ABSTRAK

Susi Santy Samosir, NIM 4173321054 (2017). Pengembangan *E-Modul* Berbasis *Problem Based Learning (PBL)* Berbantuan *Kvisoft Flipbook Maker* Pada Materi Momentum dan Impuls Kelas X Semester II SMA Swasta GKPI Medan T.P 2020/2021.

Penelitian ini merupakan penelitian yang bertujuan untuk (1) Untuk mengetahui tingkat validitas pengembangan *e-modul* fisika berbasis *Problem Based Learning* yang dikembangkan pada materi Momentum dan Impuls, (2) Untuk mengetahui tanggapan siswa terhadap *e-modul* fisika berbasis *Problem Based Learning* pada materi Momentum dan Impuls, (3) Untuk mengetahui tingkat keefektifan tanggapan siswa terhadap *e-modul* fisika berbasis *Problem Based Learning* pada materi Momentum dan Impuls di SMA yang telah dikembangkan. Subjek dalam penelitian ini adalah siswa kelas X MIA SMA Swasta GKPI Medan yang berjumlah 30 orang siswa. Jenis penelitian ini merupakan penelitian pengembangan atau *Research and Development* (R&D) menggunakan *ADDIE*. Instrumen yang digunakan dalam penelitian ini terdiri dari angket validasi ahli materi ahli media, ahli pembelajaran dan guru, angket respon peserta didik terhadap bahan ajar fisika berbasis Problem Based Learning, dan instrumen test. Teknik analisis data yang digunakan dalam penelitian ini adalah deskriptif. Hasil penelitian ini adalah sebagai berikut (1) telah dihasilkan bahan ajar berupa *e-modul* berbasis *Problem Based Learning* yang valid digunakan sebagai media pembelajaran, ditinjau dari validasi ahli materi dengan persentase 88.4%, ahli media 82%, ahli pembelajaran 87.6% dan guru 90.3%. (2) respon siswa terhadap *e-modul* berbasis *Problem Based Learning* berbantuan *Kvisoft Flipbook Maker* pada materi Momentum dan Impuls di SMA yang telah dikembangkan adalah sangat baik. Respon peserta didik pada uji coba kelompok kecil dengan melibatkan 10 responden memperoleh presentasi 81% termasuk dalam kriteria sangat baik. Sedangkan pada uji coba kelompok besar dengan melibatkan 30 responden memperoleh presentasi sebesar 84% dengan kriteria sangat baik. (3) tingkat keefektifan *e-modul* berbasis *Problem Based Learning* berbantuan *Kvisoft Flipbook Maker* pada materi Momentum dan Impuls di SMA yang telah dikembangkan yaitu kategori tinggi . Hal ini berdasarkan hasil rata-rata n-gain score sebesar 0,73.

Kata kunci: Pengembangan, *e-modul*, *problem based learning*

ABSTRACT

Susi Santy Samosir, NIM 4173321054 (2017). Development of *E-Modul* based on Problem Based Learning (PBL) Assited by the Kvisoft Flipbook Maker on the Momentum and Impuls Materil for Class X Semester II SMA Swasta GKPI Medan T.P 2020/2021

This research is a research that aims to (1) o determine the level of validity of the development of e-physics module based on Problem Based Learning which was developed on Momentum and Impulse material, (2) To find out students' responses to the physics e-module based on Problem Based Learning on Momentum and Impulse material, (3) To determine the level of effectiveness of student responses to the physics e-module based on Problem Based Learning on the Momentum and Impulse material in high school that has been developed. The subjects in this study were students of class X MIA Private High School GKPI Medan, totaling 30 students. This type of research is research and development (R&D) using ADDIE. The instruments used in this study consisted of a validation questionnaire of media experts, learning experts and teachers, student response questionnaires to Problem Based Learning-based physics teaching materials, and test instruments. The data analysis technique used in this research is descriptive. The results of this study are as follows (1) have produced teaching materials in the form of e-modules based on Problem Based Learning that are valid to be used as learning media, in terms of validation of material experts with a percentage of 88.4%, media experts 82%, learning experts 87.6% and teachers 90.3%; (2) Student responses to Problem Based Learning-based e-modules assisted by Kvisoft Flipbook Maker on Momentum and Impulse materials in high school that have been developed are very good. The response of students in a small group trial involving 10 respondents obtained a presentation of 81% which was included in the very good criteria. Meanwhile, in the large group trial involving 30 respondents, the presentation was 84% with very good criteria; (3) The level of effectiveness of the Problem Based Learning-based e-module assisted by Kvisoft Flipbook Maker on the Momentum and Impulse material in high school that has been developed is the high category. This is based on the results of the average N-gain score of 0.73.

Keywords: Development, e-module, problem based learning