PENINGKATAN KEMAMPUAN PEMAHAMAN MATEMATIS DAN *SELF-EFFICACY* SISWA MELALUI PENERAPAN *DISCOVERY BASED LEARNING*

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ABSTRAK

Penelitian ini bertujuan untuk menyelidiki peningkatan kemampuan pemahaman matematis dan *self-efficacy* siswa melalui penerapan *discovery based learning*. Penelitian ini menggunakan metode kuasi eksperimen dengan *non-equivalent pretest-posttest control group desain.* Subjek penelitian ini adalah siswa kelas VII di salah satