

PENGARUH *PROJECT BASED E-LEARNING* TERHADAP PRESTASI BELAJAR FISIKA SISWA DI SMA

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ABSTRAK

Penelitian ini bertujuan mendeskripsikan perbedaan prestasi belajar fisika antara siswa yang belajar menggunakan model *Project Based E-Learning* dan siswa yang belajar menggunakan model *Direct E-Learning*. Penelitian ini adalah eksperimen semu (*quasi-experiment*) dengan *pretest-posttest non-equivalent control group design*. Sampel terdiri atas 72 orang yang terbagi dalam 2 kelompok. Kelompok eksperimen menerapkan *Project Based E-Learning* dan kelompok kontrol menerapkan *Direct E-Learning*. Data prestasi belajar dikumpulkan menggunakan 20 butir soal esai, dengan konsistensi internal butir bergerak dari $r = 0,41$ s.d $r = 0,68$ dan reliabilitas tes sebesar 0,868. Data dianalisis secara deskriptif dan Analisis Kovarian (ANAKOVA) satu jalur. Hasil penelitian menunjukkan: 1) Nilai rata-rata prestasi belajar fisika pada kelompok *Project Based E-Learning* dan *Direct E-Learning* masing-masing sebesar 75 dan 60 dengan standar deviasi 6,0 dan 7,5; 2) Uji hipotesis menunjukkan nilai $F^* = 88,601$ dengan *sig.* $0,001 < 0,05$. Simpulan penelitian ini adalah terdapat perbedaan prestasi belajar fisika antara siswa yang belajar menggunakan *Project Based E-Learning* dan siswa yang belajar menggunakan *Direct E-Learning*. Prestasi belajar fisika siswa yang belajar dengan model *Project Based E-Learning* lebih tinggi daripada siswa yang belajar dengan model *Direct E-Learning*. Implikasi penelitian ini, yaitu pembelajaran fisika kelas di SMA akan lebih bermakna jika siswa belajar dengan fasilitas *Project-Based E-Learning*.

Kata-kata kunci: model *Project Based E-Learning*, model *Direct E-Learning*, prestasi belajar, pembelajaran fisika.

THE EFFECT OF PROJECT BASED E-LEARNING TOWARDS PHYSICS LEARNING ACHIEVEMENT IN SENIOR HIGH SCHOOL

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ABSTRACT

This study was aimed at describing the difference in physics learning achievement between students who learn physics using the Project Based E-Learning model and students who learn physics using the Direct E-Learning model. A quasi-experimental with one-way pretest posttest non-equivalent control group design was used in this study. The sample consisted of 72 high school students who divided into 2 groups. The experimental group applied Project Based E-Learning model and the control group applied Direct E-Learning model. The data on physics learning achievement were collected using 20 essay items, with internal consistency of items used to be in the range from $r = 0,41$ to $r = 0,68$ and the value of the test reliability was 0,868. Data were analyzed by descriptive analysis and ANACOVA. The results showed: (1) The average value of physics learning achievement in the Project Based E-Learning and Direct E-Learning respectively by 75 and 60 with a standard deviation of 6,0 and 7,5; (2) Hypothesis test showed the value of $F^* = 88,601$ with *sig.* $0,001 < 0,05$. The conclusion of this study shows that there are differences in physics learning achievement between students who learn using Project Based E-Learning model and students who learn using Direct E-Learning model. Physics learning achievement of students who learn with Project Based E-Learning model are higher than those with Direct E-Learning model. The implications of this study is learning physics in high school will be more meaningful if students learn with Project Based E-Learning facilities.

Keywords: *project based e-learning model, direct e-learning model, learning achievement, physics learning.*