CHAPTER V
CONCLUSIONS AND RECOMMENDATIONS

A. Conclusion

Research of STEAM-Based Learning implementation has been conducted systematically. Based on the research result there are some conclusions gained.

1. Implementation of STEAM-based learning can be used to profile students' creativity through its project. Students' creativity is assessed based on CPAM rubric that focuses on three creativity dimension which are novelty, resolution and elaboration and synthesis. Students' creativity on novelty gained 77.78%, while on resolution is 85.19%, and the style is 83.33%. All of creativity dimension is categorized as good.
2. Implementation of STEAM-based learning on sound concept improves students' cognitive mastery. It can be noticed by seeing the gaps between pre-test and post-test score that is 0.302 which included as medium improvement category.
3. Students' impression towards STEAM-Based learning implementation shows positive impression in all indicators. The indicators are facilitation of cognitive mastery improvement; facilitation of creativity improvement; and impression towards STEAM-based learning.

B. Recommendation

Based on the findings of the research that has been conducted and concluded, there are several recommendations that needed to be conveyed by researcher. Some of them are:

1. STEAM-based learning model can be implemented as an alternative teaching strategy for science teacher in providing activities that develop students' creativity.
2. STEAM-based learning model can be implemented as an alternative teaching strategy for science teacher in providing activities that develop students' cognitive mastery.

3. At assign collaborative working group, teacher should determine the group members that consist of low and high achievement student. However, students' comfort should also be considered so the maximal result can be achieved.
4. Time used for STEAM-based learning implementation is longer than conventional method. Therefore, we should arrange the time really seriously.
5. During the project, students should be monitored. Every student should have a role on it.
6. In the presentation session, teacher should make sure that the concept delivered is correct. Teacher should also encourage all members to speak. In the end of session, teacher should re-state all of conclusion, therefore there will no misconception.
7. The other researcher who interested on STEAM-based learning implementation is recommended to develop the research wider in tem of research variable, problem to be solved and so on.