# ABSTRAK

Nur Alam. 2013. *Analisis Materi Programmable Logic Control Pada Sistem Pengendali Motor Listrik Kompetensi Keahlian Teknik Instalasi Tenaga Listrik SMK Darussalam Makassar.* (Dibimbing Oleh: Abdul Muis Mappalotteng dan Hasanah Nur).

Penelitian ini bertujuan untuk: (1) mengetahui hasil analisis materi pembelajaran PLC dengan Sistem pengendali Motor Listrik dengan kurikulum yang berlaku di SMK Darussalam Makassar; (2) untuk mengetahu fasilitas praktikum PLC yang ada di SMK Darussalam dalam kondisi memadai sehingga memungkinkan pelaksanaan pembelajaran *Programmable Logic Control* dan Sistem Pengendali Motor Listrik; (3) mengetahui Relevansi Pembelajaran *Programmable Logic Control* dengan materi pembelajaran Sistem Pengendali Motor Listrik pada Kompetensi Keahlian Teknik Instalasi Tenaga Listrik SMK Darussalam Makassar; (4) mengetahui kualitas perangkat pembelajaran yang ada di SMK Darussalam. Metode yang digunakan dalam penelitian ini adalah deskriptif yang dilanjutkan dengan penelitian pengembangan perangkat pembelajaran. Subjek coba adalah siswa listrik SMK Darussalam Makassar program keahlian teknik ketenagalistrikan.

Hasil penelitian menunjukkan: (1) hasil analisis menunjukkan adanya kesesuaian antara materi pembelajaran yang ada di SMK Darussalam dengan kurikulkum yang berlaku dalam kategori cukup sesuai. (2) fasilitas praktikum PLC yang ada di SMK Darussalam dalam kondisi memadai sehingga memungkinkan pelaksanaan pembelajaran *Programmable Logic Control* dan Sistem Pengendali Motor Listrik; (3) pembelajaran *Programmable Logic Control* sudah relevan dengan materi pembelajaran Sistem Pengendali Motor Listrik pada Kompetensi Keahlian Teknik Instalasi Tenaga Listrik SMK Darussalam Makassar; dan (4) perangkat pembelajaran yang ada di SMK Darussalam dalam kategori baik.

Kata Kunci: Analisis Materi, PLC, Sistem pengendali Motor Listrik

# ABSTRACT

Nur Alam. 2013. Analysis of material Programmable Logic Control In Motor Control Sistems Electrical Skills Competency Power Installation Darussalam Vocational High School Makassar. (Supervised By: Abdul Muis Mappalotteng and Hasanah Nur).

This study aims to: (1) determine the results of analysis of learning materials with PLC control sistem Electric Motor with applicable curriculum in vocational Darussalam Makassar, (2) determines the PLC lab facilities that exist in SMK Darussalam under conditions sufficient to allow the implementation of learning Programmable Logic Control and Electric Motor Control Sistems, (3) knowing Relevance learning Programmable Logic Control with learning materials Sistem Electric Motor Control on Engineering Skills Competency Power Installation SMK Darussalam Makassar, (4) knowing the learning materials are developed based on the analysis of the relevance of programmable logic control with electric motor control sistem in both categories. The method used in this research is descriptive research, followed by the development of learning tools. Subjects were students try SMK Darussalam Makassar electrical engineering electrification program. The results showed: (1) The results of the analysis indicate compatibility between existing learning materials in vocational Darussalam with applicable curriculum quite appropriate category. (2) the existing PLC lab facilities in vocational Darussalam under conditions sufficient to allow the implementation of learning and Programmable Logic Control Sistems Electric Motor Control, (3) teaching Programmable Logic Control is relevant to learning materials Sistem Electric Motor Control on Engineering Skills Competency Power Installation SMK Darussalam Makassar, and (4) learning tools developed based on the analysis of the relevance of programmable logic control with electric motor control sistem in both categories

Keywords: Analysis of Material, PLC, control sistems Electric Motors