

Development of Interactive Video-Assisted Physics Learning Media to Optimize Mastery of Physics Concepts for High School Students in the Digital Era

by Pujiyanto, Yusman Wiyatmo, Bayu Setiaji

ABSTRACT

Physics learning is designed and organized to provide skills and understanding of physics concepts so that students can apply them in their daily activities. The presentation of physics concepts is introduced early on starting from elementary and secondary education in the form of learning theory and practice. Not many teachers are able to develop teaching materials including supporting learning media. This study aims to: 1) develop interactive video-assisted physics learning media that are appropriate for use in secondary schools, and 2) investigate students' mastery of physics concepts after the implementation of the developed learning media.

The research design adopts the Dick & Carey (2015) development model which includes the following stages: 1) analysis (analyze) which includes three steps, namely: analyzing needs to identify goals (assess needs to identify goals), analyzing instructional (conduct instructional analysis), and analyzing learners and contexts (analysis of learners and contexts), 2) development (develop), 3) design (design), 4) implementation (implementation) procedural steps after carrying out the needs analysis stage, and stage 5) evaluation (evaluate). Data obtained through tests and non-tests. All data were analyzed by descriptive qualitative.

The results of the study show that interactive video-assisted physics learning media is feasible to apply to physics learning in high school, and learning media is able to assist high school students in mastering the concepts of physics material. The media that has been developed can be one of the interactive video-assisted physics learning media that is suitable for high school physics learning in the digital era.

Kata Kunci: *learning media, physics concepts, interactive*