

The Effectiveness of Using Multimedia in Teaching Physics to Gauge Student Learning Outcomes In The Senior High School in Indonesia

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Abstract -- Generally, one of the concepts of Physics that students have to master is straight-forward motion. This concept is commonly difficult to be comprehended by the students. One of the techniques to improve students' comprehension is by using interactive multimedia which can be used for autonomous learning. Hence, this study attempted to use interactive multimedia to improve student learning outcomes. This study aimed to figure out the effectiveness of using multimedia on 10th grade student learning outcomes about concepts of straight-forward motion in SMA Negeri 1 Semparuk, Indonesia. This study employs quantitative pre experimental method with one group pretest posttest design. 90 students were chosen through purposive sampling from three different classes. The data analysis shows that using multimedia improves student learning outcomes. The size effect of the outcomes is 0.82 which indicates significant improvement. Based on the findings, this study suggests that using multimedia is highly effective in improving student learning outcomes in Physics, particularly in straight-forward motion.

Keywords — Multimedia, Effectiveness, Learning outcomes, Physic, Straight-forward motion