CHAPTER V
CONCLUSIONS AND RECOMMENDATIONS

5.1. Conclusions

Based on data analysis and discussion of research results, obtained general conclusion that application of Problem Based Instruction learning model in optic instruments topic has a low criterion in improve students intrinsic motivation and have sufficient criteria to improve students learning achievement in cognitive, effective and psychomotor domains. Based on research questions that presented earlier, we can conclude some of the following:

1. Increasing of students' intrinsic motivation based on average gain normalized (<g>) after implement Problem Based Instruction Learning model is equal to 0.362 in a medium category.
2. Increasing of students' learning achievement based on average normalized gain (<g>) after implement Problem-Based Instruction learning model is 0.556 of cognitive domain, 0.600 of affective domain including into medium category and 0.722 of psychomotor domain including into high category.

5.2. Recommendations

This research is still far from perfect research. Based on the research results that have conducted, researcher gives the following recommendations:

1. Table and seating arrangement of students have to suitable by the characteristics of learning model that used. Particularly in PBI learning model, the shape of table should not elongated and comfortable enough to used by a group of five to six students. In addition, the position of tables is not impeding mobility of teacher when guiding students groups.
2. The number of groups should not be too much for teachers for more maximum control of student activity, especially at investigation stage.
3. Further research is needed of implementation Problem Based Instruction leaning model in improve students' intrinsic motivation and learning

achievement at the same subject, to obtain more consistent results research.

4. For researcher who wants to investigate further more about Problem Based Instruction (PBI) learning model should pay more attention to the weaknesses of this learning model to obtain better results.