

CHAPTER III

RESEARCH METHODOLOGY

3.1 Research Method

This research explores a single phenomenon (the use of paired reading strategy in teaching reading) by collecting detailed information. Thus, the case study was chosen to be the research design (Creswell, 1994). Merriam (1987) stated that this study involves collecting data in order to test hypothesis or to answer questions concerning the current status of the subject of the study.

Furthermore, this study has similar characteristics to a case study because of several reasons. First, it attempted to describe and interpret a particular phenomenon in a classroom. As stated by Stake (2008) that in a case study approach, a case can be a child, a classroom, or children, or an event. Second, like a case study, it was conducted in a particular case where researcher may act as a teacher (Emilia, 2009). Moreover, according to Merriam (1988), this study can be classified as an evaluative case study because it involves description, explanation, and judgment.

Furthermore, Merriam (1994) described that the case study research design is more concrete since it has relations with researcher' experience, and it is more contextual because the researcher's experience is based on context. The combination of qualitative and quantitative research designs in a case study enable wider options for the researcher to describe, analyze, to categorize and to interpret the data of the research. Considering those facts, the mix method design in form of a case study is relevant to this research because the study involves the collection and analysis of the data for the aim of exploring the exiting phenomena. According to Cresswell (1994), mix method research focuses on collecting, analyzing, and mixing both quantitative and qualitative data in a single study or series of studies. Its central premise is that the use of quantitative and qualitative approaches, in combination, provides a better understanding of research problems than either approach alone. It also makes a systematic and accurate description about the fact of particular objects based on some quantitative data.

3.2 Research Site and Participant

The subjects of this study were eighth grade students from a Junior High School in Bandung. There are three main reasons to select the site of the study. First, according to the pre-observation, the English teacher in the school used conventional

methods in teaching reading while she wanted to explore another method in teaching reading to make the students more active. Second, the writer is familiar with the teaching and learning process in this school, since he had taught as a part time teacher for a full semester, thus the writer will not find any difficulties in collecting the data. Third, the writer has maintained good and warm relationship with the teachers of the school, therefore the writer can get all the support he needed in order to conduct this research and will not find any difficulties to get permission needed in entering the site. According to Creswell (2012), it is necessary for researcher to have permission to enter a site and to involve people at the location of the study.

The participants involved in this study were an English teacher, a researcher from Indonesia University of Education and ten eight grade students consisted of 5 male and 5 female students. The students were divided into five pairs. Each pair consists of one student with high rated performance on reading (stronger reader) and one student with low rated performance of reading (weaker reader).

3.2.1 Sample

Creswell (2003) stated that the purposive sampling can be used in mix method research, he also emphasizes that purposeful sampling is an important point in both qualitative and quantitative research. The sample size is typically small in purposeful sampling, and it is generally defined as selecting units (e.g., individuals, groups of individuals, or institution) based on the specific purposes associated with answering a research study's question. Moreover, Maxwell (1997) defined purposive sampling as a sampling technique in which "particular settings, persons, or events are deliberately selected for the important information they can provide that cannot be gotten as well from other choices." The sample for this study will be some pair of students, spesifically five pairs of students. Each pair consists of one student with high rated performance on reading and one student with low rated performance of reading.

3.3 Data Collection and Research Instruments

The data collection techniques are important to develop full understanding toward the case and answering the research question, and research instrument as a tool in collecting the data should accommodate the whole information needed in the research study. Fraenkel and Wallen (1990) stated that "an instrument, after all, is a device used to gather data". Therefore, the researcher will use multiple instrument to ensure that the data collection cover all of the needs for this research.

The data collection techniques employed in this study were observations, interviews and written document analysis. Gall and Borg (2003) along with Merriam (1988) state that multiple instruments of collecting data which called triangulation can be used in mix method case study to improve the validity of the research. In line with them, Calabreses (2006) and Silverman (2006, cited in Emilia, 2009, p. 198) state that the triangulation, especially in qualitative study can enhance validity and “trustworthiness” of the research.

