

ABSTRAK

PENGARUH MODEL *PROBLEM BASED LEARNING* TERHADAP KEMAMPUAN REPRESENTASI MATEMATIS SISWA (Studi pada Siswa Kelas VIII SMP Negeri 20 Bandar Lampung Semester Ganjil Tahun Pelajaran 2025/2026)

Oleh

ELSYE AZIZA

Penelitian ini memiliki tujuan untuk mengetahui pengaruh model *problem based learning* terhadap kemampuan representasi matematis siswa. Metode penelitian yang digunakan ialah penelitian eksperimen semu (*quasi experiment*). Populasi penelitian ini adalah siswa kelas VIII SMP Negeri 20 Bandar Lampung semester ganjil tahun pelajaran 2025/2026 dengan siswa sebanyak 304 siswa yang terdistribusi ke dalam sepuluh kelas. Sampel penelitian ini adalah siswa kelas VIII.F dan VIII.I yang masing-masing terdiri dari 30 siswa yang dipilih dengan teknik *cluster random sampling*. Desain penelitian yang digunakan adalah *pretest-posttest control group design*. Data penelitian ini yaitu data kuantitatif yang didapatkan dari tes kemampuan representasi matematis. Analisis data penelitian ini menggunakan uji *Mann Whitney U*. Hasil penelitian menunjukkan bahwa peningkatan kemampuan representasi matematis siswa yang mengikuti model *problem based learning* lebih tinggi daripada peningkatan kemampuan representasi matematis siswa yang mengikuti model *direct learning* sebagai model pembelajaran konvensional. Dengan demikian, model *problem based learning* berpengaruh terhadap kemampuan representasi matematis siswa.

Kata Kunci: kemampuan representasi matematis, pengaruh, *problem based learning*

ABSTRACT

THE EFFECT OF PROBLEM BASED LEARNING MODEL ON STUDENS' MATHEMATICAL REPRESENTATION SKILLS (A Study on 8th Grade Students of SMP Negeri 20 Bandar Lampung in the Odd Semester of 2025/2026 Academic Year)

By

ELSYE AZIZA

The purpose of the study was to determine the effect of problem based learning model on students' mathematical representation skills. The research method used was quasi experiment research. The population was all 304 students of class VIII grade students of SMP Negeri 20 Bandar Lampung odd semester of the 2025/2026 academic year which were distributed into ten classes. The samples in this research was students of class VIII.F and VIII.I, each consisting of 30 students selected by cluster random sampling technique. The research design used was pretest-posttest control group design. The data of this research is quantitative data obtained from the mathematical representation skills test. Data analysis in this study used the Mann Whitney U. The result showed that the increase in mathematical representation skills of students who followed the problem based learning model was higher than the increase in mathematical representation skills of students who followed direct learning model as a conventional learning model. Thus, problem based learning model have an effect on students' mathematical representation skills.

Keyword: effect, mathematical representation skills, problem based learning