

## CHAPTER V

### CONCLUSION AND SUGGESTION

#### 5.1 Conclusion

Based on the results of research that has been carried out for the development of a conceptual knowledge diagnostic test on dynamic electrical material in high school, a conclusion is obtained in accordance with the following hypothesis:

1. The validity level of the diagnostic test developed for Waves and Sound material has met the qualifications well with the CVR results of 0.94 and the CVI results obtained were 0.31 and met the criteria, namely CVR and CVI both in the range  $-1 < 0 < 1$ . In the field test, 18 questions were valid and 7 questions were invalid
2. The reliability level of the diagnostic test developed for Waves and Sound material has met the good qualifications with a reliability value of 0.71 in the high reliability category
3. The level of difficulty of the diagnostic tests developed for wave and sound material has met the good qualifications with an overall value range between 0.3 - 0.7 with the moderate category
4. The distinguishing power of the diagnostic test developed for Waves and Sound material has met the good qualifications with a range of  $0.3 < 0.7$  DP with the percentage of differentiation power that states 24% of questions have distinguishing power that cannot be used, 28% of questions have distinguishing power which has to be revised, 16% of questions have distinguishing power with acceptable questions with a little revision, 32% of questions have distinguishing power with good questions.

5. The level of effectiveness of the distracting index of diagnostic tests developed for Waves and Sound material has met that 37 answer options and 45 reason options were of very good quality, as many as 28 answer options and 17 options reasons with good quality, as many as 9 answer options and 7 reason options with not good quality, as many as 1 answer option and 6 reason options with bad, as well as 0 answer options and 0 reason options with very bad quality.
6. The diagnostic test developed to determine the level of understanding of students' physics concepts, it was found that the average number of students who were included in the concept understanding category was 54%, the percentage of students who experienced misconceptions was 20% and the percentage of students who did not understand the concept was 24%

## 5.2 Suggestion

Based on the results obtained from this research, some suggestions can be made to make them better and more useful. Therefore, the authors suggest the following:

1. It is recommended that teachers conduct more frequent diagnostic tests so that students not only know but also understand the concepts that exist in physics
2. Diagnostic tests can be developed further on other physics materials
3. It is necessary to evaluate the learning process to minimize misconceptions that occur in students
4. In order for this diagnostic test to be of a better quality, further repair and correction is required