

ABSTRACT

Novia Dwi Kristiani Marpaung, IDN 4191121011 (2024), The Development Of Four-Tier Diagnostic Test Assisted By Google Form To Identificate Students' Physics Learning Difficulties On Equilibrium Of Rigid Body Topics

A four-tier diagnostic test instrument was developed with the aim of identifying students' learning difficulties on the topic of equilibrium of rigid bodies. This research was conducted at SMA Negeri 1 Sei Suka on class XI IPA students, totaling 53 students in the 2023/2024 academic year. The test instrument is in the form of multiple choices assisted by Google Form. This type of research is Research and Development (R&D) by Borg and Gall with the Analysis, Design, Development, Implementation, and Evaluation (ADDIE) development method with simple random sampling. Data collection techniques include tests, interviews, questionnaires, and documentation. The results of validation by experts show the test instrument was valid. The instrument has a test reliability of 0.719. The test results have identified the category of student understanding which is divided into the category understanding of Scientific Concepts (10%), Rarely Misconception (17%), False Negative (14%), Lack of Knowledge (31%), and Misconception (28%) about the Equilibrium of Rigid Body topics. The learning difficulties found of students come from internal factors in the talent aspect on the indicator of students' understanding of solving physics problems with a percentage of 54.69% and the intelligence aspect on the indicator of students' ability to work on questions, of physics with a percentage of 56.25%.

Keywords : Learning Difficulties, Four-Tier Diagnostic Test, Equilibrium of Rigid Body