

CHAPTER V

CONCLUSIONS AND RECOMMENDATIONS

A. Conclusions

Based on the research results it is acquired some conclusions that are:

1. In general the development of science virtual test item to measure students' critical thinking on living things and environmental sustainability consist of five steps: content analysis, constructing the instrument (multiple choice), validity of the instrument by the expert, legibility test by students, and conducting the large test.
2. Science virtual test item constructed to measure the students' critical thinking based on the elements of critical thinking by Inch. Detailing the eight elements of critical thinking is a function that is interconnected, as follows: purpose, question at issue, assumptions, point of view, information, concepts, interpretation and inference, implication and consequences.
3. There were five criteria that have been tested on legibility test such as the description of information, question, the option, interrelation of questions and answers, and terms that have been provided.
4. Based on the large test field is gained the results of validity and reliability of the test, difficulty index, discriminating power, and quality of distractor. The coefficient alpha (α) was 0.747, the reliability of the test was categorized as 'high' and value of XY correlation was 0.63 which mean that the validity of the test was categorized as 'high'. These means that science virtual test item can be measure a students' critical thinking with good consistency.

B. Recommendations

Based on the results of the research, there are several recommendation for further researcher in developing of science virtual test item to measure student's critical thinking, as following:

1. For teacher

Science virtual test that has been developed can be used by the science teacher to know the level of students' critical thinking based on Inch element of critical thinking especially in living things and environmental sustainability theme. Teacher can reflect more about how to construct and develop an appropriate instrument or test item to measure students' critical thinking.

2. For other researcher

The result of developing science virtual test can be a basic to do the research about constructing the instrument to assess critical thinking of students' based on critical thinking by Inch. Other similar research can be done in other kind of topic or theme especially in science to explore the critical thinking ability of the students'. This research can be a reference for a relevant research.