

### CHAPTER III

## RESEARCH METHODOLOGY

#### A. Research Design

This research was conducted using the classroom action research research design (CAR). This research's goal, which is to enhance teaching methods by employing Directed Reading Thinking Activities (DRTA) to teach Reading Comprehension on recount texts, was in line with the research approach used. It is classified as action research as a result. Burns (2009: 7) defines classroom action research as a type of research in which a teacher participates as a researcher or works in collaboration with a researcher to investigate their own teaching context using a self-reflective, critical, and systematic approach to identify a problematic situation deemed worth looking at and to intervene in the problematic situation in a deliberate manner to bring about changes and better practice. The following figure illustrates how this study used Burns' (2009: 9) suggested classroom action research design.

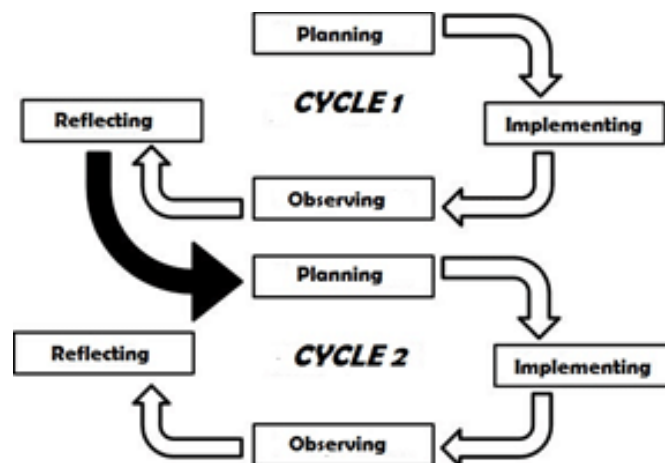


Figure 3.1. The model of CAR based on Burns (2009: 9)

In this study, the researcher involved all four phases: planning, action, observing, and reflecting. It was also planned that the whole research procedure consists of 2 cycles until the research was considered completed. To provide a clear answer to the focused problem in the previous part, the researcher used

mixed method in data collection and analysis process. Mixed method means that the research utilize both quantitative and qualitative data in addressing the practical problems (Creswell, 2012: 22). To be more detailed, the qualitative approach would focus on the implementation of Directed Reading Thinking Activities (DRTA) and the students' experience towards it. While, the quantitative approach would focus on the students' reading comprehension ability to recount texts based on aspects of reading comprehension (see Aspects of Reading Comprehension in Chapter II).

In the action and observing stages, the researcher involved a group of participants, whose class used the Directed Reading Thinking Activity (DRTA) to teach reading comprehension on recount text. These participants have been tested at preliminary stage, cycle 1 and cycle 2. The students' individual scores were used to describe the improvement of reading comprehension individually. On the other hand, interview was conducted to illustrate their comments and attitudes towards the use of Directed Reading Thinking Activity (DRTA) strategy in the classroom.

## **B. Subject of Research**

As in other types of research design, the source of information that is being studied can be an object or an individual. In CAR, the data is collected from a subject. Coghlan & Brydon-Miller (2014: 22) illustrates a subject as an individual or group of individuals involved in a study and acts as the focus of observation by the researcher and other activities of data collecting. This study involved students of class XI of SMA Negeri 1 Sekadau Hulu as the subjects of research. These students were majoring in natural science (or IPA in Bahasa Indonesia) and there were 20 students in total, particularly their class is MAI 1. The researcher involved this group of students since in the apprenticeship program conducted by the university the researcher is studying, the researcher was assigned at this school. During this program, the researcher also found several problems and one of them was the reading comprehension on recount text. The English teacher who was the researcher's

supervisor during the apprenticeship program, suggested to also focus on this issue once this research gains approval to be conducted.

### **C. Techniques of Data Collection**

The process of collecting data involves more than just gathering information. In this study, the researcher involved a collaborator to help collecting the data. The collaborator here was the English teacher who taught research subjects. This section discusses how the study collected the key data from subjects through three procedures of data collection. The following table describes the details in more understandable way.

