ABSTRAK

SITY SYAFRIYANY LUBIS. Pengaruh Model *Problem Solving* Terhadap Kemampuan Koneksi Matematis dan *Self-Efficac*y Pada Siswa SMP Negeri 5 Tebing Tinggi. Tesis.Medan : Program Studi Pendidikan Matematika Pasca Sarjana Universitas Negeri Medan. 2020

Penelitian ini bertujuan untuk mengetahui pengaruh model problem solving terhadap kemampuan koneksi matematis dan self-efficacy. Jenis penelitian ini merupakan penelitian *quasi eksperimen*. Instrumen yang digunakan terdiri dari tes kemampuan koneksi matematis, angket *self-efficacy*, lembar aktivitas siswa, dan kemampuan awal matematis. Sample penelitian ini adalah siswa kelas VII-1 dan VII-2 di SMP Negeri 5 Tebing Tinggi. Instrumen penelitian ini berupa tes kemampuan koneksi matematis sebanyak 4 butir soal uraian dan angket self-efficacy pada siswa sebanyak 23 pernyataan dengan 4 alternatif jawaban. Jadi, dapat disimpulkan bahwa terdapat pengaruh model problem solving terhadap kemampuan koneksi matematis siswa. Dapat diperoleh nilai $F_{0(B)}$ sebesar 19.81, jika nilai $F_{0(B)}$ ini dikonfirmasi kepada nilai F_{tabel} pada $\alpha = 5\%$, maka $F_{0(B)}$ lebih besar dari F_{tabel} (19.81 > 4,006). Disimpulkan cukup bukti untuk menolak H_0. Ini berarti bahwa terdapat pengaruh model pembelajaran terhadap self-efficacy matematis siswa. Selanjutnya diperoleh nilai $F_{0(A)}$ sebesar 11.798, jika nilai $F_{0(A)}$ ini dikonfirmasi kepada nilai F_{tabel} pada $\alpha = 5\%$, maka $F_{0(A)}$ lebih besar dari F_{tabel} (11.798 > 4,006). Disimpulkan cukup bukti untuk menolak H_0. Ini berarti bahwa terdapat pengaruh KAM terhadap self-efficacy matematis siswa. Berdasarkan hasil perhitungan diperoleh bahwa nilai signifikansi KAM*Pembelajaran terhadap kemampuan koneksi matematis siswa adalah sebesar 0,4280, lebih besar dari taraf signifikansi yang telah ditentukan, yaitu, 0,05 (0,4280 > 0,05), yang berarti adalah terima H_0. Dengan kata lain tidak terdapat interaksi yang signifikan antara model pembelajaran dan kemampuan awal matematis terhadap kemampuan koneksi matematis siswa. Begitu juga dengan *self-efficacy* siswa, hasil analisis data yang diperoleh untuk nilai signifikansi KAM*Pembelajaran terhadap *self-efficacy* siswa adalah sebesar 0,4801, lebih besar dari 0,05 (0, 4801 > 0,05), sehingga H_0 diterima yang berarti tidak terdapat interaksi yang signifikan antara model pembelajaran dan kemampuan awal matematis terhadap *self-efficacy* siswa.

Kata Kunci: : Model Problem solving, Kemampuan Koneksi Matematis siswa, Self-Efficacy.

ABSTRACT

SITY SYAFRIYANY LUBIS. *The Effect of Problem Solving Model on Mathematical Connection and Self-Efficacy of Students at* **SMP Negeri 5 Tebing Tinggi**. Thesis.Medan: Postgraduate Mathematics Education Study Program, Medan State University. 2020.

This study aims to determine the effect of problem solving models on the ability of mathematical connections and self-efficacy. This type of research is a quasi-experimental study. The instrument used consisted of tests of mathematical connection ability, self-efficacy questionnaires, student activity sheets, and mathematical initial abilities. The sample of this study was students in grades VII-1 and VII-2 in SMP Negeri 5 Tebing Tinggi. The instrument of this research was in the form of a mathematical connection ability test of 4 items in the description and self-efficacy questionnaire in students of 23 statements with 4 alternative answers. So, it can be concluded that there is an effect of problem solving models on students' mathematical connection abilities. Can be obtained a value of $F_{0(B)}$ of 19.81, if the value of $F_{0(B)}$ is confirmed to the value of F table at $\alpha = 5\%$, then $F_{0(B)}$ is greater than F_{tabel} (19.81> 4.006). It was concluded that enough evidence to reject H_0. This means that there is an influence of learning models on students' mathematical self-efficacy. Furthermore, a $F_{0(A)}$ value of 11,798 is obtained, if the value of $F_{0(A)}$ is confirmed to the value of F_{tabel} at $\alpha = 5\%$, then $F_{0(A)}$ is greater than F_{tabel} (11,798> 4,006). It was concluded that enough evidence to reject H_0. This means that there is an influence of KAM on students' mathematical self-efficacy. Based on the calculation results obtained that the significance value of KAM * Learning on the ability of students' mathematical connections is equal to 0.4280, greater than the level of significance that has been determined, namely, 0.05 (0.4280> 0.05), which means that is accept H_0 . In other words there is no significant interaction between the learning model and the initial mathematical ability of students' mathematical connection abilities. Likewise with student self-efficacy, the results of data analysis obtained for the KAM significance value * Learning towards students' self-efficacy is 0.4801, greater than 0.05 (0, 4801> 0.05), so H_0 is accepted which it means that there is no significant interaction between learning models and mathematical initial abilities of students' self-efficacy.

Keywords: Problem solving model, mathematical connection ability, self-efficacy.