

CHAPTER V

CONCLUSION, LIMITATION OF THE STUDY, AND SUGGESTIONS

A. Conclusion

The framework of sequence in combining virtual and physical experiment was designed based on experiment requirements, laboratory tools, students' prior knowledge, and learning objective. In general, both virtual-physical and physical-virtual groups resulted high category improvement in students' understanding. But both groups resulted different characteristics the students' that conducted physical experiment first followed by virtual experiment has better ability in explaining by constructing and synthesizing knowledge from physical experiment and virtual experiment than students that conducted virtual experiment first. Meanwhile virtual-physical group has better influence in increasing students' ability in interpreting abstract concept and inferring experiment data. Physical-virtual and virtual-physical sequence gave different advantages and disadvantages towards students' understanding in learning process.

B. Suggestions

1. Researcher suggests teachers to use the framework of combining virtual and physical experiment sequence to give the best influence in enhancing students' understanding.
2. Researcher suggests other researchers to investigate the framework of combining virtual and physical experiment towards students' ability in explaining, interpreting, and inferring.
3. Other researchers could investigate different kind of understanding categories or another higher category of achievement of students such as analyzing, applying, and creating by using the information of advantages and disadvantages of V-P and P-V experiments
4. Other researchers could find another framework of combining virtual and physical experiment based on different criteria of learning objectives and use the information of the framework of this research as reference.