ABSTRAK

Yosua, NIM 4172121035 (2017). Pengembangan *E-Modul* Pembelajaran Fisika Berbasis *Problem Based Learning (PBL)* pada Materi Hukum Newton Gerak Kelas X di SMA Negeri 1 Besitang

Penelitian ini merupakan penelitian yang bertujuan untuk (1) Menghasilkan sebuah modul fisika pada materi Hukum Newton Gerak yang telah memenuhi kriteria valid, praktis dan efektif untuk dapat diimplementasikan di dalam proses pembelajaran fisika, (2) Mengetahui tingkat validitas *e-modul* pembelajaran fisika berbasis *Problem Based Learning* pada Materi Hukum Newton Gerak kelas X di SMA Negeri 1 Besitang yang telah dikembangkan, (3) Mengetahui tingkat kepraktisan *e-modul* pembelajaran fisika berbasis *Problem Based Learning* pada Materi Hukum Newton Gerak kelas X di SMA Negeri 1 Besitang yang telah dikembangkan, (4) Mengetahui tingkat keefektifan *e-modul* pembelajaran fisika berbasis *Problem Based Learning* pada Materi Hukum Newton Gerak kelas X di SMA Negeri 1 Besitang yang telah dikembangkan. Subjek dalam penelitian ini adalah siswa kelas X MIA 1 SMA Negeri 1 Besitang yang berjumlah 36 orang siswa. Jenis penelitian ini merupakan penelitian pengembangan atau *Research and Development* (R&D) menggunakan model 4D (*Define-Design-Development*). Instrumen yang digunakan dalam penelitian ini terdiri dari angket validasi ahli materi, ahli media dan ahli pembelajaran, angket respon peserta didik terhadap modul pembelajaran fisika berbasis *Problem Based Learning* pada Materi Hukum Newton Gerak kelas X SMA dan instrumen test. Teknik analisis data yang digunakan dalam penelitian ini adalah deskriptif. Hasil penelitian ini adalah sebagai berikut (1) telah dihasilkan modul fisika pada materi hukum newton gerak berbasis *Problem Based Learning* yang diujikan kepada 3 orang ahli dengan hasil sangat valid (2) Tingkat kepraktisan modul fisika pada materi hukum newton gerak berbasis *Problem Based Learning* yang telah dikembangkan adalah sangat praktis. (3) tingkat keefektifan modul fisika pada materi hukum newton gerak berbasis *Problem Based Learning* yang telah dikembangkan yaitu kategori sedang.

Kata-kata kunci: *pengembangan, e-modul, problem based learning, hukum newton gerak*

ABSTRACT

Yosua, NIM 4172121035 (2017). Development of *Problem Based Learning (PBL)* Physics Learning *E-module* on Newton's Law of Motion Material for Class X in SMA Negeri 1 Besitang

This study is a research that aims to (1) Produce the physics learning module on Newton's Law of Motion subjects that has been fulfilled validity criteria, practicality criteria and effectiveness criteria for implementation in learning physics, (2) Determine the level of validity the physics learning *e-module* based on *Problem Based Learning* on Newton's Law of Motion subjects for class X in SMA Negeri 1 Besitang that has been developed, (3) To find out the level of practicality the physics learning *e-module* based on *Problem Based Learning* on Newton's Law of Motion subjects for class X in SMA Negeri 1 Besitang that has been developed, (4) To find out the level of effectiveness the physics learning *e-module* based on *Problem Based Learning* on Newton's Law of Motion subjects for class X in SMA Negeri 1 Besitang that has been developed. The subjects in this study were 36 students of class X MIA 1 at SMA Negeri 1 Besitang. This type of research is a research development or Research and Development (R&D) using the 4D model (*Define-Design-Develop*). The instruments used in this study consisted of a validation questiobbaire for material expert, media expert and learning expert, a students response to the physics learning *e-module* based on *Problem Based Learning* on Newton's Law of Motion subjects for class X SMA Negeri 1 Besitang and a test instrument. The data analysis technique used in this study is descriptive. The results of this study are as follows (1) a physics e-module has been produced on a Newton's Law of Motion material based on *Problem Based Learning* which is valid to be used as an addition to teaching materials, in terms of validation of material experts. (2) The level of practicality of the physics e-module on the Newton's Law of Motion material based on *Problem Based Learning* that has been developed is very practical. (3) The level of effectiveness of the physics module on the Newton's Law of Motion material based on *Problem Based Learning* that has been developed is the medium category.

Key words : *Development, e-module, problem based learning,* Newton's Law of Motion