

CHAPTER V

CONCLUSION AND RECOMMENDATION

A. Conclusion

Based on the description on the previous chapters, the researcher summed up several conclusions. First, the implementation of Inquiry based Laboratory Activity in learning light and optics can improve students' conceptual mastery. It can be proven by the results of average N-Gain of experiment class which is higher than the control class in all cognitive dimension and all subtopics of lights and optics. Average N-Gain result obtained by experiment class is 0,76 which can be categorized as high, while the control class got 0,58 for average N-Gain result which can be categorized as medium. The results indicated that the concept of lights and optics can be understood better by the students after treated using Inquiry based Laboratory Activity. The improvement of students' conceptual mastery is also supported by the acceptance of H_1 which means that there is significant improvement on students' conceptual mastery through Inquiry based Laboratory Activity.

Then, the implementation of Inquiry based Laboratory Activity in learning light and optics can improve students' understanding about Nature of Science (NOS). It can be noticed by processing the results of Nature of Science (NOS) understanding, the experiment class which got higher score than the control class in all aspects of Nature of Science (NOS). The improvement of students' conceptual mastery is also supported by the acceptance of H_1 which means that there is significant improvement on students' understanding about Nature of Science (NOS) through Inquiry based Laboratory Activity.

B. Recommendation

Based on the findings of the research that has been conducted and concluded, there are several recommendation that necessary to be conveyed by the researcher, some of them are, first before grouping the students in this

research, it is important to analyze students' ability. The group members should be consist of high and low achievement students. Teacher also should make sure that each group is working collaboratively. Second, teacher supervision is really necessary in order to make sure that every group member active in giving idea and discussion in their group.

While, in the learning process, the students need to be triggered more to formulate the critical questions and relate the laboratory activity with what scientist do in reality. Then, the time allocation to implements the experimental treatment should be considered and determined properly since there are several phases, so the students can finish the laboratory activity optimally. The experimental treatment can be implemented as one of teaching method to improve students' conceptual mastery and understanding about Nature of Science (NOS) in other topic.