ABSTRACT

Silvania Carella Prinst, IDN 4173121050 (2017). The Development of Test Instrument Based on Higher Order Thinking Skills (HOTS) of Translational Dynamics Topic.

This study aims to develop a physics test instrument based on Higher Order Thinking Skills (HOTS) of Translational Dynamics Topic that meets the qualifications in the aspects of validity, reliability, discriminating power, level of difficulty, and effectiveness of distractors. The type of research used is the Research and Development (R&D) ADDIE model with 5 stages, namely: (1) the analysis: problem identification, needs analysis, and test instrument analysis, (2) design: format selection and initial design of HOTS test instruments, (3) development: HOTS test instrument design development, content validation by experts, revision of the results of content validation, (4) implementation: small class tests on 10 students of class XI IPA 2, large class tests on 45 students of class XI IPA 2 and XI IPA 3 in SMA Swasta PAB-8 Saentis, (5) evaluation: re-analyzing the results of the trial, and conclusions from all stages of the research. The test instrument developed consisted of 20 multiple-choice items. The results of the content validation test obtained valid test instruments with revisions to material, construction, and language aspects. The results of the small class test showed that 85% of valid items, very reliable, 95% of items had good discriminating power, 95% had moderate difficulty, and 70% had good distractors. Large class test results obtained 88% of items are valid, reliable, 56% of items have good discriminating power, 82% of items have moderate difficulty, and 82% of items have good distractor effectiveness, so the test instrument is feasible to use to measure students higher order thinking skills.

Keywords: Higher Order Thinking Skills, Test Instrument, Translational Dynamics