

CHAPTER V

CONCLUSSION AND RECOMMENDATION

5.1 Conclusion

The implementation of the STEM project-based learning was systematically carried out. Based on the data finding and the data analysis, it can be concluded that STEM project-based learning has an impact on the students' creativity and motivation in learning heat transfer. The conclusion is detailed as follows:

- 1) The implementation of STEM project-based learning in heat transfer learning applied to 7th grade of junior high school is already in line with the lesson plan. Implementing STEM project-based learning has a percentage of implementation activities of 92 %, which can be interpreted as nearly all the activity are execute. Although in the process, due to time constraints the final stage and how it can be labeled the correction stage could not be conducted.
- 2) The implementation of STEM PBL as a learning model specifically on the theme of heat transfer influences student creativity. Among the three dimensions of creativity, resolution had the highest percentage of 96.67%, which categorized as very good even novelty 57.41%, and the lowest percentage was defined as low.
- 3) The implementation of STEM project-based learning in heat transfer learning will enhance student motivation that gets normalized gain by categorizing as much as 0.06 as low progress. In the meantime, among all of the motivational scale, the performance goal factor is the highest improvement and self-efficacy got the lowest improvement.

5.2 Recommendation

Based on the findings of this research that was conducted and concluded, there are a number of recommendations that the researcher gets to improve, including some that are as follows:

- 1) The teacher should set a time allocation for each stage during implementation of the STEM project-based learning. It is also important that students are monitored so that they can complete the project optimally.

- 2) The STEM project-based learning can be used as an alternate teaching method for science teachers to provide students with opportunities to build their creativity.
- 3) The STEM project-based learning can be implemented as an alternate teaching method for science teachers to offer students ways to improve their motivation in learning science.
- 4) Further researchers with the same interest in STEM project-based learning may expand the research more widely in terms of some other subject or variable similar to the recent issue.