#### **1. Measurement**

The process of collecting data involves more than just gathering information. In this study, the researcher has applied quantitative approach for collecting the data. One of the most common techniques used in quantitative study such as this present research is measurement. According to Ary et al. (2014: 113), measurement is a process to produce numerical data related to the variable and it would be used to determine the interpretation that can be made from the data and the statistical procedure that can be used meaningfully with them. This technique focuses on collecting the data on the students' reading comprehension ability to recount text by using a reading test with several recount text passages. In every cycle, this technique was done at the end of the action phase (after the researcher has implemented the Directed Reading Thinking Activity in the lesson).

#### **2. Observation**

In this study, observation was employed to gather qualitative data. By keeping close watch on a variety of people and locations at a research site, observation is a strategy for acquiring unstructured, first-hand knowledge (Creswell, 2012: 154). The researcher chose to incorporate a collaborator as a nonparticipant observer as described previously in the

subject of research part because observing in a setting necessitates good listening skills and close attention to visual detail. In the third stage of the CAR cycle, which is observation, this method of data collecting was used.

The observation itself has three process to gather sufficient data in the cycles later; and they are planning meeting, classroom observation, and feedback discussion. The researcher involved the nonparticipant observer and the English teacher in all three processes to help develop the data gathering for the observational data. In addition, this observation focused on teaching activity and the students' activity during the implementation of Directed Reading Thinking Activity in the classroom and what improvement is necessary to help achieve the purpose of the research.

### 3. Indirect Communication

In this study, the researcher collected the data on the students' attitude towards the implementation of Directed Reading Thinking Activity in the classroom in every cycle. The technique used to collect this data was indirect communication. Creswell (2012: 204) explains that indirect communication is a procedure of collecting the data by distributing questionnaire or asking for relevant documents as well as conducting an interview. This technique was done after giving the reading comprehension test with recount texts and conducting a classroom observation, which means before the reflecting phase of the CAR cycle. This technique involved an interview to find out the students' attitude and experience towards the implementation of Directed Reading Thinking Activity during the research.

*Table 3.2. Data Collection in this Research*

<b>Technique</b>	<b>Data</b>	<b>Tool</b>
Measurement (Quantitative)	Students' reading comprehension ability on recount text	Reading test with recount text passages created on

Approach)		Google Form
Observation (Qualitative Approach)	Teaching activity and students' activity during the implementation of Directed Reading Thinking Activity in the classroom and what to improve.	Observation sheet (checklist with brief note)
Indirect Communication (Qualitative Approach)	Students' attitude and experience towards the implementation of Directed Reading Thinking Activity in the classroom.	Interview

#### D. Tools of Data Collection

In this study, there were three types of data collection tools used to answer the research question. The following section describes what they are and the procedure to assess their validity before the research was conducted.

##### 1. Reading Comprehension Test

To improvement in students' reading comprehension on recount text after the intervention of DRTA, the researcher has administered reading comprehension tests. There are three tests and each test has been given at the preliminary stage and after action stages of research cycle 1 and 2. According to Ary et al. (2014: 215), a test is officially defined as a set of normative criteria that are presented to people in order to elicit responses from them from which a score can be calculated. This test was adopted from a study conducted by Novita (2014) and the following table shows the specification of the test.

*Table 3.3. Table of Specification of the Reading Comprehension Test 1*

Aspect	Number of Question	Total Item
Finding out the main idea of a text	1, 2, 6, 17, 24	5
Identifying important information in the text	5, 9, 10, 11, 12, 16, 18, 21, 22, 25, 27, 28	12
Deducing the meaning of unfamiliar lexical items	3, 7, 14, 15, 20	5
Understanding references	4, 8, 13, 19, 26	5

Making inferences	21, 23, 29, 30	5
<b>Total Question in the Test</b>		30

*Table 3.4. Table of Specification of the Reading Comprehension Test 2*

<b>Aspect</b>	<b>Number of Question</b>	<b>Total Item</b>
Finding out the main idea of a text	5, 9, 21	3
Identifying important information in the text	1, 2, 7, 11, 13, 15, 19, 24	8
Deducing the meaning of unfamiliar lexical items	3, 12, 22, 25	4
Understanding references	8, 16, 18, 22	4
Making inferences	4, 6, 10, 14, 17, 20	6
<b>Total Question in the Test</b>		25

