

## ABSTRAK

**Desnatalia Siahaan, NIM 4213121079 (2021), Pengembangan *E-modul* Berbasis Permainan Edukasi Berbantuan Aplikasi *Baamboozle* pada Materi Pengukuran di Kelas X SMA Swasta Gajah Mada Medan.**

Telah dilakukan penelitian pengembangan *e-modul* berbasis permainan edukasi berbantuan aplikasi *baamboozle* pada materi pengukuran di kelas X SMA Swasta Gajah Mada Medan dengan tujuan untuk mengetahui validitas, praktikalitas, dan efektivitas dari *e-modul*. Metode pengembangan yang digunakan adalah ADDIE yang terdiri dari lima tahap yaitu *analysis*, *design*, *development*, *implementation*, dan *evaluation*. Instrumen penelitian terdiri dari angket validasi oleh ahli materi dan ahli media, angket respon pendidik dan peserta didik, serta instrumen tes berupa soal. Hasil penelitian diperoleh persentase rata-rata validasi ahli materi sebesar 98% dan ahli media sebesar 95,3% dengan kategori sangat valid. Kepraktisan dilihat dari hasil respon pendidik yang memperoleh persentase rata-rata 93,6%, peserta didik kelompok kecil memperoleh 88,6%, dan peserta didik kelompok besar memperoleh 85,8% dengan kriteria sangat praktis. Efektivitas *e-modul* berdasarkan tes hasil belajar berupa *pretest* dan *posttest* dengan perolehan skor N-Gain sebesar 0,72 pada kategori sangat efektif. Berdasarkan hasil penelitian, dinyatakan bahwa *e-modul* fisika yang dikembangkan layak digunakan sebagai bahan ajar.

**Kata Kunci:** *E-modul*, Permainan Edukasi, *Baamboozle*, Pengukuran.

## ABSTRACT

**Desnatalia Siahaan, NIM 4213121079 (2021). Development of Educational Game-Based *E-module* Assisted by the *Baamboozle* Application on Measurement Material in Grade X of SMA Swasta Gajah Mada Medan.**

A research on the development of an educational game-based e-module using the baamboozle application on measurement material has been conducted in class X of SMA Swasta Gajah Mada Medan, with the aim of determining the validity, practicality, and effectiveness of the e-module. The development method used is ADDIE, which consists of five stages: analysis, design, development, implementation, and evaluation. The research instrument consisted of a validation questionnaire by material experts and media experts, a questionnaire of educators' and students' responses, and a test instrument in the form of questions. The results of the study obtained an average percentage of validation from material experts of 98% and media experts of 95.3% with a very valid category. Practicality is seen from the results of educators' responses, which obtained an average percentage of 93.6%, small group students obtained 88.6%, and large group students obtained 85.8% with a very practical criterion. The effectiveness of the e-module is based on learning outcome tests in the form of pretests and posttests with an N-Gain score of 0.72 in the very effective category. Based on the results of the study, it is stated that the developed physics e-module is suitable for use as a teaching material.

**Keywords:** E-module, Educational Games, Bamboozle, Measurement.