PENGARUH MODEL *PROBLEM BASED E-LEARNING* TERHADAP KEMAMPUAN PEMECAHAN MASALAH FISIKA SISWA KELAS X MIPA SMA NEGERI 1 PEKUTATAN

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ABSTRAK

Masalah utama dalam penelitian ini adalah rendahnya kemampuan pemecahan masalah fisika siswa. Tujuan penelitian ini adalah menganalisis perbedaan kemampuan pemecahan masalah siswa antara siswa yang belajar dengan model *Problem Based e-Learning* (*PBeL*) dan model *Direct Instruction e-Learning* (*DIeL*). Penelitian ini merupakan penelitian quasi eksperimen dengan desain *one way non-equivalent pretest-posttest control grups design*. Populasi penelitian adalah siswa kelas X MIPA SMA Negeri 1 Pekutatan Tahun Pelajaran 2019/2020 berjumlah 134 siswa. Sampel penelitian berjumlah 65 siswa dan terdistribusi ke dalam dua kelas, diambil dengan teknik *random assignment*. Data kemampuan pemecahan masalah siswa diperoleh melalui tes kemampuan pemecahan masalah. Nilai reliabitas tes 0,757. Konsistensi internal butir sebanyak 13 butir yang konsisten dari 15 soal di uji coba. Data dianalisis secara deskripsif untuk mencari nilai persentase dan *mean*, serta analisis kovarian (ANAKOVA) satu jalur (α = 0,05) dengan uji normalitas, uji homogenitas, uji linieritas dan uji hipotesis. Hasil penelitian ini menunjukan: 1) Nilai rata-rata kemampuan pemecahan masalah fisika siswa pada kelompok model *PBeL* dan model *DIeL* masing-masing sebesar (M = 96; SD = 8,7) dan (M = 83; SD = 10,1), 2) Uji hipotesis menunjukan nilai statistik F* = 269,956 dengan *sig*. 0,001 (p < 0,05) yang berarti hipotesis penelitian diterima. Hasil analsis menunjukan terdapat perbedaan kemampuan pemecahan masalah fisika siswa antara kelompok yang belajar dengan model *PBeL* dan model *DIeL*.

Kata-kata Kunci: Model *Problem Based e-Learning*, Model *Direct Instruction e-Learning*, Kemampuan Pemecahan Masalah

THE EFFECT OF PROBLEM BASED E-LEARNING MODEL ON THE PHYSICAL PROBLEM SOLVING ABILITY OF STUDENTS OF CLASS X MIPA SMA NEGERI 1 PEKUTATAN

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ABSTRACT

The main problem in this research is the low ability to solve physics problems of students. The purpose of this research was to analyze differences in students' problem solving abilities between students learning with the Problem Based e-Learning (PBeL) model and the Direct Instruction e-Learning (DIeL) model. This research is a quasi-experimental research with one way non-equivalent pretest-posttest control group design. The population of this research were 134 students of class X MIPA at SMA Negeri 1 Pekutatan in the academic year 2019/2020. The research sample consisted of 65 students and distributed into two classes, taken by random assignment technique. The data on students' problem solving abilities were obtained through tests of problem solving skills. The reability value of the test were 0,757. The internal consistency of the 13 items consisted of the 15 items in the trial. Data were analyzed using descriptive analysis to find the percentage and the mean and one way covariance analysis (ANAKOVA) (α = 0,05) with normality test, homogeneity test, linearity test and hypothesis test. The results of this study indicate: 1) The average value of the students' physics problem solving ability in the PBeL model group and the DIeL model group respectively (M = 96; SD = 8.7) and (M = 83; SD = 10.1), 2) Hypothesis test shows the statistical value F * = 269,956 with a significance value of 0.001 (p <0.05), which means that the research hypothesis is accepted. The results of the analysis showed that there were differences in students' physics problem solving ability between the group that studied with the PBeL model and DIeL model.

Keywords: Problem Based e-Learning Model, Direct Instruction e-Learning Model, Problem Solving Skill.