

CHAPTER III

METHODOLOGY

This chapter discusses the method of the study which is related to the research design. This study was intended to investigate metacognitive reading strategies which were employed by the students in comprehending reading materials and the metacognitive reading strategies which were considered the most helpful to be developed by the university students especially in answering questions in reading comprehension test as stated in chapter I. The discussions in this chapter are focused on research site, participants, data collection and data analysis.

3.1 The Research Design

3.1.1. Research Site

The study was conducted at one English Education Department in Cimahi. It was chosen as the setting of the study because it was easy to get the access and communicate with the participants involved in this study.

3.1.2 Research participants.

The participants of this research were 20 third-year students. The researcher took them as the participants of the study because they have experience in doing reading activities as they have learned Reading I, Reading II and Reading III. In selecting the participants, the study used purposeful sampling to gain the important information from research participants (Alwasilah, 2009:146).

The participants were categorized into high achieving students and low achieving students. The categorization of high and low achieving students was derived from the students' GPA scores in Reading I, Reading II and Reading III.

3.2. Data Collection

Historically, metacognitive strategy use in young children has been very difficult to assess because some cognitive knowledge and processes are tacit and inaccessible (McTavish, 2008). Further, McTavish (2008) says that educators have used a variety of tools to assess strategy use in young children. These methods include selfreport surveys, interviews, think-aloud protocols, and stimulated recall (cited in McTavish, 2008). Moreover, it is essential to note that in qualitative research the use of multiple methods is highly recommended because one method yields different types of information from another on the same event (Kusumarasyati, 2006). Therefore, this study used triangulation in order to collect the data. They are elaborated detailed as below.

3.2.1. Observations through Think-Aloud Sessions

The first method for data collection was observing all the participants through think-aloud sessions. Olson et al., (1984) state that using think-aloud technique is one of the most effective ways to assess higher-level thinking processes and that it could also be used to study individual differences in performing the same task (cited in Charters, 2003).

The procedure of Think-Aloud session was used to identify the students' metacognitive reading strategies as proposed by Aengpangpaow (2008). In this procedure, the researcher used

the same questions as the ones she used in the interview to ask the participants to explain what their reading strategies were, how they used them, and why they chose a particular strategy.

In the think-aloud session, the participants were asked to think aloud in front of tape recorder as they read the text and did the test. There were three texts given adopted from Longman Preparation Course for the TOEFL Test (Phillips, 2000). The test of TOEFL was chosen under consideration that the validity of reliability of the test has been testified.

The texts were chosen after the level of difficulty in each text was analyzed according to Fry system. Fry readability test for level of the text states that if the length of words and sentences is about fewer than 5.5 and above 160, the text belongs to university text book; meanwhile, if the length of words and sentences is about fewer than 7.1 and under 160, the text belongs to secondary text book; however, if the length of words and sentences is above 7.1 but under 140, the text belongs to elementary text book (Anne, 2011)

As the results of Fry readability test for the three texts chosen in the present study, text 1 has 3.15 sentences per 100 words and 181 syllables per 100 words; text 2 has 4.2 sentences per 100 words and 161 syllables per 100 words; and text 3 has 4.3 sentences per 100 words and 188 syllables per 100 words. This means that the three texts used for TAPs procedure in the present study are valid and reliable to be the instruments.

The level of the three texts was divided into the easy, middle and difficult texts. The text consists of 25 multiple-choice items including the questions about the idea of the passage, directly answered questions, indirectly answered questions, vocabulary questions, and overall review questions.

The questions asking about the idea of the passage are available at question number 2 and 8. Questions dealing with directly answered questions are available at number 4, 9, 11, 13, 19,

and 21. Then, questions dealing with indirectly answered questions are available at number 1, 3, 7, 16, 17, and 23. Meanwhile, being greater part among the 25 items, the vocabulary questions are available at question number 10, 12, 14, 15, 18, 20, 22, and 24. Finally, the overall review questions can be found in question number 5, 6, and 25.

The Think-Aloud Protocol process took duration of 36 minutes for each respondent. They were given eleven minutes to finish every text under consideration the calculation of time in the real TOEFL test for every reading text is seven minutes and five minutes additional time upon the conversation with the researcher (Anne, 2011). Furthermore, the researcher interrupted every time the respondent answered the items with the purpose to make it clear those were not recorded by the audio-tape recorder as well as to make sure the strategy used by the respondent as reference in data analysis later. Then, think-aloud protocols were analyzed qualitatively. First of all the reading strategies used by the participants were identified. Then, the protocols were transcribed and coded to analyze the metacognitive reading strategies used and their contribution to help students grasp the understanding of the texts.

