

CHAPTER V

CONCLUSION AND RECOMMENDATION

5.1. Conclusion

The Research on student mastery and student creativity about how the Problem Oriented Learning Model (POPBL) in learning the Environmental Pollution chapter has been implemented based on the POPBL framework. Based on the results of the data, this is the conclusion obtained from the analysis of the data that has been obtained. Based on the results and discussion in chapter IV can be followed:

- 1) Implementation POPBL in Learning Environmental Pollution can be implemented as the innovation of learning model in Junior High School Students. POPBL gives students new learning experience because the researcher tries to simulate the real condition when student creating the project. All the stages based on POPBL framework design did not easy to pass by the students. On the onset stage, students have difficulty mastering the concept with the limitation of learning meeting. This made students not optimal in understanding the basic concept of Environmental Pollution. On the execution stage, students faced the difficult phase when they have to work in the groups. Student's selfishness becomes one the inhibitor to finish their project work. The last stage students can be handled presentation session and posttest very well.
- 2) The students' concept mastery towards Project Oriented Problem Based Learning (POPBL) Model there was no significant difference in scores for control class ($M = 5.24$, $SD = 9.91$) and experiment class ($M = 7.59$, $SD = 6.35$; $t(-1036)$, $p = 0.305$, two tailed).
- 3) Project Oriented Problem Based Learning (POPBL) Model is effect to students' creativity because the percentage of 3 dimension of creativity results on control class are 67% for novelty dimension, 73% for resolution dimension, and 77% for elaboration and synthesis dimension while the experiment class result for novelty dimension is 74%, 85% for resolution, and 81% for elaboration and

synthesis dimension. It means the experiment class had a greater percentage compared by control class percentage result.

- 4) The students' impression toward Project Oriented Problem Based Learning (POPBL) Model showed positive results for all indicators. Mostly the students slightly agree that POPBL model improve their concept mastery, creativity, and students' impression toward POPBL model got a very good response. It means that creating project by implemented POPBL model has positive impact on inside students.

5.2. Recommendation

After conducting this research, processing, analyzing, and finding the results, there are several recommendations that can be recommended for the researcher that necessary for the next research, they are following:

- 1) The POPBL framework implemented in the lesson plan must be adjusted and use more resources to form a systematic stage in learning activities through the POPBL method.
- 2) The POPBL model is only implemented in topics that will create projects at the end of learning activities. This is because the learning model aims to solve problems with analytical problems and products as a result of problem solving.
- 3) Researchers need more sessions and meetings for student discussion. Lack of time can affect project outcomes and students' understanding of the concept of Environmental Pollution.
- 4) The teacher who will guide students using the POPBL model must understand how the learning model works and have broad knowledge so that it can handle unpredictable student questions.