

ABSTRAK

Ahmad Ramadana. NIM. 4183321017. Pengembangan *E-book* Pembelajaran Fisika Berbasis *Problem Based Learning* (PBL) Pada Materi Pokok Usaha & Energi Kelas X Semester Genap di SMA N 3 Binjai T. A. 2021/2022. Skripsi. Jurusan Pendidikan Fisika. Fakultas Matematika dan Ilmu Alam. Universitas Negeri Medan. 2022.

Tujuan penelitian ini untuk mengembangkan media pembelajaran *e-book* fisika berbasis *problem based learning* (PBL) menggunakan flip pdf profesional pada materi Usaha & Energi dan untuk menguji kelayakan media *e-book* yang dikembangkan melalui validasi para Ahli serta mengetahui kemenarikan respon guru dan peserta didik. Langkah-langkah penelitian dan pengembangan berpedoman pada model siklus 4-D Thiagaraja (*Define, Design, Develop, Disseminate*). Tahap *develop* melibatkan dua validator untuk menilai kelayakan materi dan media. Tahap *Disseminate* melibatkan 31 peserta didik (di SMA N 3, Binjai). Instrumen pengumpulan data yang digunakan adalah angket dengan analisis data deskriptif Kualitatif. Hasil penelitian ini menunjukkan bahwa; (1) Variabel uji kelayakan *e-book* sebagai media pembelajaran oleh ahli media, skor rata-rata keseluruhan sebesar 100% dan oleh ahli materi, skor rata-rata keseluruhan sebesar 98% yang tergolong pada kategori tinggi, artinya *e-book* yang dikembangkan dengan flip pdf profesional sudah sangat layak untuk digunakan. (2) Variabel keefektifan memiliki skor rata-rata keseluruhan sebesar 90,93% yang tergolong pada kategori sangat efektif, artinya *e-book* tersebut cukup efektif untuk membantu siswa dalam meningkatkan nilai pembelajaran fisika materi Usaha & Energi. (3) Hasil respon guru fisika di SMA N 3 BINJAI terhadap *e-book* dengan skor rata-rata keseluruhan 88,2% dengan kriteria Layak dan Uji coba produk kepada peserta didik untuk memberi respon terhadap *e-book* dengan skor rata-rata keseluruhan 86% dengan kriteria Layak, dapat disimpulkan bahwa *e-book* tersebut mendapatkan respon yang bagus dari guru dan peserta didik.

Kata Kunci : Digital Book, flip pdf profesional, Usaha & Energi

ABSTRACT

Ahmad Ramadana. NIM. 4183321017. Development of Problem Based Learning (PBL) Physics-Based E-book on work & Energy Main Materials for Class X Even Semester at SMA N 3 Binjai T. A. 2021/2022. Essay. Department of Physics Education. Faculty of Mathematics and Natural Sciences. Medan State University. 2022.

The purpose of this study was to develop an e-book physics learning media based on problem based learning (PBL) using a professional flip pdf on the Business & Energy material and to test the feasibility of the e-book media developed through expert validation and to find out the attractiveness of teacher and student responses. The research and development steps are guided by the 4-D Thiagaraja cycle model (Define, Design, Develop, Disseminate). The develop stage involves two validators to assess the feasibility of the material and media. The Disseminate stage involved 31 students (at SMA N 3, Binjai). The data collection instrument used was a questionnaire with qualitative descriptive data analysis. The results of this study indicate that; (1) The variable of the feasibility test of e-books as learning media by media experts, the overall average score is 100% and by material experts, the overall average score is 98% which belongs to the high category, meaning that e-books developed with professional flip pdf is very feasible to use. (2) The effectiveness variable has an overall average score of 90.93% which is classified in the very effective category, meaning that the e-book is quite effective in helping students increase the value of learning physics in the work & Energy material. (3) The results of the physics teacher response at SMA N 3 BINJAI to the e-book with an overall average score of 88.2% with the Eligibility criteria and product trials for students to respond to the e-book with an overall average score of 86 % with Eligible criteria, it can be concluded that the e-book received a good response from teachers and students.

Keywords : Digital Book, flip pdf profesional, work & Energy