## **CHAPTER V**

## **CONCLUSIONS AND SUGGESTIONS**

## 5.1. Conclusions

The objectives of this research had been transformed to be problem statements which were then hypothesized. The supporting data were found and analyzed by Statistical Product and Service Solution (SPSS) version 15.0 to reveal all the hypotheses. The data analysis and the result of this study have provided a basis for the following conclusions:

- 1. The student achievement that be taught by guided-inquiry with concept mapping significant is higher than the student achievement that be taught by direct instruction with concept mapping
- 2. There is significant correlation between student's metacognition to the student's achievement obtained by guided-inquiry with concept mapping
- 3. The percentage of student's metacognition that be taught by guidedinquiry with concept mapping including 53 % of students had ability to know their knowledge of cognition (KC), 56 % of students had ability to know their monitoring of cognition (MC) and 60 % of students had ability to know their regulation of cognition (RC)

## 4.2. Suggestions

The outcomes of this research recommended chemistry teachers to implement this kind of learning model due to its effectiveness and significances compared to direct instruction one on the teaching of solubility and solubility product. The overall results of this study offer implications for future researchers who may be intersted in studying the effectiveness of Guided Inquiry on theaching of chemistry topics or other subjects. This study could be replicated among a larger population in North Sumatera, Indonesia and even across to the nation. Because this study limited the scope of research to senior high school students, ability of student's metacognition in senior high school, so that future researchers could enlarge the scope of this research by examining this kind of learning model to may be elementary, junior high school, or even in university students. For perfect of this research, future researhers could include additional variables which may give contribution to student's cognitive and affective aspects such as examining the effectiveness of guided inquiry with concept mapping in improving the student's achievement and knowing the ability of student's metacognition based on sex , family background, etc. Furthemore, investigating the similar and different researchers about guide inquiry are rarely required to developed this own learning model especially and science education quality in Indonesia globlly.

