

Abstract

Sartika Wahyuni Samosir. The Influence of Problem Based Learning (PBL) Assisted by Digital Comics on Physics Problem-Solving Skills of Junior High School Students.

The research problem was triggered by observations showing low problem-solving skills among students in physics, particularly in the topic of work and energy. The purpose of this study is to determine the influence of the Problem Based Learning (PBL) model assisted by digital comics on students' physics problem-solving skills. This quasi-experimental study uses a control group pretest-posttest design. The population consists of all eighth-grade students of SMP Noble Medan, with VIII-1 as the experimental class and VIII-2 as the control class, selected using cluster random sampling. The research instruments include a test of physics problem-solving skills and digital comic media. Data analysis was conducted using normality and homogeneity tests, followed by hypothesis testing with the t-test. The findings indicate a significant positive influence of the PBL model assisted by digital comics on students' physics problem-solving skills. The experimental class showed higher post-test scores compared to the control class, leading to the rejection of H_0 and acceptance of H_a .

Keywords: Problem Based Learning, Digital Comics, Problem-Solving Skills, Physics Education

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Abstrak

Sartika Samosir. Pengaruh Model Pembelajaran *Problem Based Learning* (PBL) Berbantuan Komik Digital terhadap Kemampuan Pemecahan Masalah Fisika Siswa SMP.

Permasalahan penelitian dipicu oleh hasil observasi yang menunjukkan rendahnya kemampuan pemecahan masalah fisika di kalangan siswa, terutama pada materi usaha dan energi. Tujuan penelitian ini adalah untuk mengetahui pengaruh model pembelajaran *Problem Based Learning* (PBL) berbantuan komik digital terhadap kemampuan pemecahan masalah fisika siswa. Penelitian ini menggunakan desain quasi eksperimen dengan pretest-posttest control group design. Populasi penelitian adalah seluruh siswa kelas VIII SMP Noble Medan, dengan VIII-1 sebagai kelas eksperimen dan VIII-2 sebagai kelas kontrol yang dipilih melalui teknik cluster random sampling. Instrumen penelitian meliputi tes kemampuan pemecahan masalah fisika dan media komik digital. Analisis data dilakukan dengan uji normalitas dan homogenitas, diikuti dengan uji hipotesis menggunakan uji t. Hasil penelitian menunjukkan bahwa model PBL berbantuan komik digital memiliki pengaruh positif yang signifikan terhadap kemampuan pemecahan masalah fisika siswa. Kelas eksperimen menunjukkan skor post-test yang lebih tinggi dibandingkan kelas kontrol, sehingga H_0 ditolak dan H_a diterima.

Kata Kunci: *Problem Based Learning*, Komik Digital, Kemampuan Pemecahan Masalah, Pendidikan Fisika

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