

## CHAPTER V

### CONCLUSIONS AND RECOMMENDATIONS

#### 5.1. Conclusions

The conclusions obtained after carrying out this research are:

1. The Problem Based Learning (PBL) model influences students' problem solving abilities on Momentum and Impulse material in class X IPA SMA Negeri 14 Medan, namely based on the results of observing student activities, it is found that students are active.
2. The problem-solving abilities of students who are taught with the problem-based learning (PBL) model are better than students who are taught with conventional learning models. The results obtained for the average value of students' problem-solving skills through the problem-based learning (PBL) model were obtained at 80 while the problem-solving abilities of students through conventional learning models were 52. In addition, the average score for each indicator of problem-solving ability using problem-based models learning (PBL) is higher than conventional learning models.

#### 5.2. Recommendations

Based on the results of this research, there are several recommendations to improve the physics learning process in class, including:

1. The problem based learning PBL model should be applied in schools that have adequate facilities and students are used to using problem-based learning during the teaching and learning process.
2. Further research is suggested to combine various media in the PBL model to attract students' interest during the learning process.
3. For future researchers to allocate more time so that research can run more optimally and produce more satisfactory results.
4. Further research is suggested to add moderator variables such as learning styles, motivation, or other variables in the research.
5. Further research is needed regarding the PBL model because in this study it is only limited to the material of momentum and impulse, so the results of the research only apply to that material.