## **CHAPTER V**

## **CONCLUSION AND SUGGESTION**

## 5.1 Conclusion

After conducting the research and analyzing the data, there are some conclusions that gotten, they are:

- 1. The chemistry lab manual compiled by Nani Herawati, S.P publisher Duta Nusantara on learning colloidal system based responses lecturer, teacher, and students using questionnaire BSNP (National Education Standards Agency) is feasible or standard. However, there are some flaws that must be repaired such as: practical activities that are not in accordance with the syllabus, less to stimulate the curiosity of students, the existing theory on the chemistry lab manual is too short, tools and materials used less detail, and the design is less interesting to read.
- 2. The chemistry lab manual that have been developed for grade XI of Senior High School on learning colloidal system is feasible or standard with the average value is 3.67 means that it is valid and does not need to be revised.
- 3. The level of student's understanding of the content using by chemistry lab manual that have been developed for grade XI of Senior High School on learning colloidal system is very high, especially in the experiment of Introduction of colloid systems, Observing tyndall effect, Observing making the colloid are Manufacture of emulsion and Manufacture colloidal in dispersion has the level of student's understanding are high.

## 5.2 Suggestion

From the result of the research, there are some suggestion must be raised:

- 1. It is suggested for chemistry teacher not only teach theory but also provides practicum so that students can better understand that chemistry is not an abstract subject but also can be demonstrated through practicum.
- 2. It is suggested for school in Senior High School should be use the chemistry lab manual because it can improve learning outcomes and creativity of students in chemistry, especially in the practicum.

- 3. For other researcher, that will be doing the research can using this research as reference in increasing student's achievement and student's activity by using the chemistry lab manual, because this development treatment is better than direct instruction.
- 4. For other researcher, is expected to conduct further development of the research to the improvement of learning outcomes in terms of both cognitive and student's psychomotor.

