**ABSTRAK**

Penelitian ini bertujuan untuk mengetahui pengaruh model *Problem Based Learning (PBL)* terhadap kemampuan representasi matematis siswa. Metode penelitian yang digunakan adalah eksperimen semu. Teknik pengambilan sampel menggunakan *cluster random sampling* terhadap 7 kelas dengan populasi sejumlah 197 siswa SMP Negeri 7 Metro dan diperoleh sampel siswa kelas VII F sebagai kelas eksperimen model *Problem Based Learning (PBL)* dan siswa kelas VII G sebagai kelas kontrol model *Problem Posing*. Instrumen yang digunakan dalam penelitian ada tes, observasi dan wawancara. Teknik analisis data yang digunakan yaitu Uji-t. Hasil penelitian dengan $\alpha = 0{,}05$ diperoleh $t_{hitung} = 3{,}3596 > t_{tabel} = 2{,}0057$, $H_O$ ditolak. Hal ini berarti kemampuan representasi matematis siswa dengan menggunakan *Problem Based Learning (PBL)* tidak sama dengan kemampuan representasi matematis siswa yang menggunakan *Problem Posing*. Dengan demikian, terdapat pengaruh *Problem Based Laerning (PBL)* terhadap kemampuan representasi matematis siswa pada materi operasi hitung bilangan bulat. Nilai rata-rata kemampuan representasi matematis siswa dengan *Problem Based Laerning (PBL)* sebesar $71{,}33$ lebih tinggi dibandingkan rata-rata kemampuan representasi matematis siswa dengan menggunakan *Problem Posing* sebesar $52{,}24$. Hal ini berarti kemampuan representasi matematis dengan *Problem Based Laerning (PBL)* lebih baik dibandingkan dengan kemampuan representasi matematis dengan *Problem Posing*. Penelitian selanjutnya dapat memfokuskan pada satu indikator kemampuan representasi matematis.

**Kata Kunci:** Kemampuan Representasi Matematis, *Problem Based Learning (PBL)*


***ABSTRACT***

*This study aims to determine the effect of the Problem-Based Learning (PBL) model on students' mathematical representation abilities. The research method used was quasi-experimental. The sampling technique was cluster random sampling across 7 classes, with a population of 197 students at SMP Negeri 7 Metro. The sample consisted of students from Class VII F as the experimental group using the Problem-Based Learning (PBL) model and students from Class VII G as the control group using the Problem Posing model. The instruments used in the study were tests, observation, and interviews. The data analysis technique used was the t-test. The results of the study, with α=0.05, showed t_calculated=3.3596 > t_table=2.0057, which led to the rejection of the null hypothesis (H_O). This means that the mathematical representation abilities of students using Problem-Based Learning (PBL) differ from those of students using Problem Posing. Thus, there is an effect of Problem-Based Learning (PBL) on students' mathematical representation abilities in the topic of integer operations. The average score of students' mathematical representation abilities with Problem-Based Learning (PBL) was 71.33, which was higher than the average score of students using Problem Posing, which was 52.24. This indicates that mathematical representation abilities using the Problem-Based Learning (PBL) model are better than those using the Problem Posing model. Future research can focus on one specific indicator of mathematical representation abilities.*

***Keywords:*** *Mathematical Representation Ability, Problem Based Learning (PBL)*