

CHAPTER FIVE

CONCLUSIONS, LIMITATIONS OF THE STUDY AND RECOMMENDATION FOR FURTHER RESEARCH

Serving as the end of the thesis, this chapter will describe the conclusions of the study resulted from all the data discussed in the previous chapters, as well as the limitations of the study and recommendation for further research.

5.1 Conclusions

This research had scrutinized the teaching of critical thinking in reading subject by using the infusion approach. Based on the findings discussed previously in Chapter 4, the selected approach can be considered successful in enhancing students' potential in thinking skill into reading.

Data from all sources indicated that the students could grasp the concept, criteria, skills and dispositions of critical thinking focused in the study and apply them in reading the texts. Despite of the improvement and development the students had shown during the teaching program, there were also some challenges, problems as well as limitations of the study (see following section).

With respect to the issue of transfer in critical thinking, the majority of the respondents were able to demonstrate the transfer of critical thinking into their everyday life as disclosed in the observation, journal and interview. In fact the issue of 'transfer' has been given more emphasis in critical thinking instruction as highlighted by Norris

and Ennis, 1990; and Fisher, 2001. Even one prominent figure in critical thinking, Stenberg (1989) identifies this particular issue as the fundamental question in the teaching of critical thinking.

The students had also developed the self-corrective and self-reflection in the discussion, this leads to a fact that they had made some remarkable progress in metacognition or “thinking about your thinking” (Paul, 2000) as one of the advance criteria in critical thinking (Fisher, 2000). All the findings lead to a conclusion that critical thinking is a learned ability that should be taught in various subjects, in this case in reading (see for example Schafersman, 1991; Lipman, 2003; Norris and Ennis, 1990). Even Lipman has explicitly stated that “teaching a discipline without attention to critical thinking has become equivalent to not teaching it at all” (2003: 209).

Regarding the challenges and problems faced by the researcher in implementing the teaching program as probed in the second research question, findings revealed at least four major difficulties: (1) time allocation, (2) some of the materials in teaching critical thinking that were considered difficult for certain students, (3) lack of students’ initiation during the discussion, and (4) the different levels of academic achievement among the respondents.

First, the time allocated in the teaching program posed a certain problem as well as challenge for the researcher to familiarize the skills and dispositions of critical thinking to the students. The time indeed was inadequate as the duration of the instruction of critical thinking requires at least one semester or even a year of instruction, some even said that critical thinking is a life time instruction (Stenberg, 1987; Beyer, 1997). Furthermore, from a critical reading perspective it was also insufficient as critical reading

skill is a developmental process and cannot be taught just in several sessions (Varapsad cited in Emilia, 2005).

Further, within a limited time there must be other aspects, skills and disposition of critical thinking that were not fully covered in the teaching program and thus left room for next investigation. However with all the limitations, the students gained a marked improvement in their thinking abilities focused in the study and applied them in reading the texts. The skills and dispositions emerged during the teaching program, among all, were students' abilities to differentiate facts and opinions, analyze arguments, interpret the author's intended meanings, formulate questions, support opinions with convincing reasons, seek to clarify ill-defined concepts, being open-minded, etc. Additionally, findings also showed that students were able to read critically, following the steps of analysis in critical reading as well as playing different roles of reader that are important for critical reading to take place.

In addition to the challenges and problems in implementing the teaching program, the findings demonstrated that some of the texts were considered relatively difficult for some of the students as reflected in the interview and students' journal. These difficulties may be the result of the students' academic achievement that varied from one another. In order to cope with this problem, the researcher firstly negotiated the materials with the students, provided the glossary for each of the text and allowed at least one day for students to read before discussing them in the classroom.

Another source of problems resulted from the typical mold of discussion in the teaching program that required students to participate in discussing the texts. Throughout the teaching program, there were some sessions where students seemed of lacking the



initiation and enthusiasm to start the discussion. To overcome this problem the researcher once again ignited their interests by following the principles of a thoughtful classroom to enhance critical literacy as described in Chapter 2, Section 2.5.

With these conclusions, it is clear that teaching critical thinking entails embarking on high adventure, “a journey that is full of unanticipated challenges and unexpected triumphs” (Chaffee, 2000: xvii). In fact, it could be one of the most invigorating and rewarding experiences for any teacher and researcher.

5.2 Limitations of the Study

There are many limitations of this research, in particular it deals with the time allocated during the teaching program. As mentions in the previous chapters, the time was very limited and insufficient for critical thinking and reading to take place optimally. The researcher is aware that in such a short time that must be a lot of aspects of critical thinking that still need further investigation.

Another limitation of the study is to do with the role of the researcher who acted as the teacher as well. In this study the researcher involved in applying and evaluating her own teaching. Accordingly, there might be a potential loss of objectivity in every stage of the researcher as described by Emilia (2005).

Tackling on this problem, the researcher had applied many strategies. First, the study used multiple sources of evidence through multiple data collection techniques that allowed for a triangulation of different sources of information. For example in classroom observation, the researcher invited her colleague to observe the class as well. Next, the

students' journals which were collected after each of the sessions enabled the researcher to obtain data and at the same time to do on-going data analysis.

5.3 Recommendation for Further Research

Findings of this study are not to be generalisable to other settings, nonetheless based on these outcomes it is recommended that critical thinking should be taught in all subjects, using various approaches that fit into the research sites.

However without sufficient teacher training, this similar teaching program is hardly to succeed. How critical thinking can be taught requires an understanding of the cognitive work of individual teacher (Grant, 1988). Accordingly, teacher trainer should equip the teachers-to be with adequate models of teaching critical thinking in various subjects as many experts and educators believe that critical thinking can be applied in all disciplines.

Regarding the ecological validity, further researcher is suggested to scrutinize the teaching of critical thinking in the typical Indonesian school setting, such as teaching that involves a large number of students. This present study, due to the time limitation, had set up the classroom for the purpose of the investigation.

With respect to multiple sources of data, this study had obtained data on students' critical thinking based on observation, interview, journals and written test to control the quality information on students' thinking in reading. However regarding the written test, any evaluators have more flexibility to decide on one particular test to be used in their program. This study had employed a constructed-response test as explained in the previous chapters over its advantages from other tests like the multiple choice test.

Further investigators are also recommended to employ other commercially available critical thinking test with enough consideration on the appropriateness of the test for intended purposes. Other types of experimental study such as quasi or true experimental study will be expected to give color to the process as well as the result of the next investigation.

