

ABSTRAK

Dosmaripa Harryanti Banjarnahor, 5193151019: *Pengembangan Media Pembelajaran Interaktif Berbasis Aplikasi Android dengan Fitur Simulasi pada Mata Pelajaran Informatika*. Skripsi. Fakultas Teknik, Universitas Negeri Medan. 2026.

Penelitian ini bertujuan untuk mengembangkan dan mengetahui kelayakan, akseptabilitas, dan efektivitas media pembelajaran interaktif berbasis aplikasi Android dengan fitur simulasi pada mata pelajaran Informatika elemen Jaringan Komputer dan Internet di SMA Swasta Valentine. Penelitian ini menggunakan metode *Research and Development* (R&D) dengan model pengembangan ADDIE yang meliputi lima tahapan, yaitu *Analysis, Design, Development, Implementation*, dan *Evaluation*. Subjek penelitian terdiri dari 24 peserta didik kelas X SMA Swasta Valentine. Data dikumpulkan menggunakan angket validasi ahli materi, angket validasi ahli media, angket akseptabilitas peserta didik, serta tes hasil belajar berupa *pretest* dan *posttest*. Data kelayakan dan akseptabilitas dianalisis menggunakan rata-rata (*mean*), sedangkan efektivitas dianalisis menggunakan N-Gain. Hasil penelitian menunjukkan bahwa media pembelajaran interaktif berbasis aplikasi Android dengan fitur simulasi memperoleh rata-rata skor validasi ahli materi sebesar 4,025 dengan kategori layak dan validasi ahli media sebesar 4,024 dengan kategori layak. Hasil uji akseptabilitas peserta didik memperoleh rata-rata skor sebesar 4,54 dengan kategori sangat tinggi. Hasil uji efektivitas berdasarkan N-Gain memperoleh nilai sebesar 0,69 atau 69% dengan kategori sedang. Hasil tersebut menunjukkan bahwa media pembelajaran yang dikembangkan memenuhi kriteria kelayakan, memperoleh penerimaan yang sangat tinggi dari peserta didik, dan efektif dalam meningkatkan hasil belajar dalam kategori sedang. Berdasarkan hasil penelitian, media pembelajaran interaktif berbasis aplikasi Android dengan fitur simulasi dinyatakan layak digunakan sebagai media pembelajaran pada mata pelajaran Informatika materi Jaringan Komputer dan Internet.

Kata kunci: Media pembelajaran, Android, ADDIE, Jaringan Komputer dan Internet, Informatika.

ABSTRACT

Dosmaripa Harryanti Banjarnahor, 5193151019: *Development of Interactive Learning Media Based on an Android Application with Simulation Features in Informatics Subject. Thesis. Faculty of Engineering, Universitas Negeri Medan. 2026*

This study aims to develop and determine the feasibility, acceptability, and effectiveness of an interactive learning medium based on an Android application with simulation features for the Informatics subject, particularly the Computer Networks and Internet material, at SMA Swasta Valentine. This study employed the Research and Development (R&D) method using the ADDIE development model, which consists of five stages: Analysis, Design, Development, Implementation, and Evaluation. The research subjects consisted of 24 tenth-grade students at SMA Swasta Valentine. Data were collected using material expert validation questionnaires, media expert validation questionnaires, student acceptability questionnaires, and learning achievement tests in the form of a pretest and posttest. Feasibility and acceptability data were analyzed using the mean score, while effectiveness was analyzed using N-Gain. The results showed that the interactive learning medium based on an Android application with simulation features obtained an average material expert validation score of 4.025, categorized as feasible, and an average media expert validation score of 4.024, also categorized as feasible. The student acceptability test obtained an average score of 4.54, categorized as very high. The effectiveness test based on N-Gain obtained a score of 0.69, or 69%, categorized as moderate. These results indicate that the developed learning medium meets the feasibility criteria, receives very high acceptance from students, and is effective in improving learning outcomes at a moderate level. Based on the results of the study, the interactive learning medium based on an Android application with simulation features is declared feasible for use as a learning medium in the Informatics subject, particularly for the Computer Networks and Internet material.

Keywords: Learning Media, Android, ADDIE, Computer Networks and Internet, Informatics.