knew when the students were having trouble understanding.</li> <li>- The teacher showed an interest in, and enthusiasm for, the subject taught</li> </ul>				
	<p><b>B. Execution/ Methods</b></p> <ul style="list-style-type: none"> <li>- There were balance and variety in activities during the lesson</li> <li>- The teacher was able to adapt to unanticipated situations.</li> <li>- The teacher moved around the class and made eye contact with students.</li> <li>- The teacher knew students' names</li> <li>- Students responses were effectively elicited (i.e., the order in which the students were called on)</li> <li>- Examples and illustration were used effectively.</li> <li>- Appropriate error correction.</li> </ul>				
	<p><b>C. personal characteristics</b></p> <ul style="list-style-type: none"> <li>- Patience in eliciting responses</li> <li>- Clarity, tone, and audibility of voice</li> <li>- Initiative, resourcefulness, and creative</li> </ul>				
	<p><b>D. Teacher / Student Interaction</b></p> <ul style="list-style-type: none"> <li>- Teacher encouraged and assured full students participation in class.</li> <li>- The teacher was able to control and direct the class.</li> <li>- The students were attentive and involved.</li> <li>- The teacher was aware of individual and group needs.</li> </ul>				
	<b>E. Evaluation</b>				

	<ul style="list-style-type: none"> <li>- Monitoring the students' improvement after the teacher explains the lesson.</li> <li>- Doing a final evaluation which is relevant to the competence.</li> </ul>				
3	Post-activity <ul style="list-style-type: none"> <li>- Doing a reflection/ making summary of the lesson by the involving the students' participation.</li> <li>- Doing a follow-up by giving direction or tasks as a remedy.</li> </ul>				
	Total score				
	Description of score				

(Source: Dep. Pendidikan Nasional, 2006)

**Note:**

1 = poor

2 = Enough

3 = Good

4 = Very Good

Description of scores:

40-50 : Poor

60-69 : Enough

70-79 : Good

80-100 : Very Good

### 3.6 Data Analysis

In analyzing the data, the researcher classified the data into two categories that were, the data of the learning product and the learning process. The data analysis was done during and after the data had been collected from every cycle (1<sup>st</sup>, 2<sup>nd</sup> ...). After the data from the first cycle had been collected, then the researcher together with the teacher analyzed the data and did reflection based on them. From the analysis and reflection, the researcher knew the strengths and weaknesses from the first cycle. Besides, both researcher and teacher knew what should be improved for the next cycle.

### 3.6.1 Learning Product

To know the learning product, the researcher used reading test to collect the data.

There were some steps which were used to analyze the data got from the test:

#### A. Giving the Reading Scores to the Students

After giving the test, the researcher checked the result of students' test to give the score. Besides that, the researcher analyzed the result to know the errors mostly made by the students. This was very useful for betterment in the next cycle.

#### B Calculating the Number and the Percentage of the Students Who Get 65 or More

To know the percentage of students who got  $\geq 65$ , the following formula was used:

$$\frac{N_{\text{ost who}} \geq 65}{T_{\text{ntosi}}} \times 100\%$$

(Source: Dep. Pendidikan Nasional, 2009)

### 3.6.2 Learning Process

#### 3.6.2.1 Students' Learning Activities

After gathering data from observing the students' learning activities, counting the number of activities done by the students was the step that would be going to be done in this activity.

### **A 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

### **B Making a Description from the Data that Had Been Analyzed**

#### **3.6.2.2 Teacher's Performance**

Meanwhile, in analyzing the data got from observing the teacher's performance, the researcher did the following steps:

#### **A Counting the Total Score**

In this step, the researcher counted the sum of scores from all aspects. The aspects that were score cover the teacher's activities in pre-activity, while-activity, and post-activity.

#### **B Making a Description from the Data that Have Been Analyzed**

It was similar to analyze the students' activities. to analyze the teacher's performance the researcher also made a description from the collected data which could enriched and support the result of the analysis.