

ABSTRAK

Darkhot Hulaimy : PENGEMBANGAN TRAINER SISTEM KENDALI MOTOR LISTRIK BERBASIS OUTSEAL PLC V.5 SEBAGAI ALAT PRAKTIK SISWA PADA MATA PELAJARAN INSTALASI MOTOR LISTRIK KELAS XI TITL SMK N 5 MEDAN

Media pembelajaran merupakan salah satu komponen pembelajaran yang mempunyai peranan penting dalam kegiatan belajar mengajar. Pemanfaatan media seharusnya menjadi bagian yang diperhatikan guru selaku fasilitator dalam proses pembelajaran. Berdasarkan hasil observasi ke sekolah dan melihat proses pembelajaran, peneliti menemukan beberapa masalah yang berhubungan dengan prasarana yang mendukung proses kegiatan belajar mengajar. Berdasarkan masalah tersebut peneliti mencoba mengembangkan Trainer Sistem kendali Motor listrik Berbasis Outseal PLC dengan tujuan untuk mempermudah proses pembelajaran dan mempermudah peserta didik untuk memahami materi yang diajarkan guru dengan melakukan proses pembelajaran praktek.

Penelitian ini bertujuan untuk mengetahui apakah Trainer Sistem Kendali Motor Listrik layak digunakan pada pembelajaran Instalasi Motor Listrik. Penelitian ini dilakukan pada siswa kelas XI Jurusan Teknik Instalasi Tenaga Listrik SMK N 5 Medan. Prosedur pengembangan media dilakukan dengan metode Research and Development atau lebih dikenal dengan R&D dan menggunakan model desain pengembangan Analysis, Design, Development, Implementation and Evaluation (ADDIE).

Berdasarkan data yang didapat selama penelitian, hasil validasi dari ahli media dan materi maka media pembelajaran ini dinyatakan memenuhi persyaratan dan layak digunakan sebagai media pembelajaran dibuktikan dari hasil penilaian kelayakan ahli materi memperoleh kategori kelayakan sangat layak dengan rerata presentase 92 % , hasil penilaian kelayakan dari ahli media memperoleh kategori kelayakan sangat layak dengan rerata presentase 86 %. Dengan demikian pengembangan media pembelajaran sangat baik dilakukan dengan melihat nilai dari para ahli validator dan juga tanggapan positif yang mendukung media pembelajaran.

Kata Kunci : Pengembangan, Trainer, SMK N 5 Medan

ABSTRACT

Darkhot Hulaimy: THE DEVELOPMENT OF ELECTRIC MOTOR CONTROL SYSTEM TRAINER BASED ON OUTSEAL PLC V.5 AS STUDENT PRACTICES IN THE STUDENTS INSTALLATION OF ELECTRIC MOTOR INSTALLATION CLASS XI TITL SMK N 5 MEDAN

Learning media is one component of learning that has an important role in teaching and learning activities. The use of media should be a part of the attention of the teacher as a facilitator in the learning process. Based on the results of observations at school and looking at the learning process, researchers found several problems related to infrastructure that support the process of teaching and learning activities. Based on this problem, the researcher tried to develop an Outseal PLC based electric motor control system trainer with the aim of simplifying the learning process and making it easier for students to understand the material taught by the teacher by carrying out the practical learning process.

This study aims to determine whether the Electric Motor Control System Trainer is suitable for use in learning Electric Motor Installation. This research was conducted on class XI students of the Electrical Power Installation Engineering Department at SMK N 5 Medan. The procedure for media development is carried out by the Research and Development method or better known as R&D and uses the Analysis, Design, Development, Implementation and Evaluation (ADDIE) development design model.

Based on the data obtained during the research, the results of the validation from the media and material experts, this learning media is declared to meet the requirements and is suitable for use as a learning medium as evidenced by the results of the feasibility assessment of the material experts obtaining a very feasible category with a mean percentage of 92%, the results of the feasibility assessment of the expert. The media obtained the very feasible category with an average percentage of 86%. Thus the development of instructional media is very well done by looking at the value of the validator experts and also the positive responses that support the learning media.

Keywords: Development, Trainer, SMK N 5 Medan