

ABSTRAK

Penelitian ini bertujuan untuk (1) merealisasikan desain dari *training kit* selektor warna barang dan (2) mengetahui tingkat kelayakan *training kit* selektor warna barang sebagai sarana pembelajaran pada mata pelajaran sistem pengendali elektronik kelas XII EI di SMK Negeri 2 Wonosari.

Metode penelitian yang digunakan adalah metode penelitian dan pengembangan (*Research and Development*). Pelaksanaan penelitian menggunakan acuan *ADDIE Models* yang terdiri dari lima tahapan yaitu: (1) Analisis (*Analysis*); (2) Disain (*Design*); (3) Pengembangan (*Development*); (4) Implementasi (*Implementation*); (5) Evaluasi (*Evaluation*). Teknik pengumpulan data menggunakan dua metode yaitu (1) observasi untuk mengamati unjuk kerja *training* dan (2) kuesioner untuk mengetahui tingkat kelayakan *training*. Pengujian melalui tiga tahapan yaitu (1) validasi produk oleh ahli; (2) pengujian oleh guru; (3) pengujian oleh siswa Teknik analisa data menggunakan deskriptif kuantitatif.

Hasil penelitian yang didapatkan adalah: (1) desain *training kit* selektor warna barang terdiri dari *training* dan *jobsheet*. Bagian-bagian *training* meliputi boks, konveyor, selektor dan rangkaian mikrokontroler. Sedangkan *jobsheet* terdiri dari tiga kegiatan belajar yang meliputi pengenalan PLC dan *training*, *sorting* dan kalibrasi, *timer* dan *counter*. (2) tingkat kelayakan *training kit* selektor barang dari validasi isi sebesar 89,39% (sangat layak), dari validasi konstruk sebesar 91,20% (sangat layak) dan dari uji coba siswa mendapatkan hasil sebesar 79,96% (layak). Berdasarkan presentase tersebut, sarana pembelajaran *training kit* selektor warna barang layak digunakan dalam proses pembelajaran.

Kata kunci : sarana pembelajaran, *training*, PLC, selektor warna

ABSTRACT

The purpose of the study is to (1) realize the design of the color selector training kit and (2) find out the feasibility level of the item color selector training kit as a learning tool in the engineering class of control system XII EI at Wonosari Vocational High School 2.

The research method used is the research and development method. The research implementation uses the reference ADDIE Models which consists of five stages, namely: (1) Analysis; (2) Design; (3) Development; (4) Implementation; (5) Evaluation. Data collection techniques used two methods which are (1) observation to observe the performance of training and (2) questionnaire to determine the feasibility level of training. Testing through three stages that are (1) product validation by experts; (2) testing by the teacher; (3) testing by students' data analysis techniques using quantitative descriptive.

The results of the research are: (1) the design of the color selector training kit consists of training and job sheet. Training parts include boxes, conveyors, selectors and microcontroller circuits while the job sheet consists of three learning activities which include the introduction of PLC and training, sorting and calibration, timers and counters. (2) The feasibility level of the item selector training kit from content validation is 89.39% (very feasible), from construct validation of 91.20% (very feasible) and from student trials the results are 79.96% (feasible). Based on the percentage, the color selector training kit learning facilities are suitable for use in the learning process

Keywords: learning facilities, training, PLC, color selector