ABSTRAK

NUR TRI JULIA. Perbedaan Kemampuan Penalaran Matematis dan *Self-Regulated Learning* Siswa Antara Model Pembelajaran Berbasis Masalah dan Penemuan Terbimbing di SMAN 1 Binjai Kabupaten Langkat. Tesis. Medan: Program Studi Pendidikan Matematika Pasca Sarjana Universitas Negeri Medan, 2016.

Penelitian ini bertujuan untuk mengetahui: (1) Perbedaan kemampuan penalaran matematis antara siswa yang diajar dengan pembelajaran berbasis masalah dan siswa yang diajar dengan pembelajaran penemuan terbimbing, (2) Perbedaan *self-regulated learning* antara siswa yang diajar dengan pembelajaran berbasis masalah dan siswa yang diajar dengan pembelajaran penemuan terbimbing, (3) Interaksi antara model pembelajaran dan kemampuan awal matematika terhadap kemampuan penalaran matematis siswa, (4) Interaksi antara model pembelajaran dan kemampuan awal matematika terhadap *self-regulated learning* siswa. Populasi penelitian adalah seluruh siswa SMAN 1 Binjai Kabupaten Langkat. Sampel penelitian adalah kelas X diambil secara acak sebanyak 2 kelas berjumlah 72 orang siswa. Analisis data dilakukan dengan Uji ANAVA Dua Jalur. Hasil penelitian menunjukkan bahwa (1) Terdapat perbedaan kemampuan penalaran matematis antara siswa yang diajar dengan pembelajaran berbasis masalah dan siswa yang diajar dengan pembelajaran penemuan terbimbing, (2) Terdapat perbedaan *self-regulated learning* antara siswa yang diajar dengan pembelajaran berbasis masalah dan siswa yang diajar dengan pembelajaran penemuan terbimbing, (3) Tidak terdapat interaksi antara model pembelajaran dan kemampuan awal matematika terhadap kemampuan penalaran matematis siswa, (4) Tidak terdapat interaksi antara model pembelajaran dan kemampuan awal matematika terhadap *self-regulated learning* siswa.

Kata Kunci: Pembelajaran Berbasis Masalah, Pembelajaran Penemuan Terbimbing, Penalaran Matematis, dan *Self-Regulated Learning*

ABSTRACT

NUR TRI JULIA. The Difference of Students' Mathematical Reasoning Ability and Self-Regulated Learning Between Problem-Based Learning Model and Guided Discovery Learning In SMA Negeri 1 Binjai Kabupaten Langkat. Thesis. Medan: Mathematics Education Study Program Post Graduate State University of Medan, 2016.

The aims of this study were to determine: (1) The difference of mathematical reasoning ability between students taught by problem-based learning and students taught by guided discovery learning, (2) The difference of self-regulated learning between students taught by problem-based learning and students taught by guided discovery learning, (3) The interaction between the learning model and the students' previous mathematics ability toward students' mathematical reasoning ability, (4) The interaction between the learning model and the students' previous mathematics ability toward students' self-regulated learning. The population was all of students of the State Senior High School 1 Binjai Kabupaten Langkat. Samples were two classes of grade X randomly selected consisted of 72 students. The data were analysed by Two Way ANAVA. The result showed that: (1) There was difference of mathematical reasoning ability between students taught by problem-based learning and students taught by guided discovery learning, (2) There was difference of self-regulated learning between students taught by problem-based learning and students taught by guided discovery learning, (3) There is no interaction between the learning model and the students' previous mathematics ability toward students' mathematical reasoning ability, (4) There is no interaction between the learning model and the students' previous mathematics ability toward students' self-regulated learning.

Keywords: Problem-Based Learning Model, Guided Discovery Learning, Mathematical Reasoning, and Self-Regulated Learning