ABSTRAK

Muhammad Febri Rafli. 8166181016. Pengaruh Model *Problem Based Learning* dan Kemampuan Awal Matematika Terhadap Kemampuan Komunikasi Matematis Dan *Self-Confidence* Siswa Di SMP Negeri 2 Tanjung Pura. Program Pascasarjana Universitas Negeri Medan 2018.

Penelitian ini bertujuan untuk mengetahui: (1) pengaruh model *problem based learning* terhadap kemampuan komunikasi matematis siswa, (2) pengaruh model *problem based learning* terhadap *self-confidence* siswa, (3) interaksi antara model pembelajaran (*problem based learning* dan biasa) dan kemampuan awal matematika siswa terhadap kemampuan komunikasi matematis siswa, dan (4) interaksi antara model pembelajaran (*problem based learning* dan biasa) dan kemampuan awal matematika siswa terhadap *self-confidence* siswa. Penelitian ini merupakan penelitian eksperimen semu (*quasi experiment*). Populasi dalam penelitian ini adalah seluruh siswa kelas VIII SMP Negeri 2 Tanjung Pura Tahun Ajaran 2017/2018 yang terdiri atas enam kelas. Sampel dipilih secara *cluster random sampling* sebanyak dua kelas. Kelas yang dipilih yaitu VIII-2 sebagai kelas eksperimen (31 siswa) dan VIII-1 sebagai kelas kontrol (32 siswa). Instrumen yang digunakan yaitu tes kemampuan komunikasi matematis berjumlah 4 soal essay, tes kemampuan awal matematika berjumlah 6 soal essay, angket *self-confidence* berjumlah 33 pernyataan. Data yang diperoleh dari instrumen penelitian dianalisis menggunakan anava dua arah melalui program SPSS. Hasil penelitian menunjukkan bahwa: (1) terdapat pengaruh signifikan *model problem based learning* terhadap kemampuan komunikasi matematis siswa (p-value = 0,010 < 0,05), (2) terdapat pengaruh yang signifikan model *problem based learning* terhadap *self-confidence* siswa (p-value = 0,028 < 0,05), (3) terdapat interaksi antara model pembelajaran (*problem based learning* dan biasa) dan kemampuan awal matematika siswa terhadap kemampuan komunikasi matematis siswa (p-value = 0,044 < 0,05), dan (4) terdapat interaksi antara model pembelajaran (*problem based learning* dan biasa) dan kemampuan awal matematika siswa terhadap *self-confidence* siswa (p-value = 0,035 < 0,05).

Kata Kunci : *Problem Based Learning*, Kemampuan Komunikasi Matematis, *Self-Confidence*, Kemampuan Awal Matematika

ABSTRACT

Muhammad Febri Rafli. 8166181016. The Effect of Problem Based Learning Model and Early Math Ability on Mathematical Communication Skills and Students' Self-Confidence in SMP Negeri 2 Tanjung Pura. Postgraduate, State University of Medan 2018.

The purpose of this study is to determine: (1) the effect of problem based learning model on students 'mathematical communication ability, (2) the effect of problem based learning model on student self-confidence, (3) the interaction between the learning model (problem based learning and conventional) and the student's early mathematical ability toward students' mathematical communication ability , and (4) the interaction between learning model (problem based learning and conventional) and student's early math ability to student self-confidence. This research is quasi experiment of population in this research is all students of class VIII SMP Negeri 2 Tanjung Pura Academic Year 2017/2018 which consist of six classes. The sample was chosen by cluster random sampling of two classes. The selected classes are VIII-2 as the experimental class (31 students) and VIII-1 as the control class (32 students). The instruments used are mathematical communication ability test with 4 essay question,early math skill test with 6 essay question, self-confidence questionnaire with 33 statement. Data obtained from research instruments were analyzed using two-way anava through SPSS program. The results of this research have shown that: (1) there are significant effect of problem based learning model on students' mathematical communication ability (p-value = 0,010 < 0,05), (2) there is significant effect of problem based learning model on self-confidence of students (p-value = 0,028 < 0,05), (3) there is interaction between learning model (problem based learning and conventional) and student's early math ability to students' mathematical communication ability (p-value = 0,044 < 0,05), and (4) there is interaction between learning model (problem based learning and conventional) and student's early math ability to student self-confidence (p-value = 0,035 < 0,05).

Keywords : Problem Based Learning, Mathematical Communication Skill, Self-Confidence, Early Math Ability