

ABSTRAK

Nur Aliyyah Irsal (2015). **Peningkatan Kemampuan Pemecahan Masalah dan Koneksi Matematis serta *Self-Regulation* Siswa SMP dengan Pendekatan *Metacognitive Guidance*.**

Penelitian ini bertujuan untuk mengkaji peningkatan kemampuan pemecahan masalah dan koneksi matematis, serta *self-regulation* siswa SMP dengan menerapkan pembelajaran matematika dengan pendekatan *metacognitive guidance*. Penelitian ini merupakan penelitian kuasi eksperimen dengan desain *nonequivalent control group design*. Pengambilan sampel dilakukan dengan teknik *purposive sampling*, sehingga diperoleh 37 siswa kelompok eksperimen dan 34 siswa kelompok kontrol pada kelas VIII semester genap di salah satu SMP di Kabupaten Bandung Barat. Kelompok eksperimen diberi pembelajaran dengan pendekatan *metacognitive guidance*, sedangkan kelompok kontrol diberi pembelajaran dengan pendekatan saintifik. Instrumen penelitian yang digunakan adalah soal tes kemampuan pemecahan masalah dan koneksi matematis, serta angket *self-regulation*. Analisis data kuantitatif dilakukan dengan menggunakan uji statistik perbedaan rerata dua sampel yang independen untuk melihat perbedaan kemampuan kedua kelompok sampel, serta analisis korelasi untuk melihat hubungan antara kemampuan pemecahan masalah dan koneksi matematis serta *self-regulation* siswa. Berdasarkan hasil penelitian, diperoleh kesimpulan: (1) peningkatan kemampuan pemecahan masalah dan koneksi matematis siswa yang memperoleh pembelajaran dengan pendekatan *metacognitive guidance* lebih tinggi secara signifikan daripada siswa yang memperoleh pembelajaran dengan pendekatan saintifik; (2) *self-regulation* siswa yang memperoleh pembelajaran dengan pendekatan *metacognitive guidance* lebih tinggi secara signifikan daripada siswa yang memperoleh pembelajaran dengan pendekatan saintifik; dan (3) terdapat hubungan yang positif antara kemampuan pemecahan masalah matematis dengan kemampuan koneksi matematis siswa, antara kemampuan pemecahan masalah matematis dengan *self-regulation* siswa, dan antara kemampuan koneksi matematis dengan *self-regulation* siswa.

Kata kunci: kemampuan pemecahan masalah matematis, kemampuan koneksi matematis, *self-regulation*, pendekatan *metacognitive guidance*, pendekatan saintifik.

ABSTRACT

Nur Aliyyah Irsal (2015). **The Enhancement of Junior High School Students' Mathematical Problem Solving, Mathematical Connection, and Self-regulation by Metacognitive Guidance Approach.**

This research's aims is to study the enhancement of junior high school students' mathematical problem solving, mathematical connection, and self-regulation by using metacognitive guidance in mathematics classroom. This research is a quasi experiment with nonequivalent control group design. The sampling was done by purposive sampling technique towards the VIII grade students in the one of Junior High School in Bandung Barat, with results 37 students in experiment group, and 34 students in control group. the experiment group was taught by metacognitive guidance learning, and the control group was taught by scientific learning. The instruments used in this research were mathematical problem solving and mathematical connection test sheet, and a self-regulation questionnaire. The data analysis were using the statistics of two independent sample to analyze the difference of the students' abilities in each group. The analysis were also using the correlation statistics to analyze the relationships between students' mathematical problem solving and mathematical connection, between students' mathematical problem solving and self-regulation, and also between students' mathematical connection and self-regulation. The results of this research are (1) the enhancement of students' mathematical problem solving and mathematical connection with metacognitive guidance learning were significantly higher than the scientific learning students'; (2) the self-regulation of students with metacognitive guidance learning were significantly higher than the scientific learning students'; and (3) there is a positive relationship between students' mathematical problem solving and mathematical connection, between students' mathematical problem solving and self-regulation, also between students' mathematical connection and self-regulation.

Keywords: mathematical problem solving, mathematical connection, self-regulation, metacognitive guidance, scientific learning