CHAPTER V
CONCLUSION AND RECOMMENDATION

5.1 Conclusion

Based on the result of research, there are some conclusions:

1. There was significant difference of students learning outcome between Mind Maps and Notes Write and Stacking (NWS) Techniques. The students learning outcome by the mind map technique 71.7 ± 10.2 ($\overline{X}$ ± SD) was higher than notes write and stacking technique 66.48 ± 11.5 ($\overline{X}$ ± SD) at ecosystem topic Grade X SMAN 11 Medan Academic Year 2014/2015.
2. There was significant difference of students retention between Mind Maps and Notes Write and Stacking (NWS) Techniques. The students retention by the mind map technique 69.47 ± 10.38 ($\overline{X}$ ± SD) was higher than notes write and stacking technique 62.7 ± 10.6 ($\overline{X}$ ± SD) at ecosystem topic Grade X SMAN 11 Medan Academic Year 2014/2015.
3. When compared to Mind Mapping and Notes Write and Stacking Techniques, Mind Mapping was found to produce highest students learning outcome and retention than Notes Write and Stacking. Because because mind mapping technique, the teacher acts as facilitator and students were required to understand the topic personally and It is possible to remove the student or his ideas are good ideas and systematically. In Notes Write and Stacking Technique emotionally satisfying students and help students get into the emotional memory of students.

5.2 Recommendation

Based on the conclusion above, it's recommended to:

1. Teacher should apply Mind Map in biological learning process especially at ecosystem topic.
2. Mind Map has positive effect for development of students in ecosystem topic learning, even there are many preparation to be prepared before research, especially for timing affectivity.
3. As prospective teacher more creating an effective learning model biology in ecosystem topic so as to create an active learning environment and conducive.