ABSTRAK

Albinus Andy Kurniawan, **Pengembangan Media Pembelajaran Modul dan Trainer Audio Power Amplifier Pada Mata Pelajaran Perekayasaan Sistem Audio Di SMK Karya Guna Jakarta.** Skripsi, Jakarta, Program Studi Pendidikan Teknik Elektronika, Fakultas Teknik, Universitas Negeri Jakarta. 2019. Dosen Pembimbing Dr. Moch. Sukardjo, M.Pd dan Drs.Mufti Ma'sum, M.Pd.

Penelitian ini bertujuan untuk: (1) membuat rancang bangun, (2) mengetahui unjuk kerja, dan (3) menguji tingkat kelayakan media pembelajaran trainer audio power amplifier OCL. Media pembelajaran ini menggunakan acuan kompetensi dasar mata pelajaran perekayasaan sistem audio. Penelitian ini dilaksanakan di SMK Karya Guna Kota Jakarta pada jurusan Teknik Audio Video kelas XI. Waktu penelitian dilaksanakan bulan Mei 2019. Penelitian ini menggunakan metode Research and Development, yang meliputi: (1) perencanaan, (2) analisis kebutuhan, (3) desain produk, (4) revisi, (5) ujicoba pemakaian. Objek penelitian ini adalah trainer audio power amplifier OCL dan jobsheet. Pengumpulan data didapatkan dari pengujian unjuk kerja produk dan penilaian angket penelitian oleh ahli materi dan ahli media.

Hasil penelitian diketahui bahwa: (1) trainer terusun dari rangkaian catu daya, audio amplifier OCL, VU meter, titik-titik ukur rangkaian, saklar simulasi kerusakan dan protektor speaker, (2) modul tersusun dari petunjuk penggunaan trainer dan delapan jobsheet praktikum, (3) hasil unjuk kerja diperoleh rangkaian catu daya ganda terukur +25V dan -25V, sedangkan catu daya tunggal terukur +12V, audio amplifier OCL memiliki keluaran daya sebesar 50,06W, VU meter akan bekerja pada input audio dengan tegangan 0,52V, protektor speaker mampu mendeteksi tegangan DC pada output amplifier dengan baik, (4) 25 buah saklar simulasi kerusakan dapat berfungsi dengan baik (5) hasil uji validasi isi oleh ahli materi memperoleh persentase sebesar 89,4%. Hasil uji validasi konstruk memperoleh persentase sebesar 79,2% untuk aspek materi, 83,4% untuk aspek estetika, dan keseluruhan mendapat persentase sebesar 80,5% dan (6) uji coba pemakaian oleh siswa memperoleh rata-rata jumlah skor 61,27 dan dari keseluruhan aspek mendapat persentase sebesar 76,6%.

Berdasarkan tingkat kelayakan Rating Scale, maka dapat disimpulkan bahwa media pembelajaran modul dan *trainer* audio *power amplifier* sangat layak digunakan sebagai media pembelajan untuk mata pelajaran perekayasaan sistem audio, pada jurusan teknik audio video di SMK Karya Guna Jakarta.

Kata-kata kunci: Media, Modul, Trainer, Audio Power Amplifier

ABSTRAC

Albinus Andy Kurniawan, **Development of Learning Media module and Trainer Audio Power Amplifier on the subject of Audio systems Engineering in SMK Karya Guna Jakarta**. Minithesis, Jakarta, Electronic Engineering Education Study Program, Faculty of Engineering, Universitas Negeri Jakarta. 2019. Supervisor: Dr. Moch. Sukardjo, M. Pd and Drs. Mufti Ma'sum, M. Pd.

This research aims to: (1) make the design, (2) know the performance, and (3) test the feasibility level of learning media eligibility for the OCL audio power amplifier. This learning Media uses basic competency reference for audio system engineering subjects. This research was conducted in the VOCATIONAL works of the city of Jakarta in Audio Video Engineering class XI. The research took place in May 2019. This research uses the Research and Development methods, which include: (1) planning, (2) needs analysis, (3) product design, (4) revisions, (5) Trial usage. The object of this research is the audio trainer power amplifier OCL and Jobsheet. Data collection is derived from product performance testing and Research poll assessment by material experts and media experts.

The results of the research are known that: (1) The trainers of the circuit supply series, audio amplifier OCL, VU meter, circuit gauge points, switch simulation damage and speaker protectors, (2) modules are composed of instructions for the use of trainers and eight The Praktikum Jobsheet, (3) The results of the work were obtained by a measured dual power supply circuit + 25V and-25V, while the single power supply was measured + 12V, the OCL audio amplifier has a power output of 50, 06W, the VU meter will work on audio inputs with voltage 0, 52V, The Speaker protectors are able to detect the DC voltage in the amplifier output well, (4) 25 pieces of the damage simulation switch can function properly (5) test results of content validation by the material experts gaining a percentage of 89.4%. The receipt of the Construc validation test results in a percentage of 79.2% for the material aspect, 83.4% for the aesthetic aspect, and the overall gets a percentage of 80.5% and (6) the test of use by students earns an average number of scores of 61.27 and from the overall The aspect gets a percentage of 76.6%.

Based on the feasibility level of the Rating Scale, it can be concluded that the Learning Media module and the audio power amplifier is very worthy to be used as a media driven to the engineering of audio systems, in the Department of Audio Engineering Video at SMK Karya Guna Jakarta.

Keywords: Media, modules, trainers, Audio Power Amplifier