

## CHAPTER V

### CONCLUSION AND RECOMMENDATION

#### A. Conclusion

Based on research result of robotic project as implementation of project based learning in concept of newton's law to improve students' creative thinking that has been conducted, it is acquired some conclusions.

Robotic project as implementation of project based learning can improve students' creative thinking skill. It is indicated by average score of normalized gain  $\langle g \rangle$  as much as 0.75 which categorized as high improvement.

Robot was determined as final product of the project-based learning implementation, the result of robotic project has shown positive effect in creativity in doing project and there are other positive effects in constructing programming, engineering design, presentation, and teamwork.

Respond of student toward robotic project as implementation of project based learning show positive respond in all indicator; teamwork ability, activity of project based learning implementation, creative thinking skill and making robot as final product.

#### B. Recommendation

Considering that the implementation is still need to be developed in a way to find perfection, the following recommendations are suggested further research:

1. Requiring more time in creating robotic to finish the project given for students, so that all students can finish the project optimally.
2. Observation sheet that is used should be specific in student activity that exercise creative thinking skill in implementing robotic project as implementation of project based learning.

3. Requiring further research related to robotic project as implementation of project based learning about correlation between students' creative thinking skill and students' achievement.
4. Requiring further research related to robotic project as implementation of project based learning using control class to identify effectiveness of robotic project as implementation of project based learning with other learning model.

