ABSTRAK

Putri Amalia, NIM 4201121021 (2020). Pengembangan Modul Berbasis Pendekatan *Technology Pedagogical and Content Knowledge* (TPACK) pada Materi Gelombang Bunyi di Kelas XI MIPA 1 MAN 1 MEDAN.

Penelitian dan pengembangan modul fisika berbasis *Technology Pedagogical and Content Knowledge* (TPACK) pada materi gelombang bunyi bertujuan untuk menganalisis kelayakan, kepraktisan, dan keefektifan modul. Pendekatan TPACK merupakan kerangka konseptual yang menggabungkan pengetahuan tentang teknologi, pedagogik, serta konten dan materi yang saling berhubungan. Jenis penelitian yang digunakan adalah Penelitian dan Pengembangan (*R&D*) model ADDIE dengan 5 tahapan *Analysis* permasalahan di sekolah, *Design* berupa perancangan produk awal, *Development* berupa tahap uji kelayakan dan kepraktisan disertai perbaikan, *Implementation* berupa uji coba produk oleh pengguna, dan *Evaluation* berupa analisis data. Hasil penelitian diperoleh modul yang dikembangkan memenuhi kriteria sangat layak dinyatakan dengan persentase hasil rata-rata penilaian ahli materi dan ahli media sebesar 84,63% berdasarkan kelayakan isi dan desain, memenuhi kriteria sangat praktis dinyatakan dengan perentase hasil rata-rata penilaian guru dan respon siswa sebagai pengguna sebesar 88,85% berdasarkan kemudahan penggunaan, ketertarikan, dan bahasa, dan perolehan persentase *N-Gain pretest* dan *posttest* sebesar 72% dalam kategori efektif. Kesimpulan yang diperoleh yaitu pengembangan modul fisika berbasis *Technology Pedagogical and Content Knowledge* (TPACK) pada materi gelombang bunyi layak, praktis, dan efektif digunakan dalam proses pembelajaran dan menjadi solusi permasalahan ketertarikan peserta didik terhadap pembelajaran fisika dan peningkatakan hasil belajar.

Kata kunci: ketertarikan; hasil belajar; TPACK

ABSTRACT

Putri Amalia, NIM 4201121021 (2020). Developing a Module Based on The Technology Pedagogical and Content Knowledge (TPACK) Approach on Sound Wave Material in Class XI MIPA 1 MAN 1 MEDAN

Research and development of a physics module based on Technology Pedagogical and Content Knowledge (TPACK) on sound wave material aims to analyze the feasibility, practicality and effectiveness of the module. The TPACK approach is a conceptual framework that combines knowledge about technology, pedagogy, and interconnected content and materials. The type of research used is Research and Development (R&D) ADDIE model with 5 stages of Analysis of problems in schools, Design in the form of initial product design, Development in the form of feasibility and practicality testing stages accompanied by improvements, Implementation in the form of product trials by users, and Evaluation in the form of data analysis. The research results showed that the module developed met the criteria of being very feasible, expressed by the percentage of the average results of material expert and media expert assessments of 84.63% based on the suitability of the content and design, fulfilling the criteria of being very practical, expressed by the percentage of the average results of teacher assessments and student responses. as a user was 88.85% based on ease of use, interest and language, and the pretest and posttest N-Gain percentage was 72% in the effective category. The conclusion obtained is that the development of a physics module based on Technology Pedagogical and Content Knowledge (TPACK) on sound wave material is feasible, practical and effective for use in the learning process and is a solution to the problem of students' interest in learning physics and improving learning outcomes.

***Keywords**: interest; learning outcomes; TPACK*