*Table 3.4. Table of Specification of the Reading Comprehension Test 3*

<b>Aspect</b>	<b>Number of Question</b>	<b>Total Item</b>
Finding out the main idea of a text	6, 21	2
Identifying important information in the text	2, 11, 12, 13, 14, 15, 16, 17, 22, 24	10
Deducing the meaning of unfamiliar lexical items	9, 18	2
Understanding references	5, 8, 20, 23	4
Making inferences	1, 3, 4, 7, 10, 19, 25	7
<b>Total Question in the Test</b>		25

The test with details shown in table 3.3. has been given before the implementation of DRTA at the preliminary stage. While the one in table 3.4 and 3.5 were given during the implementation of DRTA in cycle 1 and 2. All tests consist of 25-30 test items that would assess the reading comprehension ability of the students. There are five aspects that would be assess further: 1) Finding out the main idea of a text; 2) Identifying important information in the text; 3) Deducing the meaning of unfamiliar lexical items; 4) Understanding references, and 5) Making inferences.

## 2. Observation Sheet

The researcher also has conducted a classroom observation to observe process of the teaching and the behavior, situation, and condition of the students naturally. Observation sheet is a document with statements or questions about the situation, behavior or relevant phenomenon happens in the classroom and it was prepared by the researcher that was used to observe the participants during a research (Creswell, 2012: 154). In this study, the observation sheet focuses on teaching activity and students' activity during the implementation of DRTA in the classroom. The form of the observation sheet is semi-structured with checklist options and brief notes. The researcher also adopted the observation sheet used by a study conducted by Habiburrohim (2017). The observation sheet can be seen in the appendix (see appendix V).

## 3. Interview

The researcher utilized an interview, conducted either verbally or face-to-face between the interviewer and the responder, to explain the students' attitudes and experiences regarding the implementation of the Directed Reading Thinking Activity in the classroom. The goal of the interview activity was to gather information that the interviewer needed to learn enough about the topics under study (Ary et al., 2014). The data from the interview was then used to provide an explanation on students' attitude and experience towards the implementation of Directed Reading Thinking Activity in the classroom. In this study, the researcher adopted an interview used in a study by Kurniaman et al. (2021). The following table shows the indicator of the questions used in the interview.

*Table 3.6. Table of Specification of Interview*

<b>Indicator</b>	<b>Question Number</b>	<b>Total Item</b>
Comments related to the action implementation	1, 2, 3, 6	4

Effects of the action on the selected problems	4, 5	2
<b>Total Questions</b>		<b>6</b>

## **E. Techniques of Data Analysis**

In this study, the researcher used a mixed method approach to analyze the data. Creswell (2012: 535) explains that a mixed methods data analysis is a procedure for analyzing and combining both quantitative and qualitative methods in a single study or a series of studies to understand a research problem. Because of this, the data analysis procedure has been divided into two stages since the researcher used three tools of data collection as mentioned before.

### **1. Qualitative Data Analysis**

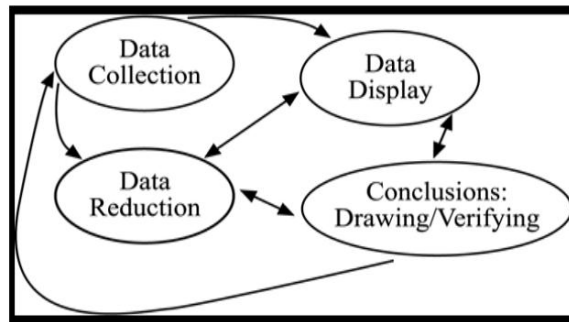
Responses from observation and interview sheets that are presented as textual data make up the qualitative data. These data were examined using the procedures for qualitative data analysis recommended by Burns (2009: 104-105). The data were initially prepared by the researcher for analysis. After gathering the data, the researcher sifted over the information and searched for overarching trends, ideas, or patterns that appeared to address the study topic. The data are now prepared for study, and the process of further data analysis can begin.

The next step was data reduction, where the researcher processed raw data from the tools by sorting out important and relevant data from the unimportant ones by coding the data into more specific patterns or categories. After that, the researcher proceeded to data display, where the categories or patterns from the data collected from the conducted cycles would be compared. This was done to see whether there were similar data or contradictions that can be highlighted later. To display the data in a concise form, tables were developed from them.

