

ABSTRAK

Ferdiansyah Ramadan Tanjung, NIM: 5172111002, “Pengembangan Media Pembelajaran Video Berbasis Animasi 3D Pada Mata Pelajaran Konstruksi dan Utilitas Gedung Kelas XI Program Studi Desain Permodelan dan Informasi Bangunan SMK Negeri 1 Percut Sei Tuan”. Skripsi. Jurusan Pendidikan Teknik Bangunan. Program Studi Pendidikan Teknik Bangunan. Fakultas Teknik - Universitas Negeri Medan. 2023.

Tujuan penelitian ini adalah untuk: (1) Mengembangkan media pembelajaran video berbasis animasi 3D pada mata pelajaran Konstruksi dan Utilitas Gedung siswa kelas XI DPIB di SMK Negeri 1 Percut Sei Tuan. (2) Mengetahui tingkat kelayakan produk media pembelajaran yang dikembangkan sebagai media pembelajaran untuk siswa.

Penelitian ini merupakan penelitian pengembangan (*Research and Development*). Model pengembangan yang digunakan adalah model desain instruksional ADDIE yang dibatasi hanya: (1) *analysis*, (2) *design*, dan (3) *development*. Penelitian ini dilakukan di SMK Negeri 1 Percut Sei Tuan dengan responden penelitian siswa kelas XI Program Keahlian Desain Permodelan dan Informasi dan Bangunan (DPIB). Instrumen yang digunakan berupa angket. Angket digunakan untuk menguji kelayakan media pembelajaran melalui validasi dua ahli materi, dan satu ahli media. Teknik analisis data dilakukan dengan hitungan statistik deskriptif kuantitatif.

Adapun hasil penelitian adalah: Kelayakan produk berdasarkan validasi ahli materi diperoleh persentase skor sebesar 82,94% termasuk dalam interpretasi “**sangat layak**“. Berdasarkan validasi ahli media diperoleh persentase skor sebesar 77,00% termasuk dalam interpretasi “**layak**“. Penilaian siswa melalui angket pengguna (*user*) mendapatkan persentase skor sebesar 85,53% termasuk dalam interpretasi “**sangat layak**“ dalam arti tingkat penerimaan oleh siswa tergolong tinggi. Dengan demikian media pembelajaran video berbasis animasi 3D yang dikembangkan “**sangat layak**” digunakan dan dapat dimanfaatkan sebagai media pembelajaran oleh siswa kelas XI DPIB SMK Negeri 1 Percut Sei Tuan.

Kata kunci: Pengembangan Media Pembelajaran Video, Animasi 3D, *SketchUp*, *EnsCape*, dan Konstruksi Utilitas Gedung.

ABSTRACT

Ferdiansyah Ramadan Tanjung, NIM: 5172111002, "Development of 3D Animation-Based Video Learning Media in Class XI Building Construction and Utility Subjects, Modeling and Building Information Design Study Program at SMK Negeri 1 Percut Sei Tuan." Thesis. Department of Building Engineering Education. Building Engineering Education Study Program. Faculty of Engineering - Medan State University. 2023.

The aim of this research is to: (1) Develop 3D animation-based video learning media for Building Construction and Utilities subjects for class XI DPIB students at SMK Negeri 1 Percut Sei Tuan. (2) Knowing the level of suitability of learning media products developed as learning media for students.

This research is development research (Research and Development). The development model used is the ADDIE instructional design model which is limited to: (1) analysis, (2) design, and (3) development. This research was conducted at SMK Negeri 1 Percut Sei Tuan with research respondents from class XI students of the Modeling and Information and Building Design Skills Program (DPIB). The instrument used is a questionnaire. The questionnaire was used to test the feasibility of learning media through validation by two material experts and one media expert. The data analysis technique was carried out using quantitative descriptive statistical calculations.

The results of the research are: Product feasibility based on material expert validation obtained a score percentage of 82.94%, including the "very feasible" interpretation. Based on media expert validation, a score percentage of 77.00% was obtained, including the "feasible" interpretation. Student assessment via a user questionnaire obtained a score percentage of 85,53%, including the interpretation of "very feasible" in the sense that the level of acceptance by students is relatively high. Thus, the 3D animation-based video learning media developed is "very feasible" for use and can be utilized as a learning medium by class XI DPIB students at SMK Negeri 1 Percut Sei Tuan.

Keywords: *Video Learning Media Development, 3D Animation, SketchUp, EnsCape, and Building Utility Construction.*