

ABSTRAK

PENGARUH MODEL *PROBLEM BASED LEARNING* (PBL) TERHADAP KEMAMPUAN KOMUNIKASI MATEMATIS SISWA (Studi Pada Siswa Kelas VIII SMP Negeri 9 Bandar Lampung Semester Ganjil Tahun Ajaran 2025/2026)

Oleh

ROSIANA RAMADHANI

Kesenjangan antara kemampuan komunikasi matematis yang diharapkan dan kemampuan aktual siswa disebabkan oleh kesulitan siswa dalam mengungkapkan ide, menjelaskan strategi penyelesaian, serta menyajikan solusi matematika secara lisan maupun tulisan. Penelitian ini bertujuan untuk mengetahui pengaruh model *Problem Based Learning* (PBL) terhadap kemampuan komunikasi matematis siswa. Populasi dalam penelitian ini adalah seluruh siswa kelas VIII SMP Negeri 9 Bandar Lampung pada semester ganjil tahun ajaran 2025/2026 sebanyak 256 siswa yang terdistribusi dalam sembilan kelas. Pengambilan sampel dilakukan dengan teknik *cluster random sampling*. Terpilih kelas VIII-G sebanyak 27 siswa dan kelas VIII-I sebanyak 27 siswa sebagai sampel. Penelitian ini menggunakan desain *posttest only control group design*. Penelitian menggunakan data kuantitatif yang diperoleh dari tes kemampuan komunikasi matematis siswa pada materi relasi dan fungsi. Berdasarkan analisis data menggunakan uji t diperoleh bahwa rata-rata kemampuan komunikasi matematis siswa yang mengikuti pembelajaran dengan model PBL lebih dari rata-rata kemampuan komunikasi matematis siswa yang mengikuti pembelajaran konvensional. Dengan demikian, dapat disimpulkan bahwa model PBL berpengaruh terhadap kemampuan komunikasi matematis siswa.

Kata kunci: kemampuan komunikasi matematis, *Problem Based Learning* (PBL), pengaruh

ABSTRACT

THE EFFECT OF PROBLEM LEARNING MODEL (PBL) ON STUDENTS' MATHEMATICAL COMMUNICATION SKILLS (Study on students of Class VIII SMP Negeri 9 Bandar Lampung Odd Semester of the 2025/2026 Academic Year)

By

ROSIANA RAMADHANI

The gap between the expected level of mathematical communication skills and students' actual skills was caused by students' difficulties in expressing ideas, explaining problem-solving strategies, and presenting mathematical solutions both orally and in written form. This study aimed to examine the effect of the Problem Based Learning (PBL) model on students' mathematical communication skills. The population of this study consisted of all eighth-grade students of SMP Negeri 9 Bandar Lampung in the odd semester of the 2025/2026 academic year, totaling 256 students distributed across nine classes. The sample was selected using cluster random sampling, resulting in class VIII-G with 27 students and class VIII-I with 27 students as the sample groups. This study employed a posttest-only control group design and used quantitative data obtained from a mathematical communication skills test on the topic of relations and functions. Based on the data analysis using the t-test, the results showed that the mean mathematical communication skills of students who were taught using the PBL model were higher than those of students who were taught using conventional learning. Therefore, it was concluded that the PBL model had a significant effect on students' mathematical communication skills.

Keywords: *mathematical communication skills, Problem Based Learning (PBL), effect*