ABSTRAK

Cindy Aprillia Arfani : *Pengembangan Multimedia Interaktif Pada Mata Pelajaran Pekerjaan Dasar Teknik Mesin Kelas X Program Keahlian Teknik Pemesinan Di SMK Swasta Dwiwarna Medan.* Skripsi. Fakultas Teknik. Universitas Negeri Medan. 2020

Penelititan ini bertujuan untuk mengetahui : (1) Mengembangkan multimedia interaktif pada mata pelajaran pekerjaan dasar teknik mesin kelas X TPM di SMK Swasta Dwiwarna Medan, (2) Tingkat kelayakan multimedia interkatif yang dikembangkan sebagai media pembelajaran, dan (3) Keefektifan multimedia interaktif yang dikembangkan sebagai media pembelajaran.

Penelitian ini merupakan penelitian pengembangan *(Research and Development)*. Model pengembangan yang digunakan adalah model ADDIE, meliputi tahapan *analyze* (analisis), *design* (perancangan), *development* (pengembangan), *implementation* (implementasi), *evaluation* (evaluasi). Instrumen yang digunakan dalam penelitian ini berupa angket dan soal tes. Angket digunakan untuk mengetahui kelayakan media melalui validasi ahli media, ahli materi, ahli desain pembelajaran dan penilaian siswa. Soal tes digunakan untuk mengetahui keefektifan multimedia interaktif dengan melalukan *pre – test* dan *post – test.*

Berdasarkan hasil penelitian diketahui bahwa : (1) pengembangan produk multimedia interaktif pada mata pelajaran PDTM pada kompetensi dasar memahami konsep penggunaan alat ukur pembanding dan atau alat ukur dasar dan memahami alat ukur mekanik presisi. (2) kelayakan produk berdasarkan validasi ahli media memperoleh skor sebesar 4,6 dengan interpretasi “sangat layak”. Untuk kelayakan hasil validasi ahli materi memperoleh rerata skor sebesar 4,765 dengan interpretasi “sangat layak”. Untuk kelayakan hasil validasi ahli desain pembelajaran memperoleh skor rerata sebesar 4,54 dengan interpretasi “sangat layak”, dan hasil penilaian siswa melalui angket pengguna dengan uji coba one to one mendapatkan rerata skor sebesar 4,58 dengan interpretasi “akspentasi tinggi” dan uji coba skala kecil mendapatkan rerata skor sebesar 4,65 dengan interpretasi “akspentasi tinggi”. Melalui hasil validasi multimedia interaktif yang dikembangkan sangat layak digunakan sebagai media pembelajaran, dan (3) keefektifan media pembelajaran multimedia pembelajaran berdasarkan rerata *pre-test* memperoleh skor sebesar 47 dan rerata *post-test* memperoleh skor sebesar 82,5. Dan memperoleh kenaikan hasil belajar siswa sebesar 35,5 atau 75,53%. Hasil penelitian menunjukkan bahwa multimedia interaktif yang dikembangkan layak digunakan sebagai media pembelajaran siswa kelas X TPM di SMK Swasta Dwiwarna Medan.

Kata Kunci : Pengembangan Media, Multimedia Interaktif

ABSTRACT

Cindy Aprillia Arfani: ***The Development of Interactive Multimedia Basic Work Subject of Mechanical Engineering Class X Machining Engineering Expertise Program at Dwiwarna Private Vocational School, Medan.*** **Essay. Faculty of Engineering. Medan State University. 2020**

This research aims to find out: (1) Developing interactive multimedia on basic work subjects of mechanical engineering in class X of Mechanical Engineering at Dwiwarna Private Vocational School in Medan, (2) The feasibility level of interactive multimedia developed as a learning medium, and (3) The effectiveness of interactive multimedia which was developed as a learning medium.

This research is a research development *(Research and Development)*. The development model used is the ADDIE model, which includes thestages *analyze*, *design*, *development*, *implementation*, *evaluation*. The instruments used in this study were questionnaires and test questions. The questionnaire was used to determine the feasibility of the media through the validation of media experts, material experts, learning design experts and student assessments. Test questions are used to determine the effectiveness of interactive multimedia by doing a *pre-test* and *post-test.*

Based on the results of the study, it is known that: (1) Interactive multimedia product development in the subject of basic mechanical engineering work on basic competencies in understanding the concept of using comparative measuring instruments and / or basic measuring instruments and understanding precision mechanical measuring instruments. (2) The feasibility of the product based on the validation of the media expert obtained a score of 4.6 with the interpretation "very feasible". For the feasibility of the results of the validation, the material expert obtained a mean score of 4.765 with the interpretation "very feasible". For the feasibility of the results of the validation, the learning design expert obtained a mean score of 4.54 with a "very feasible" interpretation, and the results of student assessments through a user questionnaire with one to one trial obtained a mean score of 4.58 with a "high accent" interpretation small scale get a mean score of 4.65 with the interpretation of "high accent". Through the results of the interactive multimedia validation developed, it is very feasible to be used as a learning medium, and (3) The effectiveness of multimedia learning media based on themean *pre-test* score of 47 and themean *post-test* score of 82.5. And get an increase in student learning outcomes by 35.5 or 75.53%. The results showed that the interactive multimedia developed was feasible to be used as a learning medium for grade X students of Mechanical Engineering at the Dwiwarna Private Vocational School, Medan.

Keywords: Media Development, Interactive Multimedia