

## ABSTRAK

Juhairiah (2016) : Metode *IMPROVE* untuk Meningkatkan Kemampuan Pemahaman dan Representasi Matematis serta *Self-Efficacy* Siswa Sekolah Menengah Pertama

Tujuan penelitian ini adalah menyelidiki pencapaian dan peningkatan kemampuan pemahaman matematis (KPM), representasi matematis (KRM), dan pencapaian *self-efficacy* (*SE*) siswa sekolah menengah pertama (SMP) yang memperoleh pendekatan metakognitif dengan metode *IMPROVE*. Penelitian ini adalah penelitian kuantitatif dengan desain kuasi-eksperimen dengan pretes dan postes. Populasi penelitian adalah seluruh siswa kelas VIII pada salah satu SMP Negeri di Lembang. Adapun sampelnya adalah 77 orang siswa dari dua kelas yang terdiri dari kelas eksperimen yaitu kelas yang memperoleh pendekatan metakognitif dengan metode *IMPROVE* (PMI) dan kelas kontrol yaitu kelas yang memperoleh pendekatan saintifik (PS). Instrumen penelitian terdiri dari tes pengetahuan awal matematis (PAM), tes kemampuan pemahaman dan representasi matematis, serta skala *SE*. Berdasarkan hasil analisis data, ditemukan bahwa (1) secara keseluruhan, pencapaian dan peningkatan KPM siswa yang memperoleh PMI lebih baik daripada siswa yang memperoleh PS. Sedangkan ditinjau dari PAM, siswa dengan PAM atas yang memperoleh PMI lebih baik pencapaian dan peningkatan KPMnya daripada siswa yang memperoleh PS; (2) secara keseluruhan maupun ditinjau dari PAM, peningkatan KRM siswa yang memperoleh PMI lebih baik dari siswa yang memperoleh PS; (3) secara keseluruhan maupun ditinjau dari PAM, ditemukan bahwa tidak ada perbedaan pencapaian *SE* antara siswa yang memperoleh PMI dengan siswa yang memperoleh PS; (4) adanya korelasi antara pencapaian KPM dengan KRM, adanya asosiasi antara pencapaian KPM dengan *SE*, dan tidak ada asosiasi antara pencapaian KRM dengan *SE*.

Kata kunci : Metode *IMPROVE*, pendekatan metakognitif, pendekatan saintifik, pemahaman matematis, representasi matematis, *self-efficacy*

## ABSTRACT

Juhairiah (2016) : **IMPROVE** Method to Enhance Mathematical Understanding and Representation Ability along with Self-efficacy of Junior High School Students.

The purpose of this study is to examine the achievement and enhancement of mathematical understanding and representation ability, along with self-efficacy of junior high school students who get mathematics learning with metacognitive approach using **IMPROVE** method. This was a quantitative study with quasi-experimental using pretest and posttest design. The Population of this study was all students of eight grade in one of junior high schools in Lembang. The sample was 77 students from two classes, one class was experimental class who received metacognitive approach with **IMPROVE** method (PMI), and another class was control class who received scientific approach (PS). The instruments of this study were test of mathematical prior knowledge (PAM), test of mathematical understanding and representation ability, and self-efficacy scale. Based on the analysis of the data, it is found that (1) Overall, the achievement and enhancement of students' mathematical understanding ability who receive PMI are better than students who receive PS. Whereas based on PAM, students with high PAM who receive PMI have better mathematical understanding than who receive PS. (2) as overall and based on PAM, students' enhancement of mathematical representation ability who receive PMI is better than students who receive PS. (3) as overall and based on PAM, there is no difference of achievement of students' self-efficacy who receive PMI and who receive PS. (4) There is a correlation between the achievement of mathematical understanding and representation ability, there is an association between the achievement of mathematical understanding ability and self-efficacy, and there is no association between the achievement of mathematical representation ability and self-efficacy.

Keyword : **IMPROVE** method, metacognitive approach, scientific approach, mathematical understanding, mathematical representation, self-efficacy

