

ABSTRAK

Maulani Meutia Rani (1502514) Meningkatkan Kemampuan Pemecahan Masalah dan Komunikasi Matematis dengan Pendekatan *Realistic Mathematics Education* berbasis Teori *Multiple Intelligence*

Penelitian ini di latar belakang oleh masih rendahnya kemampuan pemecahan masalah dan kemampuan komunikasi matematis siswa. Tujuan dari penelitian ini adalah untuk menganalisis peningkatan kemampuan pemecahan masalah dan kemampuan komunikasi matematis siswa SMP secara keseluruhan maupun ditinjau berdasarkan kategori kemampuan awal matematik (KAM) siswa. Metode penelitian ini adalah *quasi experiment* dengan *nonequivalent control group design*. Sampel pada penelitian ini sebanyak 34 orang siswa kelas eksperimen dan 36 orang siswa kelas kontrol pada kelas VII di salah satu SMPN negeri di Lembang. Kelas eksperimen menggunakan pembelajaran dengan pendekatan *Realistic Mathematics Education* berbasis teori *Multiple Intelligence* dan kelas kontrol menggunakan pembelajaran konvensional. Instrument yang digunakan adalah tes kemampuan pemecahan masalah dan komunikasi matematis. Analisis data kuantitatif dilakukan dengan menggunakan *independent t-test* atau *Mann-Whitney* terhadap data pretes dan skor gain ternormalisasi kemampuan pemecahan masalah dan komunikasi matematis terhadap dua grup sample. Berdasarkan hasil penelitian menunjukkan bahwa: (1) peningkatan kemampuan pemecahan masalah siswa yang memperoleh pembelajaran dengan pendekatan *Realistic Mathematics Education* berbasis teori *Multiple Intelligence* lebih tinggi daripada siswa yang memperoleh pembelajaran konvensional, baik ditinjau berdasarkan keseluruhan siswa maupun berdasarkan kategori KAM tinggi dan KAM sedang; (2) peningkatan kemampuan komunikasi siswa yang memperoleh pembelajaran dengan pendekatan *Realistic Mathematics Education* berbasis teori *Multiple Intelligence* lebih tinggi daripada siswa yang memperoleh pembelajaran konvensional, baik ditinjau berdasarkan keseluruhan siswa maupun berdasarkan kategori KAM tinggi dan KAM sedang. Sedangkan, untuk kategori KAM rendah peningkatan kemampuan pemecahan masalah dan komunikasi matematis siswa yang memperoleh pembelajaran dengan pendekatan *Realistic Mathematics Education* berbasis teori *Multiple Intelligence* tidak lebih tinggi daripada siswa yang memperoleh pembelajaran konvensional.

Kata Kunci : Pemecahan Masalah, Komunikasi, Pendekatan *Realistic Mathematics Educations* berbasis teori *Multiple Intelligence*

ABSTRACT

Maulani Meutia Rani (1502514) Enhancement Students' Mathematical Problem Solving and Communication Abilities of Junior High School Students with Realistic Mathematics Education Approach base on Multiple Intelligences Theory

Background of this study is mathematical problem solving ability and communication ability of students are still low. The purpose of this study is to analyzes the enhancement of mathematical problem solving and communication ability of Junior High School students based on overall student and the category of student mathematical commencement. Method of this research is quasi experimental with non-equivalent control group design. As much as 34 students of experimental group and 36 students of control group in grade VII in one of junior high school in Lembang become sample of this study. Experimental group used realistic mathematics education approach base on multiple intelligences theory and control group used conventional learning. The research instruments are problem solving and communication ability test. Quantitative data analyzed using *independent t-test* or *Mann-Whitney* toward the data of pretest and normalized gain score of problem solving and communication abilities of two groups samples. The results of the research shows that: (1) the increase of problem solving ability from students who acquired realistic mathematics education approach base on multiple intelligences theory learning is higher than students who acquired conventional learning, either the overall nor based on the category of student mathematical commencement ability (high, medium); (2) the increase of communication ability from students who acquired realistic mathematics education approach based on multiple intelligences theory learning is higher than students who acquired conventional learning, either the overall nor based on the category of student mathematical commencement ability (high, medium). But, for category of student mathematical commencement ability low the increase of problem solving and communication ability from students who acquired realistic mathematics education approach based on multiple intelligences theory learning isn't higher than that of students who acquired conventional learning.

Keywords : Problem solving, communication, Realistic Mathematics Educations Approach based on Multiple Intelligences

