

ABSTRAK

PENGARUH KOMIK MATEMATIKA DALAM PEMBELAJARAN DENGAN MODEL *PROBLEM BASED LEARNING* TERHADAP KEMAMPUAN REPRESENTASI MATEMATIS SISWA (Studi pada Siswa Kelas VIII SMP Negeri 5 Bandar Lampung Semester Ganjil Tahun Ajaran 2025/2026)

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Penelitian ini bertujuan untuk mengetahui pengaruh komik matematika dalam pembelajaran dengan model *problem based learning* terhadap kemampuan representasi matematis siswa. Populasi pada penelitian ini yaitu seluruh siswa kelas VIII SMP Negeri 5 Bandar Lampung pada semester ganjil tahun ajaran 2025/2026 yang terdistribusi dalam sembilan kelas yaitu kelas VIII.1 sampai VIII.9, dikecualikan kelas VIII.1 dan VIII.2 karena merupakan kelas unggulan. Pengambilan sampel dilakukan dengan teknik *purposive sampling* sehingga terpilih kelas VIII.3 sebagai kelas eksperimen dan kelas VIII.4 sebagai kelas kontrol. Penelitian ini merupakan jenis penelitian eksperimen semu dengan desain *Nonequivalent Control Group Design*. Instrumen yang digunakan yaitu instrumen tes kemampuan representasi matematis siswa berupa soal uraian. Berdasarkan hasil analisis data uji *t*, diperoleh hasil bahwa rata-rata *gain* kemampuan representasi matematis siswa yang mengikuti pembelajaran menggunakan komik matematika dengan model PBL lebih tinggi dibandingkan rata-rata *gain* kemampuan representasi matematis siswa yang mengikuti pembelajaran model PBL tanpa komik matematika. Sehingga dapat disimpulkan bahwa penggunaan komik matematika dalam pembelajaran *problem based learning* berpengaruh terhadap peningkatan kemampuan representasi matematis siswa.

Kata kunci: kemampuan representasi matematis, komik matematika, model *problem based learning*, pengaruh

ABSTRACT

THE EFFECT OF MATHEMATICAL COMICS IN LEARNING USING PROBLEM BASED LEARNING MODEL ON STUDENTS' MATHEMATICAL REPRESENTATION SKILLS (Study on 8th Grade of SMP Negeri 5 Bandar Lampung Odd Semester of the 2025/2026 Academic Year)

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This study aims to determine the effect of mathematics comics in learning with a problem-based learning model on students' mathematical representation abilities. The population in this study were all VIII grade students at SMP Negeri 5 Bandar Lampung in the odd semester of the 2025/2026 academic year, distributed across nine classes, namely classes VIII.1 to VIII.9, excluding classes VIII.1 and VIII.2 because they were honor classes. Sampling was conducted using purposive sampling, class VIII.3 selected as the experimental class and class VIII.4 selected as the control class. This research is a quasi-experimental research with a nonequivalent control group design. The instrument used is a test of students' mathematical representation skills in the form of essay questions. Based on the results of the t-test data analysis showed that the average gain in mathematical representation skills of students who participated in learning using mathematical comics with the PBL model was higher than the average gain in mathematical representation skills of students who participated in PBL learning without mathematical comics. So it can be concluded that the use of mathematical comics in problem based learning affects on improving students' mathematical representation skills.

Keywords: *mathematical representation skills, mathematical comics, problem based learning model, effect*