

ABSTRAK

AMELIA SIDABUTAR. Analisis Perbedaan Kemampuan Representasi Matematis dan *Self-Efficacy* Siswa yang Diberi Model Pembelajaran PBL dengan MMP di SMA Negeri 2 Bagan Sinembah. Tesis. Medan: Program Studi Pendidikan Matematika Pascasarjana Universitas Negeri Medan, 2022

Tujuan dari penelitian ini adalah untuk: (1) menganalisis perbedaan kemampuan representasi matematis siswa yang diberi model pembelajaran *problem based learning* dengan siswa yang diberi model pembelajaran *missouri mathematics project*, (2) menganalisis perbedaan *self-efficacy* siswa yang diberi model pembelajaran *problem based learning* dengan siswa yang diberi model pembelajaran *missouri mathematics project*, (3) menganalisis interaksi antara model pembelajaran dengan kemampuan awal matematika terhadap kemampuan representasi matematis siswa, (4) menganalisis interaksi antara model pembelajaran dengan kemampuan awal matematika terhadap *self-efficacy* siswa. Penelitian ini merupakan penelitian eksperimen semu. Populasi penelitian ini adalah seluruh siswa kelas X SMA Negeri 2 Bagan Sinembah dan sampel penelitian ini adalah siswa kelas X-1 dan X-3, masing-masing berjumlah 30 siswa. Instrumen yang digunakan terdiri dari tes kemampuan representasi matematis dan angket *self-efficacy* siswa. Analisis data dilakukan dengan ANAVA dua jalur. Hasil penelitian menunjukkan bahwa (1) Terdapat perbedaan kemampuan representasi matematis siswa yang diberi model pembelajaran *problem based learning* dengan siswa yang diberi model pembelajaran *missouri mathematics project*. Hal ini terlihat dari hasil ANAVA dua jalur dimana diperoleh nilai $F_{hitung} = 97,685 > F_{tabel} = 4,02$. (2) Terdapat perbedaan *self-efficacy* siswa yang diberi model pembelajaran *problem based learning* dengan siswa yang diberi model pembelajaran *missouri mathematics project*. Hal ini terlihat dari hasil ANAVA dua jalur dimana diperoleh nilai $F_{hitung} = 5,470 > F_{tabel} = 4,02$. (3) Tidak terdapat interaksi antara model pembelajaran dengan kemampuan awal matematika terhadap kemampuan representasi matematis siswa, dan (4) Tidak terdapat interaksi antara model pembelajaran dengan kemampuan awal matematika terhadap *self-efficacy* siswa.

Kata Kunci : *Problem Based Learning, Missouri Mathematics Project, Kemampuan Representasi Matematis, dan Self-Efficacy.*

ABSTRACT

AMELIA SIDABUTAR. *Analysis of Differences in Mathematical Representation Ability and Self-Efficacy of Students Given the PBL Model with MMP at SMA Negeri 2 Bagan Sinembah.* A Thesis. Medan: Postgraduate Program, State University of Medan, 2022.

The purpose of this study is to: (1) analyze the difference in the mathematical representation ability of students who are given the *problem based learning* and students who are given the *missouri mathematics project*, (2) analyze the difference in *self-efficacy* of students who are given the *problem based learning* model and students who are given the *missouri mathematics project*, (3) analyze the interaction between the learning model and the initial mathematical ability of students' mathematical representation abilities, (4) analyze the interaction between the learning model and the initial ability of mathematics on *self-efficacy* students. This research is a quasi-experimental research. The population of this study were all students of class X SMA Negeri 2 Bagan Sinembah and the sample of this study were students of class X-1 and X-3, each totaling 30 students. The instrument used consisted of a mathematical representation ability test and a *self-efficacy* student. Data analysis was performed using two-way ANOVA. The results of the study show that (1) There are differences in the mathematical representation ability of students who are given a *problem based learning* and students who are given a *missouri mathematics project*. This can be seen from the results of two-way ANOVA where the $F_{hitung} = 97,685 > F_{tabel} = 4,02$ value is obtained. (2) There are differences *self-efficacy* of students who are given the *problem based learning* model and students who are given the *missouri mathematics project*. This can be seen from the results of two-way ANOVA where the $F_{hitung} = 5,470 > F_{tabel} = 4,02$ value is obtained. (3) There is no interaction between the learning model and the initial mathematical ability of the students' mathematical representation ability, and (4) There is no interaction between the learning model and the initial ability of mathematics on *self-efficacy* students.

Keywords : *Problem Based Learning, Missouri Mathematics Project, Mathematical Representation Ability, and Self-Efficacy.*