CHAPTER V

CONCLUSIONS AND RECOMMENDATIONS

The findings and the discussion regarding the incorporation of debate in inquiry-based teaching and the students' improvement in their higher- order thinking skills have been presented in the previous chapter. In this chapter, the conclusion of the discussion is disclosed. In addition, several gaps that the study did not cover are addressed and based on them, recommendations for further research are drawn.

5.1 Conclusions

There are four significant conclusions that can be inferred from this study. First, debate has a notable role in inquiry-based teaching. Inquiry-based teaching approach is known for its discovery learning that is considered effective in promoting higher-order thinking. The incorporation of debate in this approach engages students in an interaction that allows them to exchange their discoveries in a challenging and meaningful way. Interaction itself is deemed as an essential factor that contributes greatly to the development of student's higher order thinking skills (Ryan & Laurent, 2012). Therefore, when debate is incorporated in inquiry-based teaching approach, it is expected that students' higher-order thinking skills can be improved greater. It is also suitable to be employed in language classrooms since it stimulates the students' language competence as well.

Second, all elements of debate go hand in hand with all levels of higher order thinking skills. There are three elements of debate namely; argument, refutation, and problem solving. Each of the element correlates positively with certain level of higher-order thinking skills. By practicing making arguments, the students hone

their analytical capacity, by making refutation, they improve their evaluative capacity and by practicing solving the problems presented in the debate, they polish their creative capacity. Although it is found in this study that the students' higher-order thinking skills can be improved by debate, the improvement varies from level to level. The students show the most improvement of their higher-order thinking skills at Evaluate level. Their improvement at Evaluate level is attributable to the debate activity that has them to judge and evaluate their opponents' arguments in order to be able to formulate strong refutation. On the other hand, the students show the least improvement at Create level which might be caused by the difficult nature of the level that obliges them to produce solution with their existing knowledge. They actually managed to make good solutions however, they lacked explanation and evidence to show that their solutions were effective. Nonetheless, their improvement at all levels of higher-order thinking skills confirms that the incorporation of debate in inquiry-based teaching can bring about positive impacts for their development of higher-order thinking.

Third, there are four cognitive processes employed by the students in debate activity namely; organizing, critiquing, generating and planning. Organizing helps students build "systematic and coherent connections among pieces of presented information", critiquing involves noting the positive and negative features of something and making judgments based on them, generating deals with making multiple solutions and planning involves "developing a plan for solving the problem" (Anderson & Krathwohl, 2001, p. 81-87)

The cognitive process of organizing was observed when the students were attempting to formulate arguments. This cognitive process belongs to Analyze level and is responsible to help students make coherent connections among pieces of presented information, accordingly, it was employed by the students when making arguments. Critiquing belongs to Evaluate level and it involves noting the

positive and negative features of something and making judgments based on them. This cognitive process was observed when the students were trying to make refutation for their peers' arguments. As for Generating and Planning, they belong to Create level. To assess Generating, students may be asked to produce alternatives or hypotheses. This cognitive process was observed when the students were presenting impacts of a problem and alternative solutions. Planning helps students develop a plan to solve the problem. It was observed when the students were trying to find solutions to a problem by suggesting several plans.

Fourth, debate facilitates the students' English-speaking ability. Another benefit that debate has to offer beside improving higher-order thinking skills is its capability to boost speaking skill. It does so by giving students chances to express their arguments. Different from other speaking activities, debate does not demand the students to speak their mind directly. Instead, they are given a time to discuss some issues with their partners in attempts to formulate sound arguments. It is known as wait time; a very essential factor in higher-order questioning. Longer wait time is crucial to be given to students to provide them with opportunity to construct proper answers to higher-order questions which are cognitively challenging in nature. It is true that the students need to work on their structures however, the fact that they are able to communicate their arguments in English is an improvement that deserves to be appreciated.

5.2 Limitations

There are some limitations of the study. First, it utilized debate which only focused on the students' speaking skills. Some writings were indeed involved however, the main skill of this study is speaking ability. With that in mind, the result of this research cannot be generalized to the other language skills.

The study also involved high school students as participants. Although it was found out that the incorporation of debate into the inquiry-based teaching was able

to improve the students' higher-order thinking skills, the result may differ if it was conducted in other levels.

In addition, the study did not aim to improve specific cognitive processes, accordingly, not all cognitive processes were covered. As for those which are covered in the study, as explained in the previous section are organizing, critiquing, generating and planning.

5.3 Recommendations

Based on the aforementioned limitations, there are some recommendations for future research in purpose to improve students' higher-order thinking skills in language classrooms. First, the research only focused on improving higher-order thinking skills in speaking skill. Since there are four language skills and that they are equally important, it is suggested for future researchers that they expand the focus on the other language skills. By doing so, it is expected that students will not only develop their language performance in all skills but also improve their higher-order thinking skills at the same time.

Second, the study was conducted in a senior high school. Therefore, the method used may not be applicable to other levels. Since it is crucial to introduce higher-order thinking skills as early as possible, it is recommended that researchers conduct similar research in other levels of school, for example junior high school.

Third, this study did not cover all type of cognitive processes in higher-order thinking. Although it was found out in this study that the incorporation of debate in inquiry-based teaching approach could improve the students higher-order thinking skills at all levels, there were several cognitive processes that it did not promote. For that reason, it is suggested that further studies that target specific cognitive processes should be conducted to provide teachers with more thorough

and comprehensive findings that should help them in stimulating their students' higher-order thinking skills particularly in English classrooms.