ABSTRACT

Chairin Ghillanda, IDN 4202421018 (2024), Development Of Physics Learning Media Based Android Using Kodular To Improve Student Learning Outcomes On Temperature And Heat Material At SMA Negeri 5 Medan

This research was conducted due to the lack of interesting learning media, making students' interest in physics subjects to study physics low and resulting in unsatisfactory student learning outcomes. This research aims to develop android-based learning media using kodular as a learning media to improve student learning outcomes on temperature, expansion and heat material for high school class XI. This research is a Research & Development (R & D) study using the ADDIE model which consists of stages (Analyze, Design, Development, Implementation and Evaluation). The subjects of this research were students of class XI MIPA SMAN 5 Medan. The results of material expert validity have a percentage of 91.11% with a very valid category and media expert validity has a percentage of 90% with a very valid category. The results of practicality by students in small groups of 87.95% (very practical), medium groups of 85.54% and limited groups of 94.75% (very practical) and in the effectiveness test obtained the results of the gain score of the difference between the pretest and protest scores showed an average in the small group of 0.77, medium group 0.77 while in the limited group of 0.83 in the high category. Based on this information, it is concluded that the android-based student learning media using codular to improve student learning outcomes on temperature, expansion and heat material at SMAN 5 Medan developed by researchers get results that are feasible to use with valid, very practical and effective categories.

Keywords: Android, Kodular, Learning Outcomes, ADDIE, Expansion Temperature and Heat