CHAPTER V
CONCLUSION AND RECOMMENDATION

A. Conclusion

Based on the findings and discussions elaborated, waves on string student activity by Esler (2011) can be adopted as lesson plan with several aspects on the student activity which are recommended to be improved such as in PART A, changing some sentences in the data table in order to make it easier to be understood by the students, changing some settings in obtaining data activity, and adding clear example on how to determine the base and peak point in measuring the height of wave at start and at the end. And then in PART B, adding clear instruction on how to use the ruler to measure the wavelength, and changing the picture to obtain the data of wavelength with the picture of simulation with the instructed setting. Meanwhile in PART C, adding instruction to do the practice session together with the teacher, and adding instruction to make the starting point in counting the wave similar in each trial.

The students cognitive result shows that the average of cognitive test result in the level cognitive of C-2 (Understanding) and C-4 (analyzing) were categorized into very good criteria both in day 1 and day 2 of research implementation. Meanwhile the average of cognitive test result in the level cognitive of C-3 (applying) was categorized into good criteria in day 1, and it was categorized into very good criteria in day 2 of research implementation.

The science laboratory environment in learning waves and sounds with Physics Education Technology (PhET) as Virtual Laboratory was favorably perceived by the students, since almost all of the average item score of each scale approached the maximum score.

B. Recommendation

Based on the findings of the research that has been conducted and concluded, there are several recommendations that necessary to be conveyed by the researcher. It will be described as follow.

1. Since the laboratory activity is really important to be conducted, Waves on a string simulation from Physics Education Technology (PhET) can be used as an alternative to conduct laboratory activity in learning waves properties virtually.
2. Cognitive test which is used in this research can be used to evaluate students' understanding after conducting virtual laboratory activity using waves on a string simulation from Physics Education Technology (PhET).
3. The recommendation of improvement in students activity as the result of this research could be applied in the future research.
4. Make a digital worksheet for the students which is similar with the activity can be alternative to overcome the problem happened described in this research.
5. Since this study was conducted in physics laboratory, it is recommended for further research to implement this virtual laboratory in computer laboratory.