

CHAPTER V CONCLUSIONS AND SUGGESTIONS

5.1 Conclusions

The physics instrument test based on Higher Order Thinking Skills (HOTS) at the Senior High School level in Deli Serdang in the academic year 2019/2020 was developed in the form of 30 multiple choice items on business and energy material with categories of cognitive levels analyzing (C4), evaluating (C5) with skills analyzing and solving problems. Conclusions of the results of the analysis and discussion of the development of test instruments that the physics test instrument based on Higher Order Thinking Skills (HOTS) at the Senior High School level in Deli Serdang has met the requirements and is suitable for use as a measurement tool for higher order thinking skills with characteristics:

1. Validation by expert judgment is very valid with an average value of 87,6 and has obtained empirical evidence through the validation of item construction with 80% valid items in the preliminary field test and 90% valid items in the main field test.
2. The reliability of the HOTS-based test instrument for work and energy at the SMA level is 0.92 with a very high category ($r \geq 0.70$) in a preliminary field test and 0.87 with a high category ($r \geq 0.70$) in the main field test
3. The distinguishing power of the HOTS-based test instrument for work and energy at the SMA level has an average 0.6 with 87% of the categories accepted in the preliminary field test and the average 0.5 with 77% of the categories accepted in the main field test.
4. The difficulty level of the HOTS-based test instrument for work and energy at the SMA level has 30% in the difficult category and 67% in the rather difficult category in the preliminary field test and 21% in the difficult category and 76% in the rather difficult category in the main field test.

5. Effectiveness of distractor the HOTS-based test instrument for work and energy at the SMA level is 87% accepted in the preliminary field test and 90% in the main field test.

5.2 Suggestions

Research and development of physics instrument test based on Higher Order Thinking skills (HOTS) at the high school level in Deli Serdang has a category of item quality that deserves to be used as many as 28 item. Researchers suggest that:

1. Higher order thinking skills physics test instruments developed can be used by the teacher as a reference for practice questions or exams in high school.
2. Higher order thinking skills physics test instruments applied as an evaluation of students in learning physics, so students are accustomed to working on HOTS-based tests in senior high school
3. Should be held training or dissemination of the preparation of physics test instruments based on Higher Order Thinking Skills for teachers
4. Higher order thinking skills physics test instruments used as a reference for similar or further research.
5. If want to make a HOTS-based instrument test, you should first deepen your understanding of the instrument, HOTS, and the method used so that the researcher masters the material and is not confused in making it

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