# CHAPTER V
# CONCLUSION AND SUGGESTIONS

## 5.1 Conclusion

Based on the results and discussion that have been described earlier, the conclusions of this study are as follows:

1. Based on the results of observation show high students need for project-based module is 94,4% that is due to the limited learning resources provided by lecturers in this course, and low students' understanding of material which are determination and differentiation and endoderm organogenesis: digestive tube and glands that is due to difficulties in understanding those learning materials.
2. Based on the results of material expert validation, the feasibility of this module on the topics of determination, differentiation, and organogenesis is categorized as "very worthy" with average score of 86,5%.
3. Based on the results of learning expert validation, the feasibility of this module on the topics of determination, differentiation, and organogenesis is categorized as "very worthy" with average score of 95,8%.
4. Based on the results of layout design expert validation, the feasibility of this module on the topics of determination, differentiation, and organogenesis is categorized as "very worthy" with average score of 86,5 %.
5. Students' responses of this module on the topics of determination, differentiation, and organogenesis are categorized as "very worthy" with average score of 87,12% in small group trials and 88,43% in limited group trials.
6. There is a significant difference between the control and experiment posttest results on cognitive learning outcomes, critical thinking, and problem-solving skills. The experiment class that used this module got higher posttest score than the control class.

## 5.2 Suggestions

Based on the conclusion stated above, the researcher gives suggestions related to the results of this study, among others:

1. Theoretically, further research needs to be carried out for wider scale trials to obtain maximum results. The assessment of learning process is needed from the completion on the module content such as the project sheet, exercise, evaluation, and case study so that it can more easily determine how the affect of module on critical thinking and problem-solving skills.
2. Practically, this module can be used as a reference for developing learning materials and increasing knowledge about animal development course especially on the topics of determination, differentiation, and organogenesis.