**ABSTRACT**

**Karyono**. (2014). THE APPLICATION OF PORTOFOLIO ASSESMENT BASED ON PROBLEMS TO IMPROVE PROBLEM SOLVING SKILL AND MATHEMATICAL CONNECTION OF MTs (ISLAMICS JUNIOR HIGH SCHOOL) STUDENTS.

The purpose of this research is to know which improvement is better in problem solving skill and mathematical connection between students who acquired the application of portofolio assesment based on problems in mathematic learning. This research applied mix method with embedded concerent strategy, is a research method that combines the using of quantitative and qualitative research methods simultaneously (or otherwise) but the weight/valve of the method is different. The population of this research were all eight grade students of MTsN (state islamic junior high school) Krangkeng Indramayu, and took two sample classes of eight grade raudomly. The instruments that used include the questions of problem solving skill and mathematical connection, attitude scale to measure students, attitudes, an observation and an interview to know the students error answers, and an implemetation of the portofolio assesment. And the results showed: 1) there is a difference in problem solving skill and mathematical connection between students who acquired the portofolio assesment based on problem and the conventional learning, 2) there is an increasing difference is problem solving skill and mathematical connection between students who acquired the portofolio assesment based on problem and the conventional learning looked from their first abilities in mathematics (high, middle, low), 3) there is a positive attitude of students after applying the portofolio assesment based on problem, 4) there is a decreasing of errors and mistakes in answering the test questions about problem solving skill and mathematical connection in the class that applied portofolio assesment, 5) the implementation of portofolio assesment based on problem in mathematics learning worked well and created active students in discussions and answering mathematics questions.

Key word: Portofolio assesment based on problems, Portofolio learning, Problem solving skill and mathematical connection.