ABSTRAK

Yuli Happy Marpaung, NIM. 5173351049, Pengembangan Media Pembelajaran Interaktif Berbasis *Augmented Reality* Pada Mata Pelajaran Komputer dan Jaringan Dasar Kelas X Di SMK PAB 1 Helvetia. Program Studi Pendidikan Pendidikan Teknologi Informatika dan Komputer, Fakultas Teknik, Universitas Negeri Medan, 2022.

Penelitian ini bertujuan untuk mengetaui cara mengembangkan Media Pembelajaran Interaktif Berbasis *Augmented Reality* Pada Mata Pelajaran Komputer dan Jaringan Dasar Kelas X Di SMK PAB 1 Helvetia dan untuk mengetahui tingkat kelayakan serta untuk mengetahui efektivitas Media Pembelajaran Interaktif Berbasis *Augmented Reality* Pada Mata Pelajaran Komputer dan Jaringan Dasar Kelas X Di SMK PAB 1 Helvetia. Dalam media ini peserta didik dituntut untuk berpikir, interaktif, efektif dan efisien dalam mengikuti pembelajaran dengan Media Pembelajaran Interaktif Berbasis *Augmented Reality*. Jenis penelitian ini adalah penelitian pengembangan atau *research and Development* (R&D) dan model penelitian ADDIE. Model penelitian ADDIE meliputi tahapan yaitu pertama analisis, analisis kebutuhan meliputi analisis kinerja dan analisis kebutuhan. Kedua *design* yaitu menyusun garis besar media media berbasis *augmented reality*, mendesain isi materi sesuai pembelajaran, menentukan video pembelajaran, mendesign soal, pemilihan desain penulisan media berbasis *Augmented Reality*. Ketiga *development* yaitu mengembangkan media berbasis *Augmented Reality* yang telah didesain menggunakan aplikasi unity 2017.4.10f1(Bit-64) dan vuforia serta format file yang dihasilkan yaitu *Android Application Package* (.apk). Kelayakan media diuji berdasarkan penilaian ahli media dengan nilai rata-rata 90,83% dengan kriteria sangat layak. Kedua validator ahli materi 90,27% dengan kriteria sangat layak. Berdasarkan hasil tersebut media berbasis *Augmented Reality* sangat layak untuk digunakan peserta didik. Dalam uji coba media pembelajaran terhadap peserta didik kelas X TKJ SMK PAB 1 Helvetia adalah sangat efektif untuk digunakan. Dilihat dari hasil post-test pada uji coba mendapatkan nilai 94,66 dan 22 peserta didik mencapai ≥75, hasil uji coba N-Gain dengan hasil sebesar 73% katergori tinggi dan 27% kategori sedang. Rata-rata hasil N-Gain adalah 0,84 dengan kategori tinggi. Kelima *evaluation* yaitu terdapat beberapa saran dari ahli media dan materi untuk kelayakan media berbasis *Augmented Reality* maka dapat disimpulkan bahwa media pembelajaran interaktif berbasis *Augmented Reality* yang dikembangkan sangat layak untuk digunakan.

Kata Kunci: *Media Pembelajaran, Augmented Reality, Hasil Belajar.*

ABSTRACT

Yuli Happy Marpaung, NIM. 5173351049, Development of Augmented Reality-Based Interactive Learning Media in Computer and Basic Networking Subjects Class X at SMK PAB 1 Helvetia. Informatics and Computer Technology Education Education Study Program, Faculty of Engineering, Medan State University, 2022.

This study aims to find out how to develop Augmented Reality-Based Interactive Learning Media in Class X Computer and Basic Network Subjects at SMK PAB 1 Helvetia and to determine the feasibility level and to determine the effectiveness of Augmented Reality-Based Interactive Learning Media in Computer and Network Subjects. Elementary Class X at SMK PAB 1 Helvetia. In this media, students are required to think, be interactive, effective and efficient in participating in learning with Augmented Reality-Based Interactive Learning Media. This type of research is research and development (R&D) and the ADDIE research model. The ADDIE research model includes the first stages of analysis, needs analysis includes performance analysis and needs analysis. The two designs are compiling an outline of augmented reality-based media, designing material content according to learning, determining learning videos, designing questions, selecting Augmented Reality-based media writing designs. The three developments are developing Augmented Reality-based media that has been designed using the unity 2017.4.10f1 (Bit-64) and vuforia applications and the resulting file format is the Android Application Package (.apk). The feasibility of the media was tested based on the assessment of media experts with an average value of 90.83% with very feasible criteria. Both validators are material experts 90.27% with very decent criteria. Based on these results, Augmented Reality-based media is very feasible for students to use. In the trial of learning media for students of class X TKJ SMK PAB 1 Helvetia is very effective to use. Judging from the results of the post-test in the trial, the score was 94.66 and 22 students reached 75, the results of the N-Gain trial were 73% in the high category and 27% in the medium category. The average N-Gain result is 0.84 in the high category. The fifth evaluation is that there are several suggestions from media and material experts for the feasibility of Augmented Reality-based media, it can be concluded that the Augmented Reality-based interactive learning media developed is very feasible to use.

Keywords: Learning Media, Augmented Reality, Learning Outcomes.