Nuraini, L. 2021.*"Implementasi teknologi Augmented Reality dalam pengembangan media pembelajaran materi komputer jaringan. (Studi kasus SMK Negeri 1 Ketapang)"*. Tugas Akhir. Yogyakarta: Program Studi Pendidikan Teknologi Informasi Universitas Teknologi Yogyakarta. Pembimbing: Dwi Ratnawati, S.Pd., M.Pd.

ABSTRAK

Penelitian ini bertujuan untuk mengembangkan Media Pembelajaran Augmented Reality Berbasis Android Mata Pelajaran Komputer Jaringan kelas X jurusan Teknik Komputer dan Jaringan dan menguji kelayakan media pembelajaran. Media pembelajaran ini mencakup kompetensi dasar yaitu memahami perangkat keras jaringan, memahami sistem operasi jaringan, memahami pengembangan jaringan sederhana. Metode penelitian yang digunakan dalam penelitian ini adalah *Research and Development* (R&D). Langkah-langkah dalam penelitian ini yaitu: (1) Merumuskan potensi dan masalah, (2) Pengumpulan data, (3) Desain produk, (4) Validasi desain, (5) Revisi desain, (6) Uji coba produk, (7) Revisi produk, dan (8) Uji coba pemakaian. Hasil penelitian ini berupa aplikasi Android dengan format *.apk. Berdasarkan uji kelayakan media pembelajaran oleh ahli media didapatkan hasil kelayakan media pembelajaran yaitu 73,07% dengan kategori "layak". Uji kelayakan oleh ahli materi didapatkan hasil kelayakan media pembelajaran yaitu 87,5% dengan kategori "sangat layak", dan hasil uji pengguna 85,26% dengan kategori "sangat layak". Efektivitas media mendapat nilai rata-rata N-Gain Score 64,41% dengan kategori cukup efektif. Berdasarkan hasil uji kelayakan dan uji efektivitas yang telah dilakukan, dapat disimpulkan bahwa Media Pembelajaran Materi Komputer Jaringan cukup efektif digunakan sebagai alat bantu pembelajaran.

Kata Kunci: Media Pembelajaran AR, Android, Komputer Jaringan Dasar, *Research and Development* (R&D)

Nuraini, L. 2021. *"Implementation of Augmented Reality technology in the development of learning media for computer network materials. (Case study of SMK Negeri 1 Ketapang)"*. Thesis. Yogyakarta: Information Technology Education Study Program, Yogyakarta University of Technology. Advisor: Dwi Ratnawati, S.Pd., M.Pd.

ABSTRACT

*This study aims to develop Augmented Reality Learning Media Based on Android Computer Network Subject Class X majoring in Computer and Network Engineering and test the feasibility of learning media. This learning media includes basic competencies, namely understanding network hardware, understanding network operating systems, understanding simple network development. The research method used in this research is Research and Development (R&D). The steps in this research are: (1) Formulating potential and problems, (2) Data collection, (3) Product design, (4) Design validation, (5) Design revision, (6) Product testing, (7) Product revision, and (8) Usage trials. The result of this research is an Android application with *.apk format. Based on the feasibility test of learning media by media experts, the results of the feasibility of learning media were 73.07% with the "adequate" category. The feasibility test by material experts obtained the results of the feasibility of learning media, namely 87.5% with the "very feasible" category, and the user test results of 85.26% with the "very feasible" category. The effectiveness of the media got an average N-Gain Score of 64.41% with a fairly effective category. Based on the results of the feasibility test and effectiveness test that have been carried out, it can be concluded that the Learning Media for Computer Network Materials is quite effective in being used as a learning aid.*

Keywords: AR Learning Media, Android, Basic Network Computers, Research and Development (R&D)