

## **ABSTRACT**

**Peprizal, 2020. *The Development of Web-Based Learning Media on Electric Lighting Installation Subjects.***

*The learning media applied to the subject of electric lighting installation at SMK Negeri 1 Koto Balingka is conventional learning media using the lecture method, and the media used is still simple and has not varied. This research aims to develop an Web-based learning media on electric lighting installation subject at SMK Negeri 1 Koto Balingka and can be used in learning.*

*The method used is Research and Development with the ADDIE development model. The ADDIE model includes 5 stages: (1) analysis: need analysis, (2) design: product design, (3) develop: product development, (4) implementation: product implementation, (5) evaluation: product evaluation. The subjects of the research were students of class XI Electrical Engineering Department in the subject of electric lighting installation at SMK Negeri 1 Koto Balingka. The instrument analysis technique used was the item validity analysis technique, difficulties index, difference effort question, functioning distractor, reliability. Product analysis technique which used was validity analysis, practicality, and effectiveness of Web-based learning media.*

*The results showed the feasibility of Web-based learning media from the test results of media experts with a percentage 92,50% categorized valid. The result of the material expert test was obtained a percentage 94,79% categorized valid. The results of the teacher practicality questionnaire obtained a percentage 89,78% categorized very practical. The results of the practicality questionnaire of students obtained a percentage 89,94% categorized very practical. Classical completeness of the experiment class 86,67%. Classical completeness of the control class 42,86%. The gain score for the experimental class was obtained 0,55 with the medium category. The gain score for the control class is obtained 0,22 with the low category. From the results of this study, it can be concluded that Web-based learning media are declared valid, practical and effective for use by teachers and students as a learning medium in the subject of electric lighting installation.*

**Keywords:** *Media, Web, Research and Development, E-learning, ADDIE.*

## ABSTRAK

**Peprizal, 2020. Pengembangan Media Pembelajaran Berbasis *Web* Pada Mata Pelajaran Instalasi Penerangan Listrik. Tesis Pascasarjana Fakultas Teknik Universitas Negeri Padang.**

Media pembelajaran yang diterapkan pada mata pelajaran instalasi penerangan listrik di SMK Negeri 1 Koto Balingka yaitu media belajar konvensional dengan menggunakan metode ceramah, serta media yang digunakan masih sederhana dan belum bervariasi. Penelitian ini bertujuan untuk mengembangkan media pembelajaran berbasis *Web* pada mata pelajaran instalasi penerangan listrik di SMK Negeri 1 Koto Balingka dan layak digunakan dalam pembelajaran.

Metode penelitian yang digunakan adalah Penelitian dan Pengembangan (*Research and Development*) dengan model pengembangan ADDIE. Model ADDIE meliputi 5 tahap: (1) *analysis*: analisis kebutuhan, (2) *design*: pembuatan rancangan produk, (3) *develop*: pengembangan produk, (4) *implementation*: implementasi produk, (5) *evaluation*: evaluasi produk. Subjek penelitian merupakan peserta didik kelas XI Jurusan Teknik Elektro pada mata pelajaran instalasi penerangan listrik di SMK Negeri 1 Koto Balingka. Teknik analisis instrument yang digunakan adalah teknik analisis validitas butir soal, indeks kesukaran soal, daya beda soal, keberfungsian distraktor, reliabilitas. Teknik analisis produk yang digunakan adalah analisis validitas, praktikalitas, dan efektivitas media pembelajaran berbasis *Web*.

Hasil penelitian menunjukkan kelayakan media pembelajaran berbasis *Web* dari hasil uji ahli media dengan persentase 92,50% dikategorikan valid. Hasil uji ahli materi diperoleh persentase 94,79% dikategorikan valid. Hasil uji angket praktikalitas guru diperoleh persentase 89,78% dikategorikan sangat praktis. Hasil uji angket praktikalitas siswa diperoleh persentase 89,94% dikategorikan sangat praktis. Ketuntasan klasikal kelas eksperimen 86,67%. Ketuntasan klasikal kelas kontrol 42,86%. Hasil *gain score* kelas eksperimen diperoleh 0,55 dengan kategori sedang. Hasil *gain score* kelas kontrol diperoleh 0,22 dengan kategori rendah. Dari hasil penelitian ini maka dapat disimpulkan bahwa media pembelajaran berbasis *Web* dinyatakan valid, praktis dan efektif untuk digunakan oleh guru dan siswa sebagai media belajar pada mata pelajaran instalasi penerangan listrik.

**Kata Kunci:** *Media, Web, Research and Development, E-learning, ADDIE.*