

PENGEMBANGAN MEDIA PEMBELAJARAN POWER TOOLS BERBASIS WEB PADA MATA PELAJARAN DASAR-DASAR TEKNIK OTOMOTIF (DDTO) UNTUK SISWA SMK

Oleh

I Gusti Ngurah Made Budiana, NIM 2115071006

Jurusan Teknologi Industri

ABSTRAK

Penelitian ini bertujuan untuk (1) mengembangkan media pembelajaran Power Tools berbasis web pada mata pelajaran Dasar-Dasar Teknik Otomotif (DDTO) untuk siswa SMK serta (2) mengetahui tingkat kelayakan dan kepraktisan media tersebut. Penelitian ini merupakan penelitian dan pengembangan (*Research and Development*) yang menggunakan model pengembangan 4D (*Define, Design, Develop, dan Disseminate*). Subjek penelitian terdiri atas dua ahli materi, dua ahli media, 15 siswa pada uji kelompok kecil, dan 30 siswa pada uji kelompok besar di SMK Negeri 3 Singaraja. Data dikumpulkan melalui angket validasi ahli materi, angket validasi ahli media, dan angket respons siswa, kemudian dianalisis menggunakan teknik statistik deskriptif persentase. Hasil penelitian menunjukkan bahwa (1) media pembelajaran berbasis web yang dikembangkan memperoleh tingkat kelayakan sebesar 98,88% berdasarkan penilaian ahli materi dan 90,62% berdasarkan penilaian ahli media, yang keduanya termasuk dalam kategori sangat layak. Sementara itu, (2) hasil uji kepraktisan menunjukkan persentase sebesar 85,88% pada uji kelompok kecil dan 89,66% pada uji kelompok besar, yang keduanya berada pada kategori sangat praktis. Berdasarkan hasil tersebut, media pembelajaran Power Tools berbasis web dinyatakan sangat layak dan sangat praktis sehingga dapat dimanfaatkan sebagai media pembelajaran pada mata pelajaran Dasar-Dasar Teknik Otomotif (DDTO) di SMK.

Kata kunci: media pembelajaran berbasis web; Power Tools; Dasar-Dasar Teknik Otomotif; model 4D; kelayakan; kepraktisan.

***DEVELOPMENT OF WEB-BASED POWER TOOLS LEARNING MEDIA FOR
THE BASIC AUTOMOTIVE ENGINEERING (DDTO) SUBJECT FOR
VOCATIONAL HIGH SCHOOL STUDENTS***

By:

I Gusti Ngurah Made Budiana, NIM 2115071006

Department of Industrial Technology

ABSTRACT

This study aimed to (1) develop a web-based Power Tools learning media for the Basic Automotive Engineering (DDTO) subject for vocational high school (SMK) students and (2) determine the feasibility and practicality of the developed learning media. This study employed a Research and Development (R&D) method using the 4D development model, which consists of the Define, Design, Develop, and Disseminate stages. The research participants consisted of two material experts, two media experts, 15 students in the small-group trial, and 30 students in the large-group trial at SMK Negeri 3 Singaraja. Data were collected through material expert validation questionnaires, media expert validation questionnaires, and student response questionnaires. The data were analyzed using descriptive percentage statistics. The results showed that (1) the developed web-based learning media achieved a feasibility score of 98.88% based on the material experts' evaluation and 90.62% based on the media experts' evaluation, both of which were classified as highly feasible. Furthermore, (2) the practicality test yielded scores of 85.88% in the small-group trial and 89.66% in the large-group trial, both of which were classified as highly practical. Based on these findings, the developed web-based Power Tools learning media was concluded to be highly feasible and highly practical, making it suitable for use as a learning medium in the Basic Automotive Engineering (DDTO) subject at vocational high schools.

Keywords: web-based learning media; Power Tools; Basic Automotive Engineering; 4D model; feasibility; practicality.