PENGEMBANGAN PERANGKAT PEMBELAJARAN PRAKTIK TEKNIK DASAR LISTRIK DAN ELEKTRONIKA KELAS X TEKNIK MEKATRONIKA DI SMK PL LEONARDO KLATEN

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ABSTRAK

Tujuan penelitian ini adalah: (1) mengembangan perangkat pembelajaran yang sesuai untuk Praktik Teknik Dasar Listrik dan Elektronika kelas X Teknik Mekatronika di SMK PL Leonardo Klaten; (2) mengetahui kelayakan perangkat pembelajaran Praktik Teknik Dasar Listrik dan Elektronika menurut ahli materi dan ahli media; (3) mengetahui respon siswa terhadap perangkat pembelajaran yang dikembangkan.

Penelitian ini merupakan penelitian *Research and Development* dengan mengadopsi Model 4D menurut Thiagarajan yang meliputi: (1) *define* (pendefinisian); (2) *design* (perancangan); (3) *develop* (pengembangan); (4) *disseminate* (penyebarluasan). Data dikumpulkan menggunakan angket dan dianalisis secara deskriptif kuantitatif. Validitas instrumen dilakukan dengan *expert judgement*, sedangkan relibailitas instrumen menggunakan rumus *Alpha Cronbach.*

Hasil penelitian ini menunjukkan bahwa: (1) diperoleh hasil pengembangan perangkat yang sesuai untuk praktik TDLE kelas X Teknik Mekatronika di SMK PL Leonardo Klaten; (2) hasil penilaian tingkat kelayakan perangkat pembelajaran menurut ahli materi, modul memperoleh rata-rata 74,5 dengan persentase 75% sehingga masuk dalam kategori "Sangat Layak" sedangkan LKS memperoleh rata-rata 74 dengan persentase 74% sehingga masuk dalam kategori "Sangat Layak" dan menurut ahli media, modul memperoleh rata-rata 86 dengan persentase 93% sehingga masuk dalam kategori "Sangat Layak", sedangkan LKS memperoleh rata-rata 79 dengan persentase 90% sehingga masuk dalam kategori "Sangat Layak"; (3) respon siswa memperoleh rata-rata 66,1 dengan persentase 83% kategori "Sangat Baik" untuk modul, dan LKS memperoleh rata-rata sebesar 65,27 dengan persentase 82% kategori "Sangat Baik".

Kata kunci: Pengembangan perangkat pembelajaran, Model 4D, Praktik TDLE

DEVELOPMENT OF LEARNING MEDIA
BASIC ELECTRICAL AND ELECTRONIC ENGINEERING PRACTICES
CLASS X MECHATRONIC ENGINEERING AT
PL LEONARDO KLATEN VOCATIONAL HIGH SCHOOL

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ABSTRACT

The purposes of this research are: (1) to develop learning media that are suitable for the practice of Basic Electrical and Electronic Engineering of Class X Mechatronic Engineering at PL Leonardo Klaten Vocational High School; (2) knowing the appropriateness of learning media for Basic Electrical and Electronic Engineering Practices according to material and media experts; (3) knowing students' responses towards the developed learning media.

This research is a Research and Development study by adopting a 4D Model according to Thiagarajan which includes: (1) define; (2) design; (3) develop; (4) disseminate. Data were collected through questionnaire and analyzed with descriptive quantitative. The validity of the instrument is done by expert judgment, while the instrument's reliability uses the Cronbach Alpha formula.

The results of this research showed: (1) the result of the development of media suitable for the practice of TDLE of class X Mechatronic Engineering in PL Leonardo Klaten Vocational High School is acquired; (2) the result of the feasibility assessment of the learning media according to the material experts showed the module obtained an average of 74.5 with the percentage of 75% so that it is included in the "Very Feasible" category while the job sheet obtained an average of 74 with the percentage of 74% so that it is included in the "Very Feasible" category and according to media experts, module received an average of 86 with the percentage of 93% so that it is included in the "Very Feasible" category, while the job sheet gained an average of 79 with the percentage of 90% so that it is included in the" Very Feasible" category; (3) student responses obtained an average of 66.1 with the percentage of 83% in the "Very Good" category for the module, and job sheet gained an average of 65.27 with the percentage of 82% in the "Very Good" category.

Keywords: Development of learning media, 4D Model, TDLE Practice.