## **CHAPTER V**

## **CONCLUSION AND SUGGESTION**

## **5.1 Conclusion**

Based on the research that has been conducted, it can be concluded as follow:

- 1. There are significant differences of students' achievement that taught by problem-based learning model using virtual laboratory flash media compare to direct instructional model using virtual laboratory flash media with the improvement 24 %.
- 2. The gain achievement of students' taught by problem-based learning model using virtual laboratory flash media on the teaching solubility and solubility product topic is 75 % while the average gain of students in control class taught by direct instructional model using virtual laboratory flash media is 51 %.
- 3. The average value of pretest that taught by problem-based learning model using virtual laboratory flash media on the teaching solubility and solubility product topic is  $(36.5 \pm 6.04)$  and the average value of posttest  $\pm$  standard deviation is  $85.17 \pm 5.65$ .
- 4. The average value of pretest that taught by problem-based learning model using virtual laboratory flash media on the teaching of solubility and solubility product is  $(37 \pm 5.35)$ . The average value of posttest  $\pm$  standard deviation is  $69.33 \pm 9.26$ .

## **5.2 Suggestion**

1. For chemistry teacher, problem based learning model using virtual laboratory flash media could be performed in the learning activities because these model and media can improve students' achievement in chemistry, especially in solubility and solubility product topic.

- 2. For chemistry teacher, could be use the virtual laboratory flash media as an alternative in choosing the learning media especially for the school with the insufficient laboratory facilitation to improve the students' understanding in chemistry subject matter.
- 3. Readers and other researcher, the results of this study could be useful information or as comparison to make a further research related to this study.

