

## ABSTRAK

**Eva Saputry Pulungan. NIM 5201111009. Pengembangan *E-Modul* Berbasis *Flip PDF* Mata Pelajaran DPIB Siswa Kelas XI SMK Negeri 1 Lubuk Pakam.**

Penelitian ini bertujuan untuk: (1) mengembangkan *E-Modul* berbasis *Flip PDF Professional* untuk mengajarkan perhitungan volume pekerjaan konstruksi, (2) menilai kelayakan *E-Modul* berbasis *Flip PDF Professional* untuk materi ini, serta (3) mengevaluasi respon siswa sesudah penggunaan *E-Modul* berbasis *Flip PDF Professional*. Subjek penelitian terdiri dari 30 siswa kelas XI SMK Negeri 1 Lubuk Pakam. Penelitian ini menerapkan metode pendekatan Research and Development (R&D), dengan fokus pada tahap-tahap tertentu, yaitu (1) tahap pendefinisian (*define*), (2) tahap perancangan (*design*), dan (3) tahap pengembangan (*develop*). Studi ini menggunakan berbagai instrumen, termasuk observasi, wawancara, kuesioner, dan dokumentasi. Kuesioner disebarluaskan kepada validator media dan materi, serta kepada 30 peserta didik kelas XI di SMK Negeri 1 Lubuk Pakam. Hasil validasi dari ahli materi menunjukkan skor keseluruhan 4,26 dengan persentase 85,26% yang dikategorikan "Sangat Layak". Validasi ahli media menghasilkan skor keseluruhan 3,68, dengan persentase 73,63%, dikategorikan "Layak". Sementara itu, respon siswa menghasilkan skor keseluruhan 4,63, dengan persentase 92,6%, termasuk dalam kategori "Sangat Layak".

**Kata kunci:** *E-Modul*, *Flip PDF Professional*, dan Mata Pelajaran DPIB.

## **ABSTRACT**

**Eva Saputry Pulungan. NIM 5201111009. Development of E-Modules Based on Flip PDF DPIB Subject for Class XI Students of SMK Negeri 1 Lubuk Pakam.**

*This research aims to: (1) developing a Flip PDF Professional -based E-Module to teach construction work volume calculation, (2) assessing the feasibility of Professional Flip PDF-based E-Modules for this material, and (3) evaluating student responses after using Professional Flip PDF-based E-Modules. The research subjects consisted of 30 students of class XI of SMK Negeri 1 Lubuk Pakam. This research applies a Research and Development (R&D) approach method, focusing on certain stages, namely (1) the definition stage, (2) the design stage, and (3) the development stage. The study used various instruments, including observation, interviews, questionnaires, and documentation. Questionnaires were distributed to media and material validators, as well as to 30 grade XI students at SMK Negeri 1 Lubuk Pakam. The validation results from material experts showed an overall score of 4.26 with a percentage of 85.26% which was categorized as "Very Feasible". Media expert validation resulted in an overall score of 3.68, with a percentage of 73.63%, categorized as "Feasible". Meanwhile, student responses resulted in an overall score of 4.63, with a percentage of 92.6%, categorized as "Very Feasible".*

**Keywords:** *E-Modules, Professional Flip PDF Professional, and DPIB Subjects*

