

## **CHAPTER 3**

### **RESEARCH PROCEDURES**

This chapter provides the methodology used in conducting this study. It explained the method of the research, focus of the research, setting and participants, techniques of collecting data, techniques of analysing data, steps of the research, and time and place of the research.

#### **3.1 Method of the Research**

In this study, the researcher used classroom action research (CAR). This research focuses on the classroom and aims to investigate what occurs within it (Allwright & Bailey, 1991). It is related to a problematic situation or issue that needs to be studied more deeply and systematically by participants (teachers, students, and others) through targeted interventions to produce better change and improvement in practice (Burns, 2010). Similarly, as recognized by Carr and Kemmis (1986), action research is the “reflective inquiry” undertaken by participants to enhance the rationality and fairness of their own social or educational activities, as well as their knowledge of those practices and the circumstances in which they occur. From what has been explained above, classroom action research is a type of research in which there is an effort to produce changes and improvements to problems or issues that arise through action as a result of participant reflection. Therefore, this research method is appropriate for this study which focuses on addressing reading comprehension problems. Specifically, this study aims to investigate and discuss the impact of implementing the jigsaw technique to improve students’ reading comprehension in a class with this problem.

The researcher conducted the classroom action research by two cycles based on the needs of the study, namely where the problem had been resolved according to the criteria of this study. Each cycle had a different number of sessions such as six meetings for cycle I and three meetings for cycle II. Each cycle has four phases as follows (Kemmis & McTaggart, 1988):

## 1) Planning

This phase is carried out to identify a problem or issue and develop a plan of action to bring about improvements in a specific area of the research context.

## 2) Acting

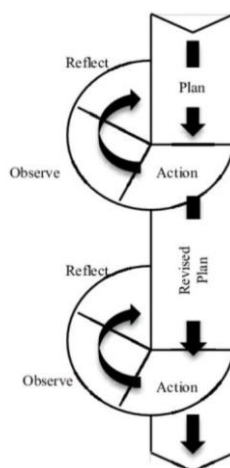
This phase contains a considered plan involving some deliberate interventions into the teaching situation carried out by the researcher over an agreed period. The interventions are ‘critically informed’ since they involve the process of challenging one’s beliefs and devising new alternative ways of doing things.

## 3) Observing

It involves the process of systematically observing the impact of the action and documenting the context, actions, and opinions of the people involved.

## 4) Reflecting

The researcher reflects on, evaluates, and describes the effects of the action to make sense of what has happened and to understand the issue that the researcher has explored more clearly.



**Figure 3.1** Research Flow Action Research According to Kemmis and McTaggart (1988)

The phases of classroom action research in this study are described in the following table.

**Table 3.1** Phases of CAR in the Study

Phases	Activities
Planning	<ul style="list-style-type: none"> <li>- The researcher decided to use a jigsaw technique as an effective teaching strategy to help students overcome their reading comprehension difficulties.</li> <li>- The researcher made lesson plans that were adjusted to the school curriculum with different learning objectives in each meeting.</li> <li>- The researcher prepared material with the topic “narrative text” for several meetings.</li> <li>- The researcher made instruments of tests in the form of fill-in-the-blank and multiple choice with twenty-five questions to measure students’ ability and know the extent to which jigsaw can improve it. In addition, observation sheets were created for an observer to complete to know how jigsaw can improve the reading comprehension of students.</li> </ul>
Acting	<p>The researcher implemented the jigsaw technique in teaching reading comprehension to students based on the lesson plans that she made.</p>
Observing	<ul style="list-style-type: none"> <li>- The observer observed classroom interactions and events in the teaching and learning process when the researcher implemented the jigsaw by focusing on how the implementation of the jigsaw can improve students’ reading comprehension abilities by filling in the observation sheets that had been made in detail.</li> <li>- The researcher distributed a post-test to the students at the end of the cycle to measure their reading comprehension skills.</li> </ul>
Reflecting	<p>The researcher reflected on the results of observation sheets and tests. If the findings from the first cycle have not seen any significant changes in the students’ reading comprehension skills according to the specified criteria, then the researcher can do the second cycle. Then, if the findings from the second cycle have seen significant changes according to specified criteria, the researcher may stop the cycle.</p>

### **3.2 Focus of the Research**

This research focused on the implementation of jigsaw in improving students' reading comprehension. Therefore, this research investigated how the implementation of the jigsaw technique can improve students' reading comprehension and to know the extent to which jigsaw improves students' reading comprehension in one of the junior high schools in Tasikmalaya.