Moreover, Merriam (1988) conveyed that there are three suitable techniques of data collection for qualitative study, those are: (1) Classroom Observation (2) Interview, and (3) Written Document. Moreover, as this study administered mix method research, the quantitative data were collected through quizzes. Each technique of data collection will be described below.

3.4 Qualitative Instrument

3.4.1 Classroom Observation

The observations were conducted on Wednesday August 3rd & Thursday August 4th 2017. The type of observation in this study was participant observation since the researcher also took part as a teacher who implemented paired reading technique in teaching reading comprehension using narrative texts in the form of fairy tales. During the study researcher observes what people do and participates in the activities (Merriam, 1988).

Furthermore, McMillan and Schumacher (2010) state that participant observation enables the researcher to get participants’ perceptions of events and process expressed in their actions, feelings, thought, and beliefs.

Each observation lasted for 30 minutes. The researcher wrote a journal and field notes during the research for the observation data, and to assist researcher in taking note during the activities, as Van Lier (cited in Emilia, 2009, p. 198) state that in conducting participant observation “the researcher also wrote observations notes immediately after each session”.

An observation sheet used in this instrument, as follows:

Sessions	Activities	Yes	No	Notes
Pre- activity (Warm up)	The students were motivated and engaged in the activity			

	The students were interested in paired reading activity			
Main activity (Paired Reading activity)	The students understood the instruction			
	The students were enthusiastic to demonstrate paired reading strategy and finished a set of paired reading session using narrative texts in a form of fairy tales			
	The students faced some difficulties on accomplishing the task			
Post activity (Quiz & Closure)	The students are able to explain the content of the text in paired reading session			
	The student are able to answer some questions related to the narrative text in paired reading session individually.			

Table 3.1 Observed Reading Situation (adapted from Cooperative Learning in the Classroom, Johnson, D.W., Johnson, R.T., Houbec, E. J., 1994)

In conducting reading activity, the researcher took the following steps:

- a) Pre activity (Warm up and pairing session)

Teacher started the lesson by telling the students about what they were going to learn. During this session the researcher presented some activities to motivate the students and explain the concept of reading comprehension. The teacher then developed students' understanding about narrative text and paired reading strategy. In this stage the teacher provided

a game in each meeting to introduce some key words related to the topic given. Teacher also used some pictures to support learners' visual needs.

Furthermore, the teacher informed that he will pair each student with the other without explaining that those pairs consisted of one stronger reader and one weaker reader. This aimed to make all students motivated since it might be decreased their motivation if the teacher told them about the reason of choosing. After all of the students paired, the teacher then asked some question related to the material given (see Appendix A) randomly, and the pair would be rewarded based on selected members' performance. This aimed to make all students prepared themselves to answer some questions related to the material.

b) Main activity (Paired reading session)

After explaining the steps and ensure that all the students grasped the whole instruction clearly, the teacher then starts the paired reading session while assisting the whole activity. Each pair in the session received the exact same texts to ease the research evaluation later (see Appendix A). The teacher would ensure that the stronger reader in each pair helped their teammates in comprehending the material. This activity lasted for 20 minutes. Because there are many versions of paired reading activities that can be applied to students, it is important to stick to one particular paired reading scheme to obtain valid data. For this research the Peabody CWPT (class wide peer tutoring) has been selected as the benchmark for the data collection and the making of research instruments.

This paired reading scheme has been selected due to it's flexibility and availability, this technique also known as one of the most modern paired reading scheme that can be applied to any students of any ages. Mathes, Fuchs, and Fuchs from George peabody College of Vanderbilt University are the first to introduce this scheme in 1998 (Mathes, Howard, Allen, and Fuchs, 1998).

