**ABSTRAK**

Yuli Endang Susilawati. (2015). Peningkatan Kemampuan Penalaran dan Komunikasi Matematis Siswa Sekolah Menengah Pertama dengan Model Pembelajaran *Discovery* *Learning* dan *Problem Based Learning*. UNPAS. Bandung.

Tujuan dari penelitian ini adalah untuk mengetahui perbandingan kemampuan penalaran dan komunikasi matematis antara siswa yang memperoleh pembelajaran dengan model *Discovery* *Learning*, *Problem Based Learning* dan konvensional, serta untuk membandingkan antara model pembelajaran *Discovery* *Learning*, *Problem Based Learning* dan konvensional yang berpengaruh paling tinggi terhadap kemampuan penalaran dan komunikasi matematis siswa. Desain penelitian yang digunakan *group pretes-postes design*. Populasi penelitian adalah seluruh siswa kelas VIII SMPN 1 Margahayu, sedangkan sampelnya adalah siswa kelas VIII E, VIII F, dan VIII G yang masing-masing terdiri dari 30 siswa. Pada penelitian ini kelompok eksperimen 1 memperoleh pembelajaran *Discovery* *Learning*, kelompok ekspermen 2 menggunakan model pembelajaran *Problem Based Learning* sedangkan kelompok kontrol melakukan pembelajaran konvensional. Instrumen yang digunakan dalam penelitian ini adalah tes kemampuan penalaran dan komunikasi matematis siswa. Berdasarkan analisis data diperoleh hasil bahwa terdapat perbedaan peningkatan kemampuan komunikasi matematis antara siswa yang menggunakan model pembelajaan *Discovery* *Learning,* *Problem Based Learning* dan konvensional. Siswa yang menggunakan model pembelajaran *Problem Based Learning* mempunyai kemampuan komunikasi paling tinggi dibandingkan dengan yang menggunakan model pembelajaran *Discovery* *Learning* dan konvensional.

Key words: Kemampuan Penalaran, Kemampuan Komunikasi, *Discovery*

*Learning*, *Problem Based Learning*

**ABSTRACT**

Yuli Endang Susilawati. (2015). The increasing of the ability of mathematic reasioning and communication of yunior high school students by using learning model *Discovery* *Learning* and *Problem Based Learning*. UNPAS. Bandung.

The aim of the research are to know the comparison students ability of mathematic reasioning and communication by using learning model Discovery Learning and Problem Based Learning and to comparison who have more influence students ability of mathematic reasioning and communication by using learning model Discovery Learning and Problem Based Learning . The research design was static group pre test-post test designts. The population was the VIII grade students of Margahayu Yunior High School. The sample were the students of VIII E, VIII F, and VIII G that each class consist of 30 students. In this research the first experimental group has been treated by using Discovery Learning, the second experimental group has been treated by using Problem Based Learning and control group has been treated by using konvensional learning model. The test instrument used was the ability of mathematic reasioning and communication. Based on the data analysis, the result there are diferentces students ability of mathematic communication by using learning model Discovery Learning, Problem Based Learning and Konvensional. Students ability mathematic communication in class used Problem Based Learning more higher than classes used Discovery learning and Konvensional.

Key words: The student ability of mathematic reasonning, The student ability of mathematic communication, Problem Based Learning, Discovery Learning.