ABSTRAK

EFEKTIVITAS MODEL *PROBLEM BASED LEARNING* DITINJAU DARI KEMAMPUAN REPRESENTASI MATEMATIS SISWA (Studi pada Siswa Kelas VIII MTs Darul Ma'arif Natar Semester Ganjil Tahun Pelajaran 2023/2024)

Oleh

TRI HARIYANI

Penelitian ini bertujuan untuk mengetahui efektivitas model *Problem Based Learning* (PBL) ditinjau dari kemampuan representasi matematis siswa. Populasi dalam penelitian ini adalah seluruh siswa kelas VIII MTs Darul Ma'arif Natar semester ganjil tahun pelajaran 2023/2024 yang berjumlah 131 siswa yang terdistribusi ke dalam lima kelas. Sampel dipilih menggunakan teknik *purposive sampling*, sehingga terpilih kelas VIII-B dengan jumlah 28 siswa sebagai kelas eksperimen dan kelas VIII-C dengan jumlah siswa 25 siswa sebagai kelas kontrol. Desain yang digunakan adalah *pretest-posttest control group design*. Data penelitian ini berupa data kuantitatif yang diperoleh dari hasil tes kemampuan representasi matematis. Berdasarkan hasil uji hipotesis menggunakan uji t' (perbedaan rata-rata) diperoleh bahwa rata-rata kemampuan representasi matematis siswa yang mengikuti model PBL lebih tinggi daripada siswa yang mengikuti pembelajaran dengan model konvensional. Selanjutnya, berdasarkan hasil uji proporsi diperoleh bahwa siswa yang memiliki kemampuan representasi matematis terkategori baik pada kelas yang mengikuti pembelajaran dengan model PBL lebih dari 60%. Dengan demikian, model PBL efektif ditinjau dari kemampuan representasi matematis siswa.

Kata kunci: efektivitas, *problem based learning*, kemampuan representasi matematis

ABSTRACT

THE EFFECTIVENESS OF THE PROBLEM BASED LEARNING MODEL REVIEWED FROM THE MATHEMATICAL REPRESENTATION ABILITY OF STUDENTS (Study on Students of Class VIII MTs Darul Ma'arif Natar Odd Semester of the 2023/2024 Academic Year)

by

TRI HARIYANI

This study aims to determine the effectiveness of the Problem-Based Learning (PBL) model on the mathematical representation abilities of students. The population in this study consists of all grade VIII students of MTs Darul Ma'arif Natar during the odd semester of the 2023/2024 school year, totaling 131 students distributed across five classes. The sample was selected using purposive sampling techniques, resulting in class VIII-B, with a total of 28 students, being chosen as the experimental class, and class VIII-C, with a total of 25 students, as the control class. The design employed is a pretest-posttest control group design. The data for this study is quantitative, obtained from the results of the mathematical representation ability test. Based on the results of the hypothesis test using the t-test (for average differences), it was found that the average mathematical representation ability of students who participated in the PBL model was higher than that of students who engaged in learning with the conventional model. Furthermore, the results of the proportion test indicated that more than 60% of students in the class that participated in learning with the PBL model were categorized as having good mathematical representation skills. Thus, the PBL model is effective in enhancing the mathematical representation abilities of students.

Keywords: *effectiveness, problem based learning, mathematical representation ability*