CHAPTER V
CONCLUSION AND RECOMMENDATION

A. Conclusion

According to research finding of Implementation of Multiple Representation Based Instruction and discovering its impact to student's conceptual mastery, it can be concluded as follow:

Multiple Representation based Instruction consists of severalsteps the first is observation of selected phenomena, finding a pattern, devising explanation and rule using different types of reasoninge, representing penomena in multiple ways, making prediction and designing testing experiment, conducting testing experiment

Multiple Representation representation has a role in improving students' conceptual mastery this can be seen that the result of Normalized gain is 0.482 which means it has medium level of effectiveness, while acccording to the result of each taxonomy value of normalized gain for C1 the value is 1 which is considered as high, while C2 is 0.492 is medium, C3 is 0.599 which is medium and C4 is considered as 0.313 which is medium thus it can be concluded that multiple representation has role in improving higher order thinking.

Multiple Representation Instruction gives influence in improving students conceptual mastery it is proven by One Score t-test that null hypothesis is retained considering that t_{table} (-2.034) is less than $t_{calculated}$ (0.047) which means students average score is above minimal standard of science subject matter.

B. Recommendation

Considering that the research still needed to be developed and improved, there are some recommendations that researcher suggest for further research:

1. Multiple representation is learning model which can be implemented in science learning especially for concept which involve abstract subject in science.

2. In order to avoid missconception and confussion among students, it will be better for teacher to guide and put attention on students in every step that students do.

3. In data collection, it will be better for observer to take two types of video tapping, the first is large classroom session tapping and each group video tapping.

4. In the implementation of multiple representation, it will be better to apply all ability rurics such as ability to represent physical processes in multiple ways, to devise and test a qualitative explanation or quantitative relationship, to modify a qualitative explanation or quantitative relationship, to design an experimental investigation, to collect and analyse data, to evaluate experimental predictions and outcomes, conceptual claims, problem solutions, and models, and to communicate scientific idea in the multiple ways, so that students are devised by various classroom experiences in one learning experience.