

ABSTRAK

Mailina Samosir, NIM 4213121010 (2026). Pengaruh E-LKPD Berbasis *Problem Based Learning* untuk Meningkatkan Hasil Belajar pada Materi Sumber Energi.

Telah dilakukan penelitian pengaruh e-LKPD berbasis *Problem Based Learning* (PBL) terhadap hasil belajar dan untuk mengetahui peningkatan hasil belajar peserta didik dengan e-LKPD berbasis *problem based learning* pada materi sumber energi di kelas X SMA Negeri 10 Medan. Jenis penelitian adalah *quasi eksperiment* dengan desain penelitian menggunakan *pretest-posttest control group design*. Populasi penelitian ini ialah seluruh siswa kelas SMA Negeri 10 Medan yang berjumlah 7 kelas. Sampel diambil menggunakan teknik *simple random sampling*, sampel penelitian terdiri dari dua kelas. Kelas X-2 sebagai kelas eksperimen yang diberi perlakuan dengan menggunakan e-LKPD berbasis *problem based learning* (PBL) sedangkan kelas X-1 yang merupakan kelas kontrol yang diberi perlakuan dengan menggunakan pembelajaran konvensional. Instrumen penelitian yang digunakan dalam penelitian ini berupa tes yang sudah di validasi. Instrumen tes untuk mengukur hasil belajar berjumlah 20 soal pilihan berganda. Data *pretest* dan *posttest* hasil belajar siswa kelas eksperimen sebesar 40,14 dan 79,00 sedangkan kelas kontrol sebesar 40,71 dan 63,57. Peningkatan N-Gain hasil belajar siswa di kelas eksperimen sebesar 0,6 lebih besar dibandingkan di kelas kontrol yaitu 0,3. Berdasarkan hasil analisis data diperoleh bahwa penerapan e-LKPD berbasis PBL memberikan pengaruh yang lebih besar dibandingkan pembelajaran konvensional terhadap hasil siswa.

Kata Kunci : E-LKPD, *problem based learning*, hasil belajar, sumber energi.

ABSTRACT

Mailina Samosir, NIM 4213121010 (2026). The influence of E-LKPD Based on *Problem Based Learning* to Improve Learning Outcomes on Energy Source Material.

A reasearch the effect of e-LKPD based on Problem Based Learning (PBL) on learning outcomes and to determine the improvement of student learning outcomes with e-LKPD based on problem based learning on energy source material in class X of SMA Negeri 10 Medan. This type of research is a quasi-experimental study with a research design using a pretest-posttest control group design. The population of this study was all students of SMA Negeri 10 Medan, totaling 7 classes. Samples were taken using a simpler random sampling technique, the research sample consisted of two classes. Class X-2 as an experimental class was given treatment using e-LKPD based on problem based learning (PBL) while class X-1 which was a control class was given treatment using conventional learning. The research instrument used in this study was a validated test. The test instrument to measure learning outcomes amounted to 20 multiple choice questions. The pretest and posttest data of student learning outcomes in the experimental class were 40.14 and 79.00, while the control class was 40.71 and 63.57. The increase in N-Gain of student learning outcomes in the experimental class was 0.6, which was greater than in the control class, which was 0.3. Based on the results of data analysis, it was found that the implementation of PBL-based e-LKPD had a greater influence than conventional learning on student outcomes.

Keywords: E-LKPD, problem based learning, learning outcomes, energy sources.