

ABSTRAK

TOMI HARTONO LUMBANTOBING. NIM. 5161111051. Pengembangan Media Instruksional Berbasis Multimedia Interaktif Menggunakan *Adobe Flash CS6* Pada Mata Pelajaran Estimasi Biaya Konstruksi Dan Properti Siswa Kelas XI Bisnis Konstruksi Dan Properti SMK Negeri 2 Sibolga. Pendidikan Teknik Bangunan. Fakultas Teknik. Universitas Negeri Medan.

Penelitian ini bertujuan untuk mengetahui kelayakan serta keefektifan media instruksional berbasis multimedia interaktif menggunakan *Adobe Flash CS6* pada mata pelajaran Estimasi Biaya Konstruksi dan Properti siswa kelas XI Bisnis Konstruksi Dan Properti SMK Negeri 2 Sibolga. Penelitian ini dilaksanakan di SMK Negeri 2 Sibolga, Jl. Maraden Pangabean NO.18 Sibolga Utara, Kota Sibolga. Dengan jumlah sampel 25 orang siswa kelas XI Bisnis Konstruksi Dan Properti. Metode penelitian menggunakan metode *Research And Development (R&D)* dan dipadukan dengan model pembelajaran ADDIE (*Analysis, Design, Development, Implementation, Evaluation*). Dari data yang diperoleh melalui angket yang ada, secara keseluruhan respon menilai media instruksional menggunakan *Adobe Flash CS6* layak digunakan meskipun dengan keefektifan yang rendah sebagai media instruksional berbasis multimedia. Uji kelayakan terhadap media instruksional berbasis multimedia interaktif yang dikembangkan oleh ahli materi mendapatkan rata-rata penilaian sebesar 4,43 dan dinyatakan "Sangat Layak/Baik", dan pengujian terhadap ahli media mendapatkan rata-rata penilaian 3,8 dan dinyatakan "Layak/Baik", dan pengujian terhadap ahli desain pembelajaran mendapatkan rata-rata penilaian 3,8 dan dinyatakan "Layak/Baik". Berdasarkan hasil pengelolaan data sebelum dan sesudah menggunakan media instruksional berbasis multimedia interaktif menggunakan *Adobe Flash CS6* pada mata pelajaran Estimasi Biaya Konstruksi Dan Properti diperoleh keefektifan mencapai peningkatan hasil belajar dengan *pre-test* dan *post-test*, yaitu $62,96 < 63,6$ dan dinyatakan bahwa media instruksional berbasis multimedia interaktif menggunakan *Adobe Flash CS6* pada mata pelajaran Estimasi Biaya Konstruksi Dan Properti dikategori "Rendah" dan kurang meningkatkan hasil belajar siswa dengan penilaian N-Gain sebesar 0,17. Berdasarkan data hasil belajar melalui tes hasil belajar dengan 15 soal pilihan berganda diperoleh 10 orang kategori "Cukup", 11 orang kategori "Rendah", 4 orang kategori "Sangat Rendah". Berdasarkan hasil uji kelayakan dan uji keefektifan maka dapat disimpulkan media instruksional berbasis multimedia interaktif yang dikembangkan rendah keefektifan dan layak dijadikan media instruksional pada materi Menghitung Kebutuhan Bahan Konstruksi Kolom.

Kata Kunci: *Pengembangan Media Instruksional, Media Instruksional Berbasis Multimedia Interaktif, Research And Development (R&D), ADDIE, Estimasi Biaya Konstruksi Dan Properti.*

ABSTRACT

TOMI HARTONO LUMBANTOBING. NIM. 5161111051. Instructional Media Development Based on Interactive Multimedia Using *Adobe Flash CS6* in the Subject Estimation of Construction and Property Costs for Class XI Students in Construction and Property Business at SMK Negeri 2 Sibolga. Building Engineering Education. Faculty of Engineering. Medan State University.

This study aims to determine the feasibility and effectiveness of interactive multimedia-based instructional media using *Adobe Flash CS6* in the subject of Construction and Property Cost Estimation for class XI students of Construction and Property Business at SMK Negeri 2 Sibolga. This research was conducted at SMK Negeri 2 Sibolga, Jl. Maraden Pangabean NO.18 North Sibolga, Sibolga City. With a total sample of 25 students of class XI Construction and Property Business. The research method uses the *Research and Development (R&D)* method combined with the *ADDIE* learning model (*Analysis, Design, Development, Implementation, Evaluation*). From the data obtained through existing questionnaires, the overall response assesses instructional media using *Adobe Flash CS6* is feasible even though it has low effectiveness as a multimedia-based instructional media. The feasibility test of interactive multimedia-based instructional media developed by material experts received an average rating of 4.43 and was declared "Very Appropriate / Good", and testing of media experts received an average rating of 3.8 and declared "Feasible / Good ", And testing of instructional design experts get an average rating of 3.8 and declared " Feasible / Good ". Based on the results of data management before and after using interactive multimedia-based instructional media using *Adobe Flash CS6* in the subject of Estimating Construction and Property Costs, the effectiveness of achieving an increase in learning outcomes with *pre-test* and *post-test* is obtained, namely $62.96 < 63.6$ and stated that interactive multimedia-based instructional media using *Adobe Flash CS6* in the subject of Estimating Construction and Property Costs is in the "Low" category and does not improve student learning outcomes with an N-Gain assessment of 0.17. Based on data on learning outcomes through learning outcomes tests with 15 multiple choice questions, 10 people were in the "Enough" category, 11 people in the "Low" category, 4 people in the "Very Low" category. Based on the results of the feasibility test and effectiveness test, it can be concluded that the interactive multimedia-based instructional media developed is low in effectiveness and worthy of being used as instructional media in the material of Calculating the Need for Column Construction Materials.

Keywords: *Instructional Media Development, Interactive Multimedia-Based Instructional Media, Research And Development (R&D), ADDIE, Estimation of Construction and Property Costs.*