CHAPTER V
CONCLUSIONS AND RECOMMENDATIONS

5.1 Conclusions

Based on result and data analysis gained by this research, the research title is the profile of students’ critical thinking skills in STEM based learning by using e-module. The conclusions are:

1) The average of students’ critical thinking skills on STEM based learning by using e-module categorized as critical with the percentage 56.7 and the value is 1.70. The students’ critical thinking skills per element are categorized critical and enough critical. In addition for questions at issue element categorized critical with percentage 73% and the value is 2.19, purpose element categorized critical with percentage 54% and the value is 1.62, information element categorized critical with percentage 49% and the value is 1.48, concept element categorized critical with percentage 65% and the value is 1.95, assumption element categorized critical with percentage 73% and the value is 2.19, point of view element categorized critical with percentage 44% and the value is 1.33, interpretation and inference element categorized critical with percentage 43% and the value is 1.29, and the implication and consequences element categorized critical with percentage 52% and the value is 1.57.

2) The students’ impression have positive impression with the value 3.3. The value in program, critical thinking, and content aspect is 3.4 with the interpretation positives impression, the experience aspect has value 3.3, the interpretation is positives impression, and STEM activity has positives interpretation with value 3.2.

3) The teacher impressions have positive impression with the value 3.6. The aspect on the questionnaire is same with the students’ questionnaire. The program aspect have value 3.3 and the interpretation is positives impressions, critical thinking have value 3.4 the interpretations is positives impressions, and then content aspect is 4.0 it means positives
Interpretation, the experience aspect has value 3.7 and the interpretation is positive impression, and STEM activity has positive interpretation with value 3.7.

5.2 Implication
The implication of the research about the profile of students’ critical thinking skills in STEM based learning by using e-module is to develop the e-module content, design and the STEM component based on the result of this study.

5.3 Recommendations
The author admitted that there are still several aspects to be improved in order for the research to be a highly qualified and accurate. Therefore, the following are the recommendation in order for the next future research to be conducted by any other researcher out there:

1) For further research the e-module should be more interactive by adding feature highlighting, taking notes, and zoom in zoom out.
2) For the further research, the STEM based e-module can apply to another topic so that students have an opportunity to train their critical thinking skills.
3) For further research, it will be better if the e-module the content not only text, animation and video but also provide information in form of table, graph, diagram it will help students to train interpretation and inference element.
4) For further e-module development, it will be better if the e-module are able to use or operate in smart phone.