ABSTRAK

Yuniar Lestari Rangkuti, NIM 4193321030 (2023). Pengembangan *E-Modul* Berbasis *Problem Based Learning* Pada Materi Fluida Statis Di SMA Swasta Imelda Medan

Penelitian ini bertujuan untuk mengembangkan *e-modul* berbasis *Problem Based Learning* pada materi Fluida Statis dan menganalisis *e-modul* dengan uji validitas, efektivitas dan respon. Jenis penelitian ini yang digunakan yaitu Research and Development (R&D) Borg and Gall berdasarkan modifikasi yang dikembangkan oleh Sugiyono. Adapun tahapan-tahapan dalam penelitian ini dilakukan dari tahap 1 hingga tahap 7 yaitu potensi dan masalah, pengumpulan data, desain produk, validasi produk, revisi desain produk, uji coba produk, produk akhir. Teknik Pengumpulan data berupa angket validitas, respon siswa dan serta tes hasil belajar berupa *pre-test* dan *post-tes.* Subjek penelitian ini meliputi dua dosen fisika sebagai validator, serta guru fisika sebagai validator dan peserta didik kelas XI SMA Swasta Imelda Medan. Hasil penelitian berupa tingkat validitas diperoleh persentase rata-rata 94% dengan kategori sangat valid, uji coba efektifitas kelompok kecil 76% dan 64% pada uji coba kelompok besar. Sedangkan, tingkat respon siswa terhadap *E-Modul* diperoleh rata-rata 86% dengan kriteria sangat baik. *E-modul* berbasis *Problem Based Learning* pada materi fluida statis dinyatakan valid, cukup efektif dan sangat baik.

Kata kunci : *E-Modul, Problem Based Learning*, Fluida Statis

ABSTRACT

Yuniar Lestari Rangkuti, NIM 4193321030 (2023). E-Module Development Based on Problem Based Learning on Static Fluid Material at Imelda Private High School Medan

This research aims to develop a Problem-Based Learning-based e-module on Static Fluids and analyze the e-module through validity, effectiveness, and response tests. The research methodology employed is the Research and Development (R&D) model by Borg and Gall, based on modifications developed by Sugiyono. The stages of this research encompass steps 1 through 7, including identification of potential and problems, data collection, product design, product validation, product design revision, product testing, and the final product. Data collection techniques involve validity questionnaires, student responses, and learning outcome tests comprising pre-tests and post-tests. The research subjects include two physics lecturers as validators, physics teachers as validators, and 11th-grade students from Imelda Private High School in Medan. The research results show a validity level with an average percentage of 94%, categorized as highly valid, small-group effectiveness testing at 76%, and 64% in large-group testing. Meanwhile, students' response to the e-module averages 86%, with an assessment of very good. The Problem-Based Learning-based e-module on static fluids is declared valid, reasonably effective, and highly satis factory.

Keywords: E-Module, Problem Based Learning, Static Fluid