Afterwards, the analysis procedure was proceeded to drawing conclusion and verifying the data. In this step, the researcher reflected on the data to build meaning and interpretations by identifying connections



and developing explanations. Then, the researcher crosschecked the interpreted data to the observer and the English teacher to reduce the bias of data analysis before reporting the outcomes. The following figure illustrates how the steps of this qualitative data analysis described previously into main stages of analysis.



*Figure 3.7. Data Analysis Procedure*

## 2. Quantitative Data Analysis

In this study, the researcher has used a quantitative approach to analyze the data. Creswell (2012: 535) explains that a quantitative data analysis is a procedure for analyzing data in a single study or a series of studies to acquire scientific explanation to the research question/problem by conducting statistical procedures. Data collected from the reading comprehension tests and observation checklists were analyzed by applying this procedure. After preparing and organizing data of reading comprehension tests for analysis, the researcher followed the suggested analysis procedure by Ary et al. (2014: 117-122). On the other hand, the researcher followed the suggested analysis procedure by Ary et al. (2014: 234) in order to analyze data from observation checklists. The whole procedure consists of four main stages and they are as follow:

### a. Determining individual score in reading comprehension test

The researcher assigned a numeric score to each response category (answer in test) for each question/item on the tool used to collect data. From that, the researcher determined that the type of score that was resulted from the tool of data collection (i.e., reading

comprehension test with recount texts) is summed scores for each of reading comprehension aspects assessed in the tests. In simple terms, the researcher calculated the total correct answer by each student in the test and divided it with the total item for each test. Hence, the individual scores of students in test 1, 2 and 3 were acquired. The following formula is the illustration of the calculation mentioned.

$$\text{Individual score} = \frac{\text{Total correct answer}}{\text{Total question item}} \times 100$$

After the individual score was acquired, the researcher created grouped frequency distributions. This was done to list the number of students based on their score range in a column from highest at top and lowest at bottom. As a result, the score distribution can be seen whether it is evenly or tend to cluster and where clusters occur in the distribution. The detailed result for the individual score for test 1, 2 and 3 can be seen in appendix. Students' individual scores were then graded into scales. The researcher adopted the absolute grading scale proposed by Brown & Abeywickrama (2010: 287). The data presentation for the reading comprehension tests in this study would be illustrated by using the frequency of students score based on the range of test score and the grading criteria. This method of data representation was adopted from a relevant study conducted by Guimba & Alico (2015). The following table illustrates the grading scale used in this study.

*Table 3.8. Absolute grading scale for reading comprehension*

<b>Range Score of Test</b>	<b>Grading Criteria</b>
90-100	Excellent
80-89	Good
70-79	Adequate
60-69	Inadequate
Below 60	Failing

b. Average score of reading comprehension test

After creating the grouped frequency distribution for test 1, 2 and 3, the researcher proceeded to calculate the average scores of all tests. These average scores would be used to describe students' reading comprehension improvement as a whole class group after the use of Directed Reading Thinking Activity (DRTA) strategy. The following formula was used to calculate the mean scores for reading comprehension test 1, 2 and 3:

$$\text{Average score of test } X = \frac{\text{SUM of individual score in test } X}{\text{Total students}}$$

*Note: The symbol X here represents the test being analyzed.*

c. Analyzing aspects of reading comprehension test

After the individual score and mean score in test 1, 2 and 3 were acquired, the researcher then could describe the improvement of students' reading comprehension based on its aspects after the implementation of Directed Reading Thinking Activity (DRTA) strategy. To explain further, the researcher proceeded to analyze the improvement based on the mean score of all aspects of reading comprehension that were assessed in test 1, 2 and 3. The following formula explains the procedure.

$$\text{Mean score of aspect } X = \frac{\text{Total correct answer of aspect } X}{\text{Total question item of aspect } X}$$