The detailed steps of this CWPT paired reading activity can be seen below:

ACTIVITY	DURATION	STEPS
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Partner Reading with Retell	10 Minutes	<ol style="list-style-type: none"> 1. The first reader reads aloud for 3 minutes (maximum) 2. The second reader reads aloud the same text for 3 minutes (maximum). 3. The first and second reader discussing the major events of what has been read for 4 minutes.
Paragraph Shrinking	10 Minutes	<ol style="list-style-type: none"> 1. For 5 minutes (maximum), the first reader reading new story, stopping after each paragraph to summarize the paragraph. 2. For 5 minutes (maximum) the second reader continues with new text, summarizing each paragraph.

Prediction Relay	10 Minutes	<ol style="list-style-type: none"> 1. Continuing with new story, the first reader reads aloud for 5 minutes (maximum), stopping after each page to check the previous prediction, summarize the page, and predict what will happen on the next page. 2. The second reader continues to read new text aloud for 5 minutes (maximum), stopping after each page to check the previous prediction, summarize the page, and make a prediction.
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Table 3.2 CWPT Paired reading activities (Adapted from Mathes, Howard, Allen, & Fuchs, 1998)

This scheme will be applied in this research considering that this technique is well-suited for more capable students at older age (this research involves students within the age of 16-17 years old). The scheme is simple yet so powerful even with the minimum setup. However, to ensure that the students will not easily be demotivated, the researcher replace the word ‘stronger reader’ to ‘first reader’ and ‘weaker reader’ to ‘second reader’, with this the students will not find out who the stronger or weaker reader is.

c) Post activity (Quiz and Closure)

After the paired reading session ended, teacher distributed worksheet and gave students adequate time to complete the task. Students were not allowed to work together, each student must show what they have learned as individual. After that

teacher informed the quiz score and team score. Then determined the team improvement points by computing the average improvement points of team members. This stage also used for teacher to give reward for the team with the highest score.

To analyze students' responses toward the implementation of paired reading strategy, the following code were used:

Classroom activity	Student's responses
Pre-activity	Enth : Enthusiastic Int : Interested Re : Reluctant Dis : Distracted Sile : Silent Con : confused (+)AS : longer attention span (-) AS : shorter attention span
Main activity	
Post activity	

Table 3.3 List of students' responses

3.4.2 Interview

According to Boyce and Neale (2006), interview is the process of collecting the required information with small respondents to explore their perspective on a particular program, situation, or ideas. Generally, interview is one-to-one method using data collection which involves an interviewee and an interviewer in a session of discussing specifics topics. It also known as a conversation with purpose (Hennink et al, 2013). Interview in this research aims to provide more complete picture of what happened in the research and why. This method is expected to give much more

detailed information than other data collection method. Boyce (2006) says that the interview provides a more relaxed atmosphere to collect the information needed by the researcher as people seem to be more comfortable having conversation directly than filling out a survey or questionnaire.

Interview is longer than any other type of data collection techniques because the interviewer asks several questions to investigate the desirable answer from the interviewee (Rachman, 2016), as a result of the longer duration of the interview, interview also provides much more information than any other type of data collection techniques (Boyce & Neae, 2006:3). To obtain further information related to the research questions the interview was conducted to ten students who were participated in the paired reading activity. It was applied in order to gain in-depth information which could not accessible from observation (Alwasilah, 2011). The interview used in this study was semi-structured interview since it was guided by a list of questions (Merriam, 1988).

The interview was conducted based on Mitchell (1993), here are the questions:

1. What is your opinion about learning English so far?
2. Which skill is the most difficult for you? Why? How about reading?
3. What is your favorite learning technique? How about paired reading?
4. What do you think about paired reading strategy? Is it difficult to be applied?
5. Have you ever heard about paired reading before?
6. Does paired reading strategy help you in understanding narrative text?
7. Does reading narrative text is interesting? Why?
8. In your opinion, how does paired reading strategy help you to improve your reading comprehension ability?
9. Do you enjoy learning in pair and using paired reading strategy?
10. What are the difficulties that you have faced in learning reading using paired reading strategy?

