

ABSTRAK

Joice Asima Putri Banjarnahor, NIM 4213321017. Pengembangan Elektronik Lembar Kerja Peserta Didik (E-LKPD) Berbasis Inkuiri Berbantuan *Liveworksheet* pada Materi Fluida Dinamis Kelas XI Sma Free Methodist Medan

Penelitian ini didasari oleh rendahnya hasil belajar siswa terhadap fisika berdasarkan hasil observasi data di lapangan, masih banyak siswa yang mendapatkan nilai fisika dibawah KKTP. Peneliti mengembangkan E-LKPD berbasis inkuiri dengan berbantuan *liveworksheet* dengan bertujuan peningkatan nilai fisika peserta didik, khusus nya untuk meningkatkan pemahaman konsep fluida dinamis pada siswa XI SMA Free Methodist Medan. Penelitian ini termasuk kedalam jenis penelitian *Research and Development* (R&D) dengan model pengembangan ADDIE (*Analysis, Desain, Development, dan Evaluation*) yang didesain dengan model pembelajaran inkuiri. Instrumen penelitian yang digunakan terdiri dari instrumen kelayakan atau validasi dari ahli, instrumen kepraktisan dan instrumen keefektifan. Instrumen penelitian disebarkan melalui wawancara dan angket kuesioner. Penelitian melalui uji validasi ahli materi sebesar 98%, ahli media sebesar 93% dan ahli pembelajaran sebesar 75%. Kepraktisan memperoleh nilai sebesar 81% dari respons guru, dari kelompok kecil kelas X1-A SMA Free Methodist Medan dan dari kelompok besar kelas X1-A SMA Free Methodist Medan masing-masing sebesar 83%. Tingkat efektivitas E-LKPD dilihat dari perolehan *N-Gain* secara keseluruhan mencapai 0,7 termasuk ke dalam kriteria tinggi. Berdasarkan hasil penelitian tersebut E-LKPD berbasis inkuiri dengan berbantuan *liveworksheet* dinyatakan sangat layak untuk dan dipergunakan dalam pembelajaran fisika pada materi fluida dinamis di SMA Free Methodist Medan.

Kata Kunci: E-LKPD Inkuiri, *Liveworksheet*, Fluida Dinamis, Penelitian Pengembangan.

ABSTRACT

Joice Asima Putri Banjarnahor, NIM 4213321017. Development of Inquiry-Based Electronic Student Worksheets Assisted by Liveworksheet on Dynamic Fluids Material for Grade XI at Free Methodist High School in Medan

This research was based on the low learning outcomes of students in physics, according to the results of field observations, where many students still received physics scores below the minimum passing grade. The researcher developed an inquiry-based E-LKPD with the help of Liveworksheet, aiming to improve students' physics scores, specifically their understanding of fluid dynamics, among Grade XI students at Free Methodist High School in Medan. This research is classified as Research and Development (R&D) using the ADDIE (Analysis, Design, Development, and Evaluation) development model, which incorporates an inquiry-based learning approach. The research instruments used consisted of feasibility or validation instruments from experts, practicality instruments, and effectiveness instruments. The research instruments were distributed through interviews and questionnaires. The research was validated by subject matter experts (98%), media experts (93%), and learning experts (75%). Practicality obtained a score of 81% from teacher responses, based on the small group of class XI-A at Free Methodist High School in Medan, and from the large group of class XI-A at the same school. The level of effectiveness of E-LKPD, as seen from the overall N-Gain score of 0.7, was classified as high. Based on the results of this study, inquiry-based E-LKPD with the assistance of liveworksheets is considered very feasible and suitable for use in physics lessons on dynamic fluids at Free Methodist High School in Medan.

Keywords: *Inquiry-based E-LKPD, Liveworksheets, Dynamic Fluids, Developmental Research.*