*Note: There are 5 aspects of reading comprehension assessed in test 1, 2 and 3. The symbol X here represents the aspect being analyzed.*

d. Analyzing data from observation checklists

The researcher used the observation checklist to describe the teaching activity and students' activity during the implementation of DRTA in the classroom. The researcher assigned a numeric score to whether the activity was conducted or not. Option YES was scored 1 and option NO was scored 0. From that, the researcher determined

that percentage score for each cycle to find out whether there was a planned activity in the classroom that was skipped. The following formula is the illustration of the calculation mentioned.

$$\text{Lesson conduct (\%)} = \frac{\text{Total activity conducted in a cycle}}{\text{Total activity planned in a cycle}} \times 100$$

In this study, the researcher used the data analyzed from the observation checklist to confirm whether the implementation of Directed Reading Thinking Activity (DRTA) strategy faced a problem or not. The result was used to help design the next cycle plan. The data is displayed in Appendix VI.

## **F. Research Procedures by Using CAR Design**

The cyclical model by Burns (2009: 9) was employed for this classroom action research project. Planning, action, observation, and reflection are the four stages that make up each cycle of this action research. In addition to these stages, the preliminary stage was also used in this research before the cycle model was put into use. It involved acquiring basic data regarding the research objective. The researcher conducted an initial classroom observation and conducted an interview with the English teacher to get the information. The elaboration of each stage is briefly summarized in Figure 3.1.

### **1. Planning**

To identify problems related to teaching English in class XI of SMA Negeri 1 Sekadau Hulu, the researcher analyzed the information collected by conducting classroom conversation at the preliminary stage and administering test 1. Then, the researcher along with one of the English teachers (i.e., the teacher collaborator) identified problems related to reading and decided which feasible problems to solve.

Several procedures were done to prepare and establish the relevant actions to be used in each study cycle. In order to increase students' reading comprehension skills, the researcher and the teaching

collaborator first chose the best course of action. Due to its strengths as a teaching strategy, Directed Reading Thinking Activity (DRTA) was regarded as the finest method when taking into account the stages it suggests. The next step was to make lesson plans (see Appendix II). SK 5 and KD 5.1 on recount texts were chosen. The three core DRTA stages—predicting, reading, and demonstrating the prediction—were incorporated into the instructional designs. To aid in the implementation of DRTA, media like as presentation slides containing recount texts and printed copies of images associated with the texts were also generated. In order to promote students' participation in the teaching and learning process, the researcher and the teacher collaborator also made the decision to give rewards to students performing tasks properly. Last but not least, the researcher created three research tools: observation sheets, reading comprehension exams, and interview rules. The English teacher has evaluated all of the resources to guarantee that all of the test questions actually assess students' reading comprehension.

## **2. Action and Observation**

The researcher implemented the planned activity in the action stage after creating the plan. The researcher took on the role of the English teacher while the English teacher took on the role of the research collaborator during the action implementation in the classroom. Another researcher collaborator (the researcher's acquaintance) also contributed to the documentation of this stage of the investigation. Nevertheless, the action stages were carried out in accordance with the lesson plan created and revised following the cycle 1 reflection step.

The setting, behaviors, and perspectives of the students and the English teacher were recorded during the observation phase. Data were gathered to help with it. Before study cycles began, test 1 was first given at the preliminary stage. The researcher then moved on to cycle 1 when the test results revealed the reading comprehension issue. After DRTA

was introduced for the first time in the classroom, the reading comprehension skills of the students were assessed at the start of the first research cycle. The teacher collaborator then sat in the back of the room while the activity was being carried out in class, watching and recording what the instructor and students were doing on observation sheets. At the conclusion of cycle 1, test 2 was then administered. In response to test 2 results from the conclusion of Cycle 1, test 3 results from the conclusion of Cycle 2 of the research were used to determine if students' reading comprehension skills had improved.

### **3. Reflection**

The researcher and the teacher collaborator would reflect at the conclusion of each study cycle to determine whether or not another research cycle was required. All of the collected qualitative and quantitative data were examined during this phase. The researcher and the teacher collaborator decided if the action taken in an effort to address issues with students' reading comprehension ability was successful or not based on the analysis's findings. The failing strategies were then improved for the following study cycle. Nevertheless, the interview was conducted after cycle 2 was completed and the result of test 3 has been analyzed to reveal the students' improvement in aspects of reading comprehension. The interview result then demonstrates students' comments on the implementation of DRTA during the research cycles cumulatively.