

CHAPTER V

CONCLUSION AND RECOMMENDATION

A. Conclusions

Based on the research question and the findings revealed on this study, the conclusion are constructed as follows;

1. In general, secondary student's overall critical thinking skill on living things and environmental sustainability theme is categorized on moderate level. it is characterized by mixed level analysis (beginning skill) for becoming knowledgeable of what it would take to systematically monitor the role in student's thinking about concepts, assumptions, inferences, implications, points of view, information, and etc. Embodying critical thinking elements ability during the science learning process might help the students to get used in thinking critically. Teacher also has an important role due to the critical thinking improvement.
2. Students' critical thinking skill on Biodiversity, Energy Resources, Ecosystem, Environmental Pollution, and Global Warming topics are in moderate level. While students' critical thinking skill on living things characteristic is identified as high level. Students' experience in science learning activities and the characteristic of the topic strongly effect to the students critical thinking skill on certain topic.
3. There is no significantly difference between Male and Female group on their critical thinking skill, because critical thinking can be learned through gaining life experiences and through teaching it to others. Critical thinking can be learned through gaining life experiences and through teaching it to others. Thus, it is evident that critical thinking is not a matter of gender.
4. Higher achiever students has significantly higher critical thinking skill rather than middle and lower achiever group. And middle achiever group has significantly higher critical thinking rather than lower achiever. As a higher order thinking, critical thinking skill allows the students to involve the transformation of information and idea given during learning session.

5. At significant level 0.05, there is a positive moderate correlation between critical thinking and students' academic achievement. Improving critical thinking skill of the students will enhance the students' academic achievement. Therefore, there is a need to enhance this thinking skills in the science classroom, for the example, learning environment for science should encourage students to engage in higher-order, critical thinking activities.
6. Formal Reasoning level group has significantly higher critical thinking rather than transitional and concrete level students. While transitional level students has no significantly higher critical thinking rather than concrete level students. Those findings appears due to the role of logical thinking as basic construction on critical thinking, especially in decision making process. In addition, critical thinking also needs logical thinking to provide meaningful relations among independent variables.
7. At significant level 0.05, there is positively low correlation between logical thinking and critical thinking. Fostering the student's logical thinking will fairly help the enhancements of their critical thinking skill. Therefore, it is expected from teaching strategies and adopted technologies to support students' critical and logical thinking skills

B. Recommendation

Based on the research findings and conclusion, there are several recommendations that necessary to be conveyed by the researcher:

1. Other Researcher

The description about secondary student's critical thinking skill on living things and environmental sustainability is expected to be a basic information to be considered for the further research due to the innovative strategies for improving critical thinking skill. Either on the same targets and topic or even in different area. In addition, it is needed to generate deeper analysis regarding the student's critical thinking profile which is relatively based on the real condition or field observation. The curriculum implementation might be applied. Thus, a specific recommendation can be revealed.

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2. Teacher and Stakeholder

The correlation descriptive study in this research can be used as the basic information and motivation for conducting suitable teaching and learning process that involves critical thinking skill or Implementing strategies and method that correspond to the actual critical thinking and educational condition. Some literatures study might help the teacher to find out the suitable way to be applied. Moreover, teacher also expected to have volition for conducting action class research due to the critical thinking improvement.