### **3.3 Setting and Participants**

This research was held at a class of one of the junior high schools in Tasikmalaya, West Java. The data source was taken in one of the selected classes, which is 9-K to be observed, with the total number of students being 32 students. However, because of the permanent reason, there were only 31 students who joined the research.

This class was chosen based on its characteristics from the results of the pilot study. In this class, the students had problems with reading comprehension. It arises from their inability to comprehend texts as well as their dislike of group work in comprehending the text because they tended to be quiet, had less interaction with each other, were competitive, lacked collaboration, and were unresponsive. In addition, they were recommended by the English teacher at the school who already knew the ability and the situation in that class. Furthermore, the chosen participants could provide sufficient information to answer the research questions.

### **3.4 Techniques of Collecting the Data**

The data will be collected by using the following instruments:

#### **3.4.1 Observation**

The observation was used to collect qualitative data on how jigsaw can improve students' reading comprehension. The observation was carried out in the form of a checklist and notes to record the teaching-learning process activities during the implementation of the method. The observation sheet was adapted from the theory of jigsaw from Slavin (1980). It entails attentively monitoring and recording for the researcher to record and reflect methodically on classroom interactions and events. In this situation, peer observation was used, where the researcher was aided by an observer to observe how the jigsaw technique is applied

in improving students' reading comprehension. As Richards and Farrel (2005) mentioned, peer observation is aimed at gaining a better understanding of the teaching and learning process along with the information delivered. Hence, the researcher can find out the information from the observer.

While observing the researcher, the observer filled in the observation sheet that had been prepared, which included important points to note, as well as provided comments on events that occurred in the classroom to provide detailed information and understanding of the implementation of the jigsaw.

### **3.4.2 Test**

The test was used to collect quantitative data on the extent to which jigsaw can improve the reading comprehension skills of students. It was collected to know the students' ability in reading comprehension based on the indicators from Brown (2003). The test was in the form of multiple choice and fill-in-the-blank. Both pre-test and post-test were aimed to know the students' ability in reading comprehension. The pre-test was conducted to know the students' reading comprehension before the implementation of the jigsaw. Meanwhile, the post-test was conducted after each cycle. In addition, the test was measured for reliability using SPSS and validity in another class and asked the English teacher to validate the content of the test. Both validity and reliability are necessary for testing the test. Validity is needed to ensure that the test effectively measures what it is supposed to measure and the extent to which the conclusions drawn from the assessment are appropriate, meaningful, and useful for the assessment (Gronlund, 1998, as cited in Brown, 2003). Meanwhile, reliability is used to ensure the consistency and dependability of a test (Brown, 2003). Therefore, the test that was distributed has been tested.

### **3.5 Techniques of Analysing the Data**

The mixed method analysis was used to analyse the data. This type of analysis was chosen to analyse both qualitative and quantitative data in this research. Tashakkori and Creswell (2007) stated that mixed methods use both qualitative and quantitative methods in one study to combine data findings and draw conclusions. In this research, qualitative data was used to investigate how jigsaw

can improve students' reading comprehension through observation. Meanwhile, quantitative data was used to know the extent to which jigsaw can improve it through the test.

In combining data findings and drawing conclusions, there were two types of tools for analysing observation and test as follows:

### 3.5.1 Observation

After the data were collected through observation, they were analysed using Miles and Huberman's (1994) model qualitative data analysis model including

1) Data reduction

Data reduction refers to the process of selecting, focusing, simplifying, abstracting, and transforming the data that appear in written-up field notes or transcription.

2) Data display

A display is an organized, compressed assembly of information that permits conclusion drawing and action. In data display, there is a process of organizing information in a specific way.

3) Conclusion drawing and verification

The conclusion is also verified as the analyst proceeds. Verification may be as brief as a fleeting second thought crossing the analyst's mind during writing, with a short excursion back to the field notes or it may be thorough and elaborate. In this step, the researcher concluded and verified the data related to the way jigsaw improved students' reading comprehension after matching it with the data that had been reduced and displayed.

