ABSTRAK

Renaldo Royen Sihite, NIM 5163121024: *Pengembangan Media Pembelajaran Berbasis Android Pada Mata Pelajaran Gambar Teknik Otomotif Kelas X TKR di SMKS Yapim Biru-Biru Tahun Ajaran 2020/ 2021*. Skripsi. Fakultas Teknik. Universitas Negeri Medan. 2021.

Penelitian ini bertujuan untuk mengembangkan media pembelajaran gambar teknik dengan aplikasi berbasis android yang berisi kompetensi dasar mengintegrasikan persyaratan gambar proyeksi piktorial (3D) berdasarkan aturan gambar proyeksi pada gambar teknik untuk siswa kelas X TKR SMK dan mengetahui kelayakan, kepraktisan, dan efektifitas media pembelajaran berbasis android berdasarkan penilaian ahli materi, ahli media, ahli desain pembelajaran, praktisi dan siswa.

Tujuan Penelitian, yaitu (1) mengembangkan media berbasis *android* pada mata pelajaran gambar teknik kelas X TKR di SMKS YAPIM Biru-biru. (2) mengetahui kelayakan media berbasis *android* pada mata pelajaran gambar teknik kelas X TKR di SMKS YAPIM Biru-biru. (3) mengetahui kepraktisan media berbasis *android* pada mata pelajaran gambar teknik kelas X TKR di SMKS YAPIM Biru-biru. (4) mengetahui keefektifan media berbasis *android* pada mata pelajaran gambar teknik kelas X TKR di SMKS YAPIM Biru-biru.

Jenis penelitian pengembangan ini adalah prosedur pengembangan ADDIE dilakukan melalui 5 tahap yaitu (a). tahap analisis, (b). tahap perencanan ,(c). tahap pengembangan, (d). tahap implementasi (penerapan) dan, (e). tahap evaluasi.

Hasil penelitian ini menunjukkan sebagai berikut: (1) Hasil analisis validasi media pembelajaran gambar teknik berbasis android sebesar 0,93 tergolong pada kategori validitas tinggi dan layak digunakan. (2) Hasil analisis kepraktisan diperoleh 97% peserta didik memberikan respon sangat positif dan 3% peserta didik memberikan respon positif. Begitupun dengan respon guru 100% guru memberikan respon sangat positif, sehingga media pembelajaran gambar teknik berbasis android yang dikembangkan dikatakan praktis. (3) Hasil analisis keefektifan pada analisis taraf signifikan pada uji-t 1 signifikan diperoleh $< 0,05$ sehingga dapat disimpulkan bahwa secara signifikan media pembelajaran berbasis *android* efektif terhadap hasil belajar peserta didik.

Kata Kunci: Penelitian dan Pengembangan, Media Pembelajaran, Media berbasis *Android*

ABSTRACT

Renaldo Royen Sihite, NIM 5163121024: *Development of Android-Based Learning Media in Automotive Engineering Drawing Subject Class X TKR at SMKS Yapim Biru-biru Academic Year 2020/2021*. Essay. Faculty of Engineering, Universitas Negeri Medan. 2021.

This study aims to develop technical drawing learning media with an android-based application that contains basic competencies to integrate the requirements of pictorial projection images (3D) based on projection drawing rules. on technical drawings for class X TKR SMK students and find out the feasibility, practicality, and effectiveness of android-based learning media based on the assessment of material experts, media experts, learning design experts, practitioners and students.

The research objectives are (1) to develop-based media *android* in technical drawing subjects for class X TKR at SMKS YAPIM Biru-biru. (2) determine the feasibility of-based media *android* in the technical drawing subject for class X TKR at SMKS YAPIM Biru- biru. (3) knowing the practicality of-based media *android* in technical drawing subjects for class X TKR at SMKS YAPIM Biru- biru. (4) knowing the effectiveness of-based media *android* on technical drawing subjects for class X TKR at SMKS YAPIM Biru-biru.

This type of development research is the ADDIE development procedure carried out through 5 stages, namely (a). analysis stage, (b). planning stage, (c). development stage, (d). implementation phase (implementation) and, (e). evaluation stage.

The results of this study indicate the following: (1) The results of the validation analysis of the android-based technical drawing learning media of 0.93 belong to the high validity category and are suitable for use. (2) The results of practicality analysis obtained 97% of students gave a very positive response and 3% of students gave a positive response. Likewise with the teacher's response, 100% of the teachers gave a very positive response, so that the android-based technical drawing learning media developed was said to be practical. (3) The results of the effectiveness analysis on the analysis of the significance level on the t-test 1 significant obtained <0.05 so it can be concluded that-based learning media is significantly *android* effective on student learning outcomes.

Keywords: Research and Development, Learning Media, *Android* based Learning