

## CHAPTER V

### CONCLUSIONS, LIMITATIONS AND RECOMMENDATIONS

This chapter presents three main points. The first is the conclusion of the study. The second is the limitations of the study. The third is the recommendations for teaching and learning practices as well as for further research on critical thinking aspects in students' texts.

#### **5.1. Conclusions**

In conclusion, the Discussion texts analyzed in the present study show critical thinking aspects covered in this study. Though some texts do not show complete aspects of critical thinking covered in this study, overall critical thinking aspects have been demonstrated across the texts and realized by the students. These critical thinking aspects cover critical thinking elements and critical thinking dispositions.

In regards to critical thinking elements covered in the present study, which cover *issue, argument, reason, fact, opinion, and conclusion*, the textual analysis which is supported by the interview results displays critical thinking elements. High Achiever Text shows more and varied elements compared to Middle Achiever Text and Low Achiever Text. In addition, despite High Achiever Text demonstrates more and better elaborated arguments compared to the others, all texts analyzed still lack well-elaborated arguments. Many arguments were presented alone without elaborated by reason, fact, and opinion.

Moreover, the texts analyzed supported by the interview result show aspects of critical thinking dispositions, which cover *attempt to take a position, to be well-informed, to be precise, to be relevant, and to be open-minded*. High Achiever Text displays better attempts to be open-minded, compared the Middle Achiever Text and Low Achiever Text. Furthermore, the texts analyzed still need improvements to be well-informed writing.

In terms of the relationship between students' writing process and critical thinking aspects in students' opinion, it is concluded that students' writing process contribute to students' critical thinking aspects. These contributions are found between six stages of writing process i.e. *prewriting*, *drafting*, *rereading*, *peer-revision*, *self-editing* and *writing the final draft* and critical thinking aspects covered in this study. Students believed that their writing process contributes to critical thinking aspects covered in the present study. From the data, it was revealed that the more students got close to the final draft, the less they show critical thinking aspects. In fact the beginning stage, the prewriting stage, had the most contributions to critical thinking aspects covered in this study. This stage contribute to all critical thinking elements and dispositions. Hence it is concluded that this stage is important to the development of students' critical thinking aspects.

## **5.2. Limitations**

The present study has some limitations which can be improved for better studies in the future. This includes the limitation in terms of critical thinking aspects used in this study, which only cover critical thinking elements and dispositions. These two aspects limit the present study, despite the fact that the literature shows several other aspects such as critical thinking skills (see Glaser, 1941: 5 as cited in Fisher, 2001). In addition, the critical thinking elements and dispositions used in this study are only some of many other critical elements and dispositions available in the literature. The selection of these aspects are based on the suitability to the genre of the text focused in this study.

The limitation also covers the textual analysis, which probably raises different analysis by different researchers, particularly for fact and opinion element, as Cottrell (2005) suggests that people's opinions can vary about what is a fact and what is an opinion. However the present study has attempted to promote the analysis validity by establishing clear differences between fact and opinion synthesized from theories (see Appendix 2) and triangulating the textual analysis to the interview results (see Section 4.1.2).

Another limitation of this study is also related to the data collections. In understanding students' opinion on the contributions of students' writing process to critical thinking aspects, this study only conducted an interview to the students without observing the students' writing process. Observing the actual writing process might provide richer and more reliable data. Therefore the data will better capture the contributions of students' writing process to critical thinking aspects.

Additionally, this study only takes students' final draft in writing to be analyzed. It is better if all students' writing drafts and writing process are analyzed so that students' improvements in writing and students' critical thinking can be better captured. It is because, by nature, critical thinking is a process, not an outcome and it can never be finished in some final, static manner (Brookfield, 1987).

Furthermore, this study has time limitation. Capturing students' critical thinking comprehensively is difficult (see Brookfield, 1987) and it requires a long period of time. Time is very critical in measuring critical thinking. This study cannot capture the whole critical thinking aspects since to do so needs a long period of time.

The last but not the least, this study is limited to give insights on critical thinking aspects reflected in the students' texts. This study is not sufficient to capture students' weaknesses and challenges in critical thinking in writing. Understanding these weaknesses and challenges will give valuable information for helping students improve their critical thinking.

### **5.3. Recommendations**

The findings of the present study offer several pedagogical implications and considerations for further research. In terms of pedagogical implications to consider, firstly, even though the findings in the present study reveal that the students' writings have demonstrated critical thinking elements covered in this study, improvements are still required in relation to the elaboration of arguments in the Discussion text. To follow Martin (1985 as cited in Emilia, 2005) who states that a mature example of a text is normally one which attempts to provide more than one argument but each

argument is elaborated to form a paragraph, then it is suggested that the teaching and learning processes make sure that the authors of a Discussion genre write well-elaborated and mature arguments.

Secondly, as the findings of this study show that though critical thinking dispositions are demonstrated in the texts, the texts still lack attempts to be well-informed. Therefore, the teaching and learning process should inform, teach, and make sure that the students' writings are well-informed.

Thirdly, students should be made aware of the existence of critical thinking aspects in writing. Hence, they can pay attention to these aspects when writing, particularly in the arguing genre. By realizing these aspects, the students will possibly evaluate their own writing and set their standard based on these critical thinking aspects. Hence it is expected that the students are able to show better critical thinking aspects in their writing.

Next, it is recommended that critical thinking be taught and practiced. It is because critical thinking is teachable and transferrable (see Brookfield 1987; Feng, 2013). Since writing is a process through which students can practice and apply their critical thinking since it requires them to collect, analyze, synthesize and evaluate information (see Paul, 1990; Liaw, 2007; Bekurs and Santoli, 2011; Vyncke, 2012; Sharadgah, 2014), explicit teaching and practicing critical thinking through writing is recommended.

The last but not the least, the findings of this study suggest that pre-writing stage has great contributions to students' critical thinking aspects. Therefore, teaching writing should include the pre-writing stage and other stages should be improved so that students practiced their critical thinking in every stage of their writing process.

In terms of recommendations for further study, the present study offers four recommendations. Firstly, as critical thinking aspects covered in the present study are only limited to critical thinking elements and dispositions, further studies can explore other aspects of critical thinking. In addition, impending studies can investigate critical thinking elements and dispositions which are not explored in the present study.

Secondly, the text genre focused in the present study is only a Discussion text. More exploration on critical thinking to other genres is recommended as it enriches studies on critical thinking in text genres. Therefore it will be useful to understand critical thinking in various text genres as it can help writers to be better critical thinkers.

Thirdly, as the present study only focuses on the critical thinking in writing, a comprehensive study for each language skill, not only in writing, but also in listening, speaking, and reading is considered to give valuable information especially for learners and teachers.

The last but not the least, the limitations of this study offers recommendations for further study to be more comprehensive. Studies that capture students' critical thinking is suggested to use observation to students' learning, involve students' writing drafts and writing process, capture students' weaknesses and challenges in thinking critically and involve a long period of time.