However, as Ericsson and Simon (1980) stress, Think-Aloud data from working memory will always be incomplete and exclude a number of thought processes which are not held in working memory long enough to be expressed verbally (cited in Charters, 2003). Yet in this research study, some of the participants had difficulty with Think Alouds. Stratman and Hamp-Lyons (1994) call it the “reactivity problem”. This is the notion that something can happen when participants are required to do Think-Alouds while carrying out a task. They suggest there are five factors that may cause reactivity in concurrent verbal protocols:

1. experimental task directions to subjects that elicit an inappropriate level of verbalization;
2. limited short-term memory capacity for talking and attending at the same time;
3. hearing one's own voice;

4. learning that occurs because thinking out loud increases subjects' critical attention to their activities; and
 5. direct or indirect experimenter influence through verbal or nonverbal cues
- (Stratman&Hamp-Lyons, 1994:95 cited in Branch, 2000)

Because of the limitation of Think-Aloud Protocols, it is needed to obtain the data from other methods providing valuable resources to validate the results of the main method. Moreover, it is essential to note that in qualitative research the use of multiple methods is highly recommended because one method yields different types of information from another on the same event (Kusumarasdyati, 2006). Therefore, this study also employed interview and reading journals.

3.2.2. Interview

Qi (1998) suggests that a follow-up interview may also allow the participants to validate the researchers' interpretation of their think-aloud utterances; this would be particularly important when some of those utterances may be in the participants' first language (cited in Charters, 2003). Qualitative research interviews focus on "understanding the complexity of human world by means of conversations" (Wang, 2002). This technique is a powerful investigative tool and helps researchers produce very rich and valuable data (Wang, 2002). It facilitates access to peoples' experiences and their conceptions of experiences. Furthermore, interviews help the participants feel confident in providing information and assist a researcher in approaching the participants' cognitive reading process. As a result, in this study, interviewing was employed as an instrument in order to obtain information on the metacognitive reading

strategies of the participants. The participants of the study are interviewed on their everyday use of metacognitive reading strategies by being asked 16 open-ended interview questions as guidelines. Open-ended question permits the persons being interviewed to respond in their own terms (Patton, 1987:122).

The interviewers in this study were 20 third year students which were categorized into high and low achieving students. The researcher used tape recorder to record the data from interviews because a tape recorder is a part of the indispensable equipment of evaluators using qualitative method (Patton, 1987:137). The researcher also used note-taking during the interview process. It is also in line with Patton (1987) who states that when a tape recorder is being used during the interview, notes will consist of primarily of key phrases, list of major points made by the respondents, and the key terms or words shown quotation marks that capture the interviewee's own language (Patton, 1987:138). All data were transcribed by the researcher immediately after each interview. To prevent any ambiguities in the transcription, the researcher asked the participants to clarify the data over the phone.

3.2.3. Journal Entries

All participants were asked to write a journal to describe their strategies when they were reading academic test material. The purpose of writing these journals was to investigate if the participants used the metacognitive strategies they mentioned in the interviews and think-aloud sessions (Aegpongpaowa, 2008). The consistency of the findings among these three instruments was later examined.

3.3. Data Analysis

Coding is an effective method to analyze the data of verbal protocols such as interviews and observations (Green, 1998 in Aegpongpaowa, 2008). Further, he said that coding is “the relationship between what are termed task-independent process categories and performance on the task in question”

The data collected for this study were coded into three parts: the metacognitive reading strategies which were frequently employed by high and low achieving students in comprehending reading materials, the metacognitive reading strategies which were considered the most helpful to be developed by the university students especially in answering questions in reading comprehension test., and the reasons why they used the strategy.

3.4. Chapter Summary

This chapter has discussed the research design that consists of research site and research participants, data collection and data analysis. In collecting the data, the study used qualitative methods such as interview, think-aloud protocols and journal entries. The data collected for this study were coded into three parts according to the research questions.



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A Study On The Use Of Metacognitive Reading Strategies In Comprehending Reading Toefl Test Materials Among University Students

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