

## CHAPTER V

### CONCLUSION AND RECOMMENDATION

#### A. Conclusion

The research about comparing science virtual test and paper-based test to measure students' critical thinking based on living thing and environmental sustainability has been conducted systematically based on the result and discussion. Parallel to research questions, the conclusion of this research was explained as follows.

1. Science virtual test shows higher score compare to paper-based test score in most elements of critical thinking, there are only two elements shows insignificant result of comparison. Hence, the total comparison shows that science virtual test is significantly difference which is higher than paper-based test. It was signed by the *Asymp. Sig* which is 0.006. In addition, it was supported by students' respond on science virtual test which show positive respond in aspects of interest, impression, and expectation.
2. Comparison between science virtual test and paper-based test do not influenced by the effect of gender. It was signed by the *Asymp. Sig* which is 0.172. Thus, science virtual test was necessary to be implemented for both male and female students.
3. Comparison between science virtual test and paper-based test do not influenced by the effect of VAK learning style. It was signed by the *Asymp. Sig* which is 0.059. Means that science virtual test was necessary to be implemented for students with anykind of lerning style.
4. Comparison between science virtual test and paper-based test do not influenced by the effect of students' experience. It was signed by the *Asymp. Sig* which is 0.345. Means that, science virtual test was necessary to be implemented for both mexperienced and inexperienced students.
5. Science virtual test showed significantly higher result compare to paper-based test in two topics of living thing and environmental sustainability, which are

about plant structure and functions, and population growth and its impact. Those topics shows *Asymp. Sig* which are about 0.004 and 0.037.

## **B. Recommendation**

There are several recommendation based on the finding of the research that has been conducted in order to improve the quality of the result in term of implementation and development.

Teacher should make sure the existance of supporting technology in applying science virtual test in the class. Other than that, teacher should also put more control to the student during the implementation of science virtual test in order to minimize the technical problem which might be faced by the student. Besides, the teacher also needs to be more creative and innovative in construcing the test item. The research might be better if the question is constructed in more variants. Besides,

Besides, the recommendation was also elaborated from the aspects of development. The development of science virtual test should also consider the quality of media such like picture, sound, video, and chart should be in best quality. It is better also to take more sample so the data which is obtained is more accurate.