CHAPTER V
CONCLUSION AND SUGGESTION

5.1 Conclusion

The conclusions that can be gotten from this research are:

1) The Gametogenesis module development in POE (Prediction, Observation and Explanation) oriented model was compiled by Research and Development (R&D) of Borg and Gall, which was through nine (9) stages, namely: field observation and collecting information, develop module draft 1 and validity by experts of (design and content), revision module draft I, preliminary field testing, revision module draft II, main field testing, review, operational module revision, final product and dissemination.

2) The worthiness of this module which is gotten from main field testing data shows that students' learning outcome is improved and being satisfied. Improvement obtained by the grade XI Science 2 that used module in learning gift average score from 57.43 became 84.14. While grade XI Science 3 that using handbook did not reach the mastery learning (minimum score), the score just improved from 56.53 became 69.77.

3) The result of expert validation on the aspect of Gametogenesis module in POE (Prediction, Observation and Explanation) oriented model showed that the material aspect is the highest of 87.5%, followed by the readability aspect 85.71% and presentation aspect 85.41%. Graphical aspect is the lowest aspect than the other aspects, which is only 85%. While, all aspects are still in very good criterion and just need a little improvement. The result of comparison is concluded that the gametogenesis module in POE oriented model have otherwise been feasible with the assessment criterion overall very good.

4) The result of preliminary field testing validation of the Gametogenesis module in POE (Prediction, Observation and Explanation) oriented model showed that the material aspect is the lowest or 93.75%, then followed by the presentation aspect is 94.5%, while readability and graphical aspect are 98.6%, collectively. These percentages were still categorized very good.

5) The result of main field testing validation of the Gametogenesis module in POE (Prediction, Observation and Explanation) oriented model showed that the material, presentation, readability and graphical aspect are 100%, collectively. These percentages were still categorized very good.

6) Gametogenesis module in POE (Prediction, Observation and Explanation) oriented model that has developed by researcher is suitable to be used as a good biology learning resource at gametogenesis sub topic for grade XI Science students.

7) Gametogenesis module in POE (Prediction, Observation and Explanation) oriented model can increase student's learning outcome significantly with $t_{calculate}$ (3.385) > t_{table} $t_{calculate}$ (2.0211) at significance α=0.05.

8) There was significant difference between student's learning outcome that is taught by using Gametogenesis module in POE oriented model and student's handbook by proved from $t_{calculate}$ (12.296) > t_{table} (1.9901). It means that Student's learning outcome that are taught by using Gametogenesis module in POE oriented model is higher than student's learning outcome that are taught by using student's handbook.

5.2. **Suggestion**

Having considered the findings of this research, the suggestions are:

1. For biology teachers can use this Gametogenesis module in POE (Prediction, Observation and Explanation) oriented model in teaching learning process of gametogenesis sub topic as an alternative media for improving students learning outcomes

2. To the next researcher is hoped to continue research about this module by improve the design and content of this module in order to give feedback to students become higher than in this research.