

ABSTRAK

Cut Multahadah (2015). **Penerapan Teknik *Metacognitive Scaffolding* dengan Pendekatan Saintifik untuk Meningkatkan Kemampuan Pemecahan Masalah Matematis dan Motivasi Berprestasi Siswa SMA.**

Penelitian ini dilatarbelakangi rendahnya kemampuan pemecahan masalah matematis dan motivasi berprestasi siswa. Berdasarkan kajian literatur dan penelitian sebelumnya diprediksi teknik *metacognitive scaffolding* dengan pendekatan saintifik dapat meningkatkan kemampuan pemecahan masalah matematis dan motivasi berprestasi siswa. Penelitian *quasi eksperimen* ini menggunakan pendekatan kuantitatif dan kualitatif dengan desain *Nonequivalent Control Group Design*. Populasinya meliputi siswa kelas X Matematika dan Ilmu Pengetahuan Alam di salah satu SMA di Kota Bandung dengan sampel terdiri atas kelas eksperimen melalui perlakuan teknik *metacognitive scaffolding* dengan pendekatan saintifik dan kelas kontrol dengan pendekatan saintifik. Sampel diperoleh menggunakan teknik *purposive sampling*. Instrumen yang digunakan berupa soal tes kemampuan pemecahan masalah matematis dan angket motivasi berprestasi. Temuan penelitian ini adalah: (1) Terdapat perbedaan secara signifikan peningkatan kemampuan pemecahan masalah matematis siswa yang belajar dengan teknik *metacognitive scaffolding* dengan pendekatan saintifik dan siswa yang belajar dengan pendekatan saintifik; (2) Terdapat perbedaan peningkatan kemampuan pemecahan masalah matematis siswa yang belajar dengan teknik *metacognitive scaffolding* dengan pendekatan saintifik dan siswa yang belajar dengan pendekatan saintifik kelompok KAM-tengah; (3) Tidak terdapat interaksi secara signifikan antara pembelajaran dan KAM (atas, tengah, bawah) terhadap peningkatan kemampuan pemecahan masalah matematis siswa; (4) Tidak terdapat perbedaan yang signifikan antara motivasi berprestasi siswa yang memperoleh teknik *metacognitive scaffolding* dengan pendekatan saintifik dan siswa yang memperoleh pendekatan saintifik.

Kata kunci: kemampuan pemecahan masalah matematis, motivasi berprestasi siswa, teknik *metacognitive scaffolding* dengan pendekatan saintifik, pendekatan saintifik.

ABSTRACT

Cut Multahadah (2015). The Implementation of Metacognitive Scaffolding Techniques with Scientific Approach to Improve Mathematical Problem Solving Ability and The Achievement Motivation of Senior High School Students.

This study is triggered by the lack of mathematical problem solving ability and students' achievement motivation. Based on literature reviews and previous studies, it is predicted that *metacognitive scaffolding* techniques with scientific approach can improve mathematical problem solving ability and students' achievement motivation. This research is quasi experimental study using quantitative and qualitative approach named *Nonequivalent Control Group Design*. The population of this research is the students of class X of Mathematic and Science at a senior high school in Bandung. The sample of this study is divided to experimental group and control group. The students of experimental group are taught by using *metacognitive scaffolding* technique with scientific approach, while the students of control group are taught by using scientific approach. The sample is chosen purposively named *purposive sampling technique*. The instruments of this study are test of mathematic problem solving ability and questionnaires of students' achievement motivation. The Findings of this study are: (1) there is a significant difference of the improvement of mathematical problem solving ability between students who are taught by using *metacognitive scaffolding* techniques with scientific approach and those who are taught by using scientific approach; (2) There is a significant difference of the improvement of mathematical problem solving ability between students who are taught by using *metacognitive scaffolding* techniques with scientific approach and those who are taught by using scientific approach for KAM-middle group; (3) There is no significant interaction between learning activity and KAM (upper, middle, and lower group) toward the improvement of students' mathematical problem solving ability; (4) There is no significant difference achievement motivation between both groups of students.

Key Words: mathematical problem solving ability, students' achievement motivation, metacognitive scaffolding technique with scientific approach, scientific approach.

