ABSTRAK

Juntan Dionisus Tampubolon : *Pengembangan Media Pembelajaran Job Sheet Pada Mata Pelajaran Gambar Teknik Siswa Kelas X Program Keahlian Desain Permodelan Informasi Bangunan SMK Negeri 14 Medan.* Skripsi. Fakultas Teknik. Universitas Negeri Medan. 2022.

Penelitian ini bertujuan untuk: (1) mengembangkan job sheet Gambar Teknik bangunan untuk peserta didik kelas X Program Keahlian Desain Permodelan Informasi Bangunan di SMK Negeri 14 Medan dan (2) Mengetahui kelayakan media pembelajaran job sheet Gambar Teknik Bangunan yang di kembangkan di SMK Negeri 14 Medan.

Jenis penelitian yang digunakan adalah R&D (Research and Development) yang mengacu pada model pengembangan Four-D (define, design, develop, desiminate). Penelitian dilakukan di SMK Negeri 14 Medan dan waktu penelitian dilakukan pada tahun ajaran 2021/2022. Teknik pengumpulan data dilakukan dengan analisis awal pada siswa dengan cara menyebarkan angket lewat Google Form dan juga analisis kebutuhan terhadap guru gambar teknik bangunan melalui kuisioner angket, instrumen yang digunakan adalah instrumen non tes berupa angket tertutup dengan skala linkert 5 pilihan jawaban. Angket divalidasi oleh dosen pembimbing kemudian diberikan kepada ahlimateri dan media untuk memvalidasi job sheet dan dilakukan uji kelayakan berupa respon peserta didik. Analisis data pengembangan dilakukan secara deskriptif. Sedangkan analisis data kelayakan dilakukan dengan konversi data kuantitatif kedalam data kualitatif.

Hasil penelitian ini menunjukkan bahwa: (1) media pembelajaran job sheet Gambar Teknik Bangunan yang dikembangkan melalui beberapa langkah, yaitu: (a) mendefinisikan kebutuhan dengan analisis awal, analisis peserta didik dan kurikulum, analisis materi, perumusan tujuan; (b) melakukan perancangan dengan menyusun parameter garis besar isi job sheet, pemilihan format, perancangan awal job sheet; (c) melakukan pengembangan dengan validasi produk oleh ahli media dan ahli materi yang dilanjutkan revisi, pengenalan produk serta uji kelayakan pada peserta didik sehingga dihasilkan produk akhir job sheet Gambar Teknik Bangunan; (d) melakukan penyebaran produk secara terbatas pada guru mata pelajaran Gambar Teknik Bangunan di SMK Negeri 14 Medan. (2) Kelayakan media pembelajaran job sheet Gambar Teknik Bangunan kelas X Program Keahlian Desain Permodelan Informasi Bangunan (DPIB) ditentukan dari hasil validasi ahli media dengan rerata skor 4,55 dan ahli materi 4,32 yang termasuk dalam kategori sangat layak dan hasil respon peserta didik 4,55 dalam kategori sangat layak. Berdasarkan hasil penelitian yang telah dilakukan, media

pembelajaran job sheet gambar teknik bangunan kelas X ini dinyatakan sangat layak untuk digunakan dalam pembelajaran.

Kata Kunci : Pengembangan *Job Sheet*, *Research and Development (R&D)*, Gambar Teknik, 4D

ABSTRACT

Juntan Dionisus Tampubolon : *Development of Jobsheet Learning Media in Engineering Drawing Subjects for Class X Students of the Building Information Modeling Design Expertise Program at SMK Negeri 14 Medan.* Skripsi. Fakultas Teknik. Universitas Negeri Medan. 2022.

This study aims to: (1) develop a building engineering drawing job sheet for class X students of the Building Information Modeling Design Expertise Program at SMK Negeri 14 Medan and (2) determine the feasibility of learning media for a building engineering drawing job sheet developed at SMK Negeri 14 Medan.

The type of research used is R&D (Research and Development) which refers to the Four-D development model (define, design, develop, desiminate). The research was conducted at SMK Negeri 14 Medan and the time of the research was carried out in the 2021/2022 academic year. The data collection technique was carried out by preliminary analysis on students by distributing questionnaires via Google Form and also analyzing the needs of building engineering drawing teachers through a questionnaire questionnaire, the instrument used was a non-test instrument in the form of a closed questionnaire with a linkert scale of 5 answer choices. The questionnaire was validated by the supervisor and then given to the material and media experts to validate the job sheet and a feasibility test was carried out in the form of student responses. Analysis of development data was carried out descriptively. While the feasibility data analysis is done by converting quantitative data into qualitative data.

The results of this study indicate that: (1) the learning media for the Building Engineering Drawing job sheet was developed through several steps, namely: (a) defining needs with initial analysis, student and curriculum analysis, material analysis, and goal formulation; (b) carry out the design by compiling the parameters of the outline of the job sheet contents, the selection of formats, the initial design of the job sheet; (c) carry out development with product validation by media experts and material experts followed by revision, product introduction and feasibility testing on students so that the final product of the Building Engineering Drawing job sheet is produced; (d) limited distribution of the product to teachers of Building Engineering Drawing subjects at SMK Negeri 14 Medan. (2) The feasibility of learning media for job sheet Drawing Engineering Class X Building Information Modeling Design Expertise Program (DPIB) is determined from the results of media expert validation with an average score of 4.55 and material expert 4.32 which is included in the very feasible category and the results of participant responses 4.55 in the very decent category. Based on the results of

the research that has been done, the learning media for the class X engineering drawing job sheet is declared very feasible to be used in learning.

Keywords : Job Sheet Development, Research and Development (R&D), Technical Drawing,4D.