

ABSTRAK

Irni Latifa Irsal (2017). Peningkatan Kemampuan Pemahaman dan Pemecahan Masalah Matematis Siswa SMP Melalui Model Penemuan Terbimbing pada Materi Garis dan Sudut

Kesenjangan antara pentingnya kemampuan pemahaman dan pemecahan masalah matematis dan rendahnya kemampuan pemahaman dan pemecahan masalah matematis siswa SMP melatar belakangi penelitian ini. Penelitian ini bertujuan untuk mengkaji peningkatan kemampuan pemahaman dan pemecahan masalah siswa SMP dengan menerapkan model pembelajaran penemuan terbimbing. *Mix method design* diterapkan dalam penelitian ini, dengan tipe *concurrent embedded*. Sebanyak 38 siswa kelompok eksperimen dan 38 siswa kelompok kontrol pada kelas VII semester genap salah satu SMP di Kabupaten Bandung Barat menjadi sampel penelitian. Kelompok eksperimen mendapatkan pembelajaran dengan model penemuan terbimbing dan kelompok kontrol mendapatkan pembelajaran biasa. Instrumen penelitian berupa tes kemampuan pemahaman dan pemecahan masalah. Analisis kuantitatif dilakukan dengan menggunakan uji statistik perbedaan rerata dua sampel yang independen untuk melihat perbedaan kemampuan pemahaman dan pemecahan matematis dari dua kelompok sampel. Analisis kualitatif dilakukan berdasarkan hasil wawancara dan analisis jawaban siswa, untuk mendukung data kuantitatif serta untuk mengupas tingkat ketercapaian kemampuan pemahaman dan pemecahan masalah siswa. Hasil penelitian memberikan gambaran bahwa peningkatan kemampuan pemahaman siswa pada kelompok eksperimen lebih baik secara keseluruhan dibanding siswa pada kelompok kontrol. Secara keseluruhan, pencapaian kemampuan pemahaman siswa pada kelompok eksperimen menghasilkan 3 tipe siswa level tinggi, 4 tipe untuk siswa level sedang, dan 2 tipe untuk siswa level rendah. Peningkatan kemampuan pemecahan masalah siswa kelompok eksperimen lebih baik secara keseluruhan dibanding siswa kelompok kontrol. Secara keseluruhan, pencapaian kemampuan pemecahan masalah siswa kelas eksperimen menghasilkan dua tipe untuk siswa level tinggi, dua tipe untuk siswa level sedang, dan satu tipe untuk siswa level rendah.

Kata Kunci : geometri, garis dan sudut, kemampuan pemahaman, kemampuan pemecahan masalah, model penemuan terbimbing.

ABSTRACT

Irni Latifa Irsal (2017). Improvement of Junior High School Students' Mathematical Understanding and Problem-Solving Abilities through Guided Discovery Model on the Topic of Lines and Angles

The gap between the importance of mathematical understanding ability and problem-solving ability and the low level of these abilities among junior high school students is the background of this research. It aims to analyze the improvement of junior high school students' mathematical understanding and problem solving abilities by applying guided discovery learning model. Mix methods design with the concurrent embedded method was employed in this research. A total of 38 seventh grade students of the experimental group and 38 of the control group from one of the junior high schools in Bandung Barat Regency were involved as the research sample. The experimental group learned with guided discovery model and the control group was treated with conventional learning. The research instrument was in the form of test of understanding and problem solving abilities. Quantitative analysis was performed by conducting a mean difference test for two independent samples to see the difference in the mathematical understanding and problem-solving abilities of the two sample groups. Qualitative analysis was carried out to the results of interviews and analysis of student answers, to support quantitative data and to reveal the attainment levels of students' understanding and problem solving abilities. The results indicate that the improvement of experimental group students' mathematical understanding ability was in general better than that of the control group students. Overall, the attainment of experimental group students' understanding ability resulted in three types of high-level students, four types of middle-level students, and two types of low-level students. Similarly, the improvement of experimental class students' problem-solving ability was as a whole better than that of the control group students. Overall, the attainment of experimental class students' problem-solving ability generated two types of high-level students, two types of middle-level students, and one type of low-level students.

Keywords: Geometry, lines and angles, understanding ability, problem-solving ability, guided discovery model