

ABSTRAK

Yenti Ariska Putri : Pengembangan *Game edukasi* Berbasis Android Sebagai Media Pembelajaran Interaktif Pada Mata Pelajaran Informatika di SMA Negeri 2 Bagan Sinembah. Fakultas Teknik Universitas Negeri Medan, 2025.

Inovasi media pembelajaran menjadi kebutuhan penting di era digital, terutama pada mata pelajaran Informatika yang kerap dianggap sulit oleh siswa. Penelitian ini bertujuan mengembangkan *game edukasi* berbasis Android sebagai media pembelajaran interaktif pada materi algoritma dan pemrograman di SMA Negeri 2 Bagan Sinembah. Permasalahan yang melatarbelakangi penelitian adalah rendahnya motivasi belajar siswa, keterbatasan variasi media pembelajaran, serta dominasi metode ceramah yang menimbulkan kejenuhan. Penelitian menggunakan model pengembangan ADDIE (*Analysis, Design, Development, Implementation, Evaluation*) dengan subjek siswa kelas X-1. Instrumen penelitian berupa angket validasi ahli materi, ahli media, uji akseptabilitas, dan angket motivasi siswa. Hasil validasi ahli menunjukkan bahwa produk *game edukasi* termasuk kategori sangat layak untuk digunakan. Respon siswa juga menegaskan tingkat akseptabilitas yang tinggi. Selain itu, hasil uji motivasi memperlihatkan adanya peningkatan signifikan antara nilai pretest dan posttest setelah penerapan media. Dengan demikian, *game edukasi* berbasis Android yang dikembangkan dinilai efektif sebagai media pembelajaran interaktif. Media ini tidak hanya meningkatkan motivasi belajar, tetapi juga memudahkan siswa memahami konsep algoritma dan pemrograman secara lebih menarik, kontekstual, dan menyenangkan.

Kata kunci: *Game edukasi*, Android, RPG Maker, algoritma, pemrograman, motivasi belajar.

ABSTRACT

Yenti Ariska Putri: *Development of Android-Based Educational Games as Interactive Learning Media for Informatics Subjects at Bagan Sinembah 2 Public High School. Faculty of Engineering, Medan State University, 2025.*

Innovation in learning media has become an important necessity in the digital era, especially in computer science, which is often considered difficult by students. This study aims to develop an Android-based educational game as an interactive learning medium for algorithm and programming material at SMA Negeri 2 Bagan Sinembah. The problems underlying this research are low student motivation, limited variety of learning media, and the dominance of lecture methods that cause boredom. The research used the ADDIE (Analysis, Design, Development, Implementation, Evaluation) development model with students in class X-1 as subjects. The research instruments were expert material validation questionnaires, media expert questionnaires, acceptability tests, and student motivation questionnaires. Expert validation results showed that the educational game product was highly suitable for use. Student responses also confirmed a high level of acceptability. In addition, motivation test results showed a significant increase between pretest and posttest scores after the media was implemented. Thus, the Android-based educational game developed was considered effective as an interactive learning medium. This media not only increases learning motivation but also makes it easier for students to understand algorithm and programming concepts in a more interesting, contextual, and enjoyable way.

Keywords: Educational game, Android, RPG Maker, algorithm, programming, learning motivation