ABSTRAK

HANIFAN NURSYAH FITRI SIREGAR. Perbedaan Peningkatan Kemampuan Berpikir Kreatif Matematika dan Kedisiplinan Belajar Melalui *Problem Based Learning* dan *Think Pair Share* Berbantuan Matlab. Tesis: Program Pascasarjana Universitas Negeri Medan, 2019.

Penelitian ini bertujuan untuk menganalisis: (1) Apakah terdapat perbedaan peningkatan kemampuan berpikir kreatif matematika antara siswa yang diberi model *Problem Based Learning* (PBL) lebih tinggi dari siswa yang diberi model *Think Pair Share* (TPS) Berbantuan Matlab, (2) Apakah terdapat perbedaan kedisiplinan belajar matematika antara siswa yang diberi model *Problem Based Learning* (PBL) lebih tinggi dari siswa yang diberi model *Think Pair Share* (TPS) di Berbantuan Matlab, (3) Apakah terdapat perbedaan proses penyelesaian jawaban siswa saat menyelesaikan soal-soal kemampuan berpikir kreatif matematika setelah memperoleh model *Problem Based Learning* (PBL) lebih tinggi dari siswa yang diberi model *Think Pair Share* (TPS) Berbantuan Matlab. Populasi penelitian ini adalah siswa kelas XI SMA Swasta Eria Medan. Sampel penelitian diambil secara acak sehingga diperoleh dua kelas sampel. Kelas Eksperimen I diberikan pembelajaran *Problem Based Learning* (PBL) dan kelas eksperimen II diberikan pembelajaran *Think Pair Share* (TPS). Instrumen yang digunakan terdiri dari: Tes kemampuan Berpikir Kreatif Matematika dan angket kedisiplinan belajar siswa. Analisis data dilakukan dengan Analisis Kovarian (ANACOVA) dan N-Gain. Hasil penelitian menunjukkan bahwa (1) Terdapat perbedaan peningkatan kemampuan berpikir kreatif matematika antara siswa yang diberi model *Problem Based Learning* (PBL) lebih tinggi dari siswa yang diberi model *Think Pair Share* (TPS) Berbantuan Matlab, (2) Terdapat perbedaan kedisiplinan belajar matematika antara siswa yang diberi model *Problem Based Learning* (PBL) lebih tinggi dari siswa yang diberi model *Think Pair Share* (TPS) di Berbantuan Matlab, (3) Terdapat perbedaan proses penyelesaian jawaban siswa saat menyelesaikan soal-soal kemampuan berpikir kreatif matematika setelah memperoleh model *Problem Based Learning* (PBL) lebih tinggi dari siswa yang diberi model *Think Pair Share* (TPS) Berbantuan Matlab. Berdasarkan hasil penelitian, maka peneliti menyarankan model *Problem Based Learning* (PBL) pada pembelajaran matematika dapat dijadikan sebagai salah satu alternative dalam pembelajaran matematika yang inovatif.

ABSTRACT

HANIFAN NURSYAH FITRI SIREGAR. Differences in Increasing Mathematical Creative Thinking Ability and Discipline of Learning Through Problem Based Learning and Think Pair Share Assisted by Matlab. Thesis: Postgraduate Program Medan State University, 2019.

This study aims to analyze: (1) A difference in the increase in mathematical creative thinking skills between students given a higher Problem Based Learning (PBL) model than students given Matlab Assisted Think Pair Share (TPS) models, (2) A difference discipline of learning mathematics between students who were given a Problem Based Learning (PBL) model higher than students given a Think Pair Share (TPS) model in Matlab Assisted, (3) A difference in the process of solving students' answers when solving mathematical creative thinking skills after obtaining a higher Problem Based Learning (PBL) model than students given Matlab Assisted Think Pair Share (TPS) models

The population of this study was the eleventh grade students of Eria Private High School Medan. The research sample was taken randomly to obtain two sample classes. Experimental Class I was given Problem Based Learning (PBL) and experimental class II was given Think Pair Share (TPS) learning. The instruments used consisted of: Test of Mathematical Creative Thinking ability and questionnaire on student learning discipline. Data analysis was carried out by Analysis of Covariance (ANACOVA) and N-Gain. The results showed that (1) There were differences in the increase in mathematical creative thinking skills between students who were given a Problem Based Learning (PBL) model higher than students given the Matlab Assisted Think Pair Share (TPS) model, (2) There were differences in the discipline of mathematics learning between students who were given a Problem Based Learning (PBL) model were higher than students who were given Think Pair Share (TPS) models in Matlab Assisted, (3) There were differences in the process of solving students' answers when solving mathematical creative thinking skills problems after obtaining a Problem Based model. Learning (PBL) is higher than students given the Think Pair Share (TPS) model Assisted by Matlab. Based on the results of the study, the researcher suggests the Problem Based Learning (PBL) model in mathematics learning can be used as an alternative in innovative mathematics learning.