

ABSTRAK

Christmas A Simanjuntak, NIM 4203121012 (2024), Pengembangan Multimedia Berbasis HOT pada Materi Dinamika Rotasi di SMA

Penelitian ini bertujuan untuk mengembangkan multimedia pembelajaran berbasis *HOT* pada materi dinamika rotasi. Jenis penelitian yang digunakan yaitu *Research and Development (R&D)* yang menggunakan model *ADDIE*. Teknik pengumpulan data berupa angket kelayakan, respon siswa, serta tes hasil belajar berupa *pre-test* dan *post-test*. Penelitian ini dilakukan melalui tahapan analisis, desain, pengembangan, implementasi, dan evaluasi. Subjek penelitian ini meliputi dua dosen fisika dan guru fisika sebagai validator, serta siswa siswa kelas XI MIPA 1 SMAS Eria Medan. Hasil penelitian berupa tingkat kelayakan diperoleh persentasi rata-rata 85,9% dengan kategori layak, tingkat kepraktisan multimedia memperoleh persentasi rata-rata 85,6% pada uji kelompok kecil dan 87,8% pada uji kelompok besar dengan kategori praktis. Tingkat keefektifan multimedia diperoleh dari nilai rata-rata yang didapat siswa yaitu sebesar 84 dan rata rata N-gain dengan skor 0,6. Multimedia efektif meningkatkan hasil belajar siswa untuk mencapai $\geq$ nilai KKM yang telah ditentukan yaitu 75. Tingkat keefektifan multimedia pembelajaran fisika berbasis *HOT* pada materi dinamika rotasi ini dinyatakan layak, praktis, dan efektif.

Kata Kunci: Multimedia, HOT, Dinamika Rotasi

ABSTRACT

Christmas A Simanjuntak, NIM 4203121012 (2024), Development of HOT-Based Multimedia on Rotational Dynamics Material in Senior High School

This study aims to develop HOT-based learning multimedia on rotational dynamics material. The type of research used is Research and Development (R&D) using the ADDIE model. Data collection techniques include feasibility questionnaires, student responses, and learning outcome tests in the form of pre-tests and post-tests. This research is conducted through the stages of analysis, design, development, implementation, and evaluation. The subjects of this research include two physics lecturers and a physics teacher as validators, as well as students from class XI MIPA 1 SMAS Eria Medan. The results of the study showed that the feasibility level obtained an average percentage of 85.9% in the feasible category. The practicality level of the multimedia obtained an average percentage of 85.6% in small group trials and 87.8% in large group trials, categorized as practical. The effectiveness level of the multimedia was obtained from the average score achieved by the students, which was 84, and the average N-gain score was 0.6. The multimedia was effective in improving student learning outcomes to achieve the minimum passing grade (KKM) of 75. The effectiveness level of the HOT-based physics learning multimedia on rotational dynamics material is declared feasible, practical, and effective.

Keywords: Multimedia, HOT, rotational dynamics