The interview was conducted after the observations were finished. It was delivered in Bahasa Indonesia (see Appendix) to make the respondent easier to answer and avoid misunderstanding. The interview aimed to gather more individual and personal experience from the participants.

3.4.3 Questionnaire

Two set of questionnaires in the form of open-ended and close-ended were given by the researcher to the students. Two types of questionnaires were given in order to get the original perception about the students' view and response toward the implementation of paired reading strategy in teaching reading comprehension. The likert scale is administered to give scores to the questionnaire, the scales use fixed choice response formats and are designed to measure attitudes or opinions (Bowling, 1997; Burns, & Grove, 1997). The researcher guaranteed the anonymity of the participants to reduce social pressure, and thus may likewise reduce social desirability bias (Paulhus, 1984).

The scoring scale for each question can be seen in the table below:

Positive Question (+)		Negative Question (-)	
Answer	Score	Answer	Score
Strongly agree	4	Strongly agree	1
Agree	3	Agree	2
Disagree	2	Disagree	3
Strongly disagree	1	Strongly disagree	4

Table 3.4 Scoring rubric to questionnaire (adapted from Sugiono, 2012)

3.4.4 Written Documents

Written documents were used to gather the data in order to answer the research questions. As suggested by Guba and Lincoln (1981) that it is appropriate for the researcher to use document as reserach instrument since they were relevant. Written document may present in the form of public and private records that qualitative researchers obtain about the site or participants in a study, or in general written frm such as newspaper, minutes of meetings, personal journals, and letters. (Cresswell, 2008). Written document in this research divided into two categories; pre-existed written document and researcher's field notes. The pre-existed written document consists of the assessment rubric of the English subject acquired from the English teacher of class VIII A SMPN 45 Bandung. The rubric will be used to divide ten students involved in this research into two groups, a group consists of five students with the highest score in reading comprehension performance and a group consists of five students with the lowest score in reading comprehension performance. Here are the steps to separate between stronger reader and weaker reader, according to Gerdes (2000):

NO	STEPS	NOTES
1	Assessing the reading abilities of your English class	The reading ability assesment will be based on students performance in the English subject for the whole semester. Therefore, the researcher will need help from their English teacher to acquire the student's assesment
2	List the students in order from highest to lowest according to reading ability.	Written document in a form of teacher reading assesment will be used to determine student's list
3	Divide the list in half	There is possibility that the total student in the classroom is in odd number. In such case, researcher will cross out one student at the bottom of the list
4	Place the student in the top slot of the first list with the student in the top slot of the second list; continue until all students have been assigned a partner.	-
5	Select 5 pairs of students to be involved in the research	Because of the limitations of the research, the number of students involved in this research are 10 students only, divided into 5 pairs. The pairs will be selected purposively using purposive sampling method
6	Adjust partners as necessary, being sensitive of students with special needs.	In case one or more individuals of the selected pair of students need special attention, the researcher

		will adjust the condition based on student's needs.
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Table 3.5 How to determine stornger reader and weaker reader (adapted from Gardes, 2000)

The pre-existed document also including the syllabus of English lesson, and student's English assessment rubrics.

The researcher's field notes consist of research journal, students' worksheets, students' improvement points, teams' score, and researcher's notes, these documents are used to describe each stage of the study in detail and note the difficulties faced by the participants during the research. The field note will also be used in the data analysis in this study along with the lesson plans, appendices, students' checklist, and video transcription. The data were collected in two weeks of meeting.