**Table 3.2** Observation Data Analysis Process

Steps	Processes
Data Reduction	Sorted and focused the data from the observation sheet to answer the way of implementing a jigsaw that can improve students' reading

Steps	Processes
Data Display	comprehension as the focus of the research.  Displayed data on how jigsaw can improve students' reading comprehension in the form of descriptions and tables in which information was arranged and merged.
Conclusion Drawing and Verification	Concluded and verified the data related to the way jigsaw improved students' reading comprehension after matching it with the data that had been reduced and displayed.

### 3.5.2 Test

After the data from the tests were collected, they were analysed using descriptive statistics.

Student's score:

$$\frac{B}{N} \times 100$$

Notes:

B: correct number of items

N: number of questions

Then, the mean will be calculated. In finding the mean in the descriptive statistics, it also uses the SPSS.

The success of teaching reading comprehension using a jigsaw can be said if the student's score reaches the Criteria of Minimum Completion or *KKM* which is 78 and the score of the mean is improved.

## 3.6 Steps of the Research

The several steps of this research are as follows:

### 3.6.1 Identifying problems

The researcher identified problems at the research location. She conducted pre-observation in the classroom, a pre-interview with the English teacher regarding

the students' condition and learning process, particularly in reading comprehension. In addition, she gave the pre-test that had been checked for validity and reliability to check the reading comprehension abilities of students. The result reveals that the students struggle with reading comprehension. Furthermore, they are lack collaboration, tend to be quiet, have less interaction with each other, competitive, and unresponsive, which they dislike.

### **3.6.2 Cycle I**

#### **1) Planning**

In the planning phase, the researcher:

- a) Decided to use jigsaw to solve students' reading comprehension problems.
- b) Created lesson plans for the implementation of jigsaw in reading comprehension that is also considered in the school curriculum.
- c) Made research instruments such as a post-test that is checked for validity and reliability to measure students' reading comprehension and observation sheets to observe the teaching and learning activities.

#### **2) Acting**

In the acting phase, the researcher implemented a jigsaw reading comprehension activity in the classroom with narrative text material in the following steps:

- a) Started the class by greeting students, and giving questions related to comprehending the reading texts.
- b) Divided students into heterogeneous groups.
- c) Gave each group the same material for reading texts.
- d) Instructed each student in the group to focus on a separate topic in comprehending the text and become an expert.
- e) Instructed students with the same focus to meet to discuss the topics in the expert group.
- f) Instructed students returned to teach their focus to the other



members of their jigsaw groups.

- g) Gave each student a quiz on the work's results before. The scores of the quiz are used to form team scores.
- h) Closed the class.

### 3) Observing

In the observing phase, the researcher:

- a) Got help from the observer to observe the teaching-learning process by filling out the observation results sheet and taking a note during the teaching and learning process with the help of an observer.
- b) Identified the jigsaw activity during the teaching and learning process.
- c) Distributed post-test to measure students' reading comprehension abilities.

### 4) Reflecting

In the reflecting phase, the researcher reflected at the end of each cycle. The researcher discussed the outcome of the actions based on the observation and post-test to determine whether or not the actions were successful based on the specified criteria. If the actions are successful, the researcher continued to implement the jigsaw. If the actions lack success, it was revised in the next cycle.

## 3.6.3 Cycle II

### 1) Planning

In the planning phase, the researcher made a plan with improvements from the results of the cycle I reflection, made the same lesson plan as before but with new narrative text titles, made a test, and prepared the same observation sheet.

### 2) Acting

In the acting phase, the researcher conducted the teaching of jigsaw in reading comprehension. The teaching process was the result of reflection in cycle I. The researcher did the teaching reading

comprehension using a jigsaw but with improvements from the previous cycle.

3) Observing

In the observing phase, the observation is still conducted during the teaching and learning process. It aimed to know the impact of the implementation of the jigsaw in the teaching and learning process of reading comprehension in cycle II. In addition, the researcher distributed a post-test to know the improvement of students' reading comprehension skills.

4) Reflecting

In the reflecting phase, the researcher analysed the observation and post-test results. In addition, she concluded and reported the results of the research. Hence, the researcher gave the impact of how jigsaw can improve students' reading comprehension and the improvement of their reading comprehension skills.

However, the first cycle was carried out in six meetings. Meanwhile, the second cycle was carried out in three meetings as a revision of the first cycle and it was also conducted to ensure the results of the first cycle, in this case, the improvement of students' reading comprehension using jigsaw.

### **3.7 Time and Place of the Research**

The research was conducted at one of the junior high schools in Tasikmalaya City, West Java.

