

CHAPTER V

CONCLUSIONS, IMPLICATIONS, AND SUGGESTIONS

5.1. Conclusions

Based on the findings and discussion, it can be concluded that project based learning has successfully improve the concept mastery, scientific attitude, creative thinking skill. It showed from the data analysis that:

1. There was an effect of learning models (Project Based Learning, Group Investigation, and Conventional Learning) on student's concept mastery on respiratory system topics. Based on the average score of student's concept mastery. it showed that Project-Based Learning (80.05 ± 4.23) increases for about 8.5% to student's concept mastery compared to cooperative learning (73.75 ± 5.96), and about 15.6 % to conventional learning (70.78 ± 5.56).
2. There was an effect of learning models (Project Based Learning, Group Investigation, and Conventional Learning) on student's scientific attitude. on respiratory system topics. Based on the average score of student's scientific attitude showed that Project-Based Learning (79.97 ± 5.5) increases for about 3.8% to student's concept mastery compared to cooperative learning (77.04 ± 5.6), and about 16.5 % to conventional learning (70.16 ± 4.53).
3. There was an effect of learning models (Project Based Learning, Group Investigation, and Conventional Learning) on student's creative thinking skill on respiratory system topics. Based on the average score of student's creative thinking skill showed that Project-Based Learning (81.95 ± 4.7) increases for about 6% to student's creative thinking skill compared to cooperative

learning (77.30 ± 5.32), and about 8.7 % compared to conventional learning (77.06 ± 4.84).

5.2. Implications

The findings of this study gives implication for students who want to improve their concept mastery, scientific attitude, and creative thinking ability, and for teachers who want to develop students skills when learning and teaching process takes place in the classroom. This study has examined two learning models i.e. Project Based Learning (PjBL) and Group Investigation (GI). They were applied to students in order to know which model of learning is more suitable for improving their concept mastery, scientific attitude, and creative thinking skills. Both to learning models is a constructivism approach which demand the students actively construct their knowledge.

5.3. Suggestions

As a result of this study, in which the effects of learning models on student's concept mastery, scientific attitude, and creative thinking skill of students toward Biology were examined, the following suggestions can be suggested depending on the findings obtained in the study:

1. Biology teacher were recommended to use Project Based Learning and Group Investigation learning models because this learning models help students in finding, understanding, and construct concepts, especially the concepts of respiratory system topics.

2. Best preparation should be considered in implementing the Project-Based Learning and Cooperative Learning Group Investigation to get an optimal learning process.
3. Teachers should pay attention to the number of students on class so that the students can be organised in doing their projects.
4. Teacher should choose a suitable learning models in increasing student's skill and engage them actively in learning process.
5. Similar researches can be carried out in other lessons and institutions such as elementary school or university level.