3.5 Quantitative Instrument

3.5.1 Quiz

In implementing paired reading technique, quiz score sheet was employed to measure students' reading improvement. This was very useful to support the data in order to investigate the benefits of paired reading technique in teaching reading comprehension. The sheet can be seen in the following table:

Quiz Score Sheet

Team's Number _____

Team members	Base score	Quiz score	Improvement Score
Total team score			
Team average			
Team award			

Table 3.6 Quiz score sheet (Slavin, 1995:81)

To calculate team summary sheet the researcher followed the steps proposed by Slavin (1995), as follows:

- a. Determining students' base score which is taken from the students' previous reading score. Here is the instance of determining initial base score:

Previous Quiz	Initial Base Score
Quiz 1	84
Quiz 2	68
Quiz 3	71
	Average three test scores
Arief's score	$223/3 = 74,33$
Arief's base score	74

Table 3.7 Determining students' initial base score

- b. Calculating students' quiz score
 c. Calculating students' improvement score based on the certain criteria, as follows:

Quiz score	Improvement points
More than 10 points below starting score	5
10 points below to 1 points below starting score	10
0-10 points above starting points	20
More than 10 points above starting points	30

Table 3.8 The criteria of improvement point

- d. Calculating team score using the following formula:
Team score: total team score / 2
 e. Three levels of award are given based on average team scores, these are important to motivate the students during the research. The awards will be given based on the following achievements:

Criterion (team average points)	Award
10-19	Good team

20-24	Great team
25-30	Super team

Table 3.9 The criteria of awards

As mentioned in the previous sub-chapter, a set of close-ended questionnaire was administered as an instrument for this study, the following formula is used to find out the total score of the answer of questionnaire for each statement:

$$S = N \times \text{Questionnaire score}$$

N: *Number of Cases* (the amount of respondents)

S: Score

To get the final score of the questionnaire, researcher must know the highest score (X) and the lowest score (Y) for each item in the questionnaire. The followings are the formula to find out the highest and the lowest score for questionnaire items.

$$X = Hs \times N$$

Hs = The highest point of the scale

N = Number of respondent

$$Y = Ls \times N$$

Ls = The lowest point of the scale

N = Number of respondent

To ease the interpretation of the data, the total score then converted into percentage using this formula:

$$P = Ts / X \times 100$$

P = Percentage

Ts = Total score

X = The highest score of the scale

When the percentage of the questionnaire score is revealed, a specific set of interval score is used to classify the respondent's answers into categories. Usually, classifying is done by giving codes with numeral into each answer. This formula is applied to find out the interval of the total percentage:

$$I = 100 / N$$

I = Interval score

N = The number of Likert scale

After calculating at the result of all the students' answer, judging by the total score of the questionnaire, the result can be classified to:

Classification of score range	Criterion
0% - 24,99%	Not favorable

25% - 49,99%	Less favorable
50% - 74,99%	Favorable
75% - 100 %	Very favorable

Table 3.10 Interval score interpretation (in percentage)

The result of the calculation then interpreted in accordance with the data on each questionnaire item.

3.6 Data Analysis

After collecting all the data needed for this research, the data were analyzed by mix method data analysis. In order to gain valid and reliable data, the triangulation was employed in this research (Gall and Borg, 2003). The data were interpreted and analyzed based on the information from both qualitative and quantitative data. The analysis from each instrument will be presented in a form of descriptive explanation. Moreover, the quantitative data employed in this research is expected to expand the understanding and to confirm the findings from qualitative sources (Creswell, 2003). The data in this research were analyzed using the framework proposed by Slavin (1995) and related to the the implementation of paired reading in this research, researcher also used some theories proposed by Topping (2014) and Gardes (2000).

3.7 Concluding Remark

This chapter has presented the research method of the study which covers; research method, research site and participant, data collection and research instrument, and data analysis. This study aimed to investigate the benefits of the use of paired reading technique in students' reading skills, and to discover their response toward the use of paired reading strategy in the classroom. Case study was employed in this study as the research design. In collecting the data needed for the study, researcher used four instruments which were observation, questionnaire, interview, and quiz. Further result from this chapter will be discussed in the next chapter.