

## CHAPTER V

### CONCLUSIONS AND SUGGESTIONS

#### 5.1 Conclusion

Based on the results of the research and discussion previously described, conclusions can be drawn, namely:

1. The implementation of the *Dalihan Na Tolu* Problem Based Learning model on the material of the excretory system of class XI students at SMA Negeri 1 Panombean Panei has a percentage that almost all aspects of the syntax of the model are implemented as planned.
2. There is a significant effect of problem-based learning model *dalihan na Tolu* on collaboration skills of grade XI students at SMA Negeri 1 Panombean Panei.
3. There is a significant effect of Problem Based Learning *Dalihan Na Tolu* learning model on critical thinking skills of grade XI students at SMA Negeri 1 Panombean Panei.

#### 5.2 Suggestion

Based on the results of the research that has been done, there are some suggestions are:

1. For teachers, it is expected to apply the problem-based learning model *dalihan na Tolu* as one way to overcome the problem of low collaboration skills and critical thinking skills of students, especially in biology subjects.
2. For students, it is expected to foster awareness that students are subjects in the learning process so that they can actively participate during the learning process.
3. Future researchers are expected to develop the research, not only on students' collaboration and critical thinking skills, but also on other 21st century competencies and see the relationship between the two variables using the F test. In collaboration research, future researchers are expected to observe each individual student to get better data.