ABSTRAK

Sindy Puspita, Nim 4161121023 (2021). Pengembangan Media Pembelajaran *Mobile Learning* Berbasis Android pada Pokok Materi Hukum Newton tentang Gerak untuk Siswa Kelas X IPA SMA.

Penelitian ini bertujuan untuk mengembangakan *mobile learning* berbasis *android* pada materi pokok Hukum Newton tentang Gerak serta menguji kelayakan *mobile learning* yang dihasilkan melaui validasis ahli, uji coba lapangan dan uji keefektifan.. Penelitian ini termasuk jenis penelitian *research and development* (R&D), menggunakan model *Borg and Gall*. Hasil validasi oleh ahli media menunjukkan bahwa (1) aspek panduan dan informasi *mobile learning* dinilai layak dengan rata-rata 4; (2) aspek kinerja program dinilai sangat layak dengan rata-rata 4,3; (3) aspek sistematika/estetika dan prinsip reka bentuk dinilai layak dengan rata-rata 3,9. Hasil validasi ahli materi menunjukkan bahwa; (1) aspek panduan dan informasi dari *mobile learning* dinilai sengat layak dengan rata-rata 4,75; (2) aspek konten/materi multimedia dinilai sangat layak dengan rata-rata 4,8 dengan dan (3) aspek evaluasi dinilai sangat layak dengan rata-rata 4,8 dengan persentase 96%. Hasil respon guru fisika SMA Al-Ma'shum Kisaran yaitu baik dengan rata-rata 4 dengan. Berdasarkan hasil uji lapangan pada kelompok kecil, *mobile learning* yang dikembangakan mendapat respon sangat baik dengan rata-rata 4,2. Hasil uji lapangan pada kelompok besar, *mobile learning* berbasis android yang dikembangkan mendapat respon sangat baik dengan rata-rata 4,3. Tingkat keefektifan *mobile learning* berbasis *android* berdasarkan perhitungan menggunakan rumus N-gain diperoleh 0,74 dengan ketegori sangat baik. Dengan demikian *mobile learning* berbasis *android* pada materi pokok Hukum Newton tentang Gerak untuk kelas X SMA memenuhi kriteria kelayakan media pembelajaran.

Kata Kunci : *Mobile learning*, Android, Hukum Newton

ABSTRACT

Sindy Puspita, Nim 4161121023 (2021). Mobile Learning Development Based on Android on The Subject of Newton's Law about Motion for Students of Class X Science High School.

This study aims to develop mobile learning based android on Newton's Law about motion as well as to test the feasibility of the resulting mobile learning through expert validation, field trials and effectiveness tests. This research is a type of research and development (R&D) research, using the Borg and Gall model. The results of validation by media experts show that (1) aspects of mobile learning guidance and information are considered feasible with an average of 4; (2) the aspect of program performance is considered very decent with an average of 4.3; (3) the systematic/aesthetic aspects and design principles are considered feasible with an average of 3,9. The results of the material expert validation show that; (1) the guidance and information aspects of mobile learning are considered very feasible with an average of 4,75; (2) the aspect of multimedia content/material is considered very feasible with an average of 4.8 and (3) the evaluation aspect is considered very feasible with an average of 4.8. The results of the physics teacher's response at SMA Al Ma'shum were very good with an average of 4. Based on the results of field tests in small groups, the developed mobile learning received a very good response with an average of 4.2. The results of the field test in large groups, the mobile learning developed received a very good response with an average of 4.3. The effectiveness level of mobile learning based on calculations using the N-gain formula obtained 0.74 with a very good category. Thus, mobile learning based Android on the subject of Newton's law about motion for students of class X science high school meets the eligibility criteria for learning media.

Key words: Mobile learning, Android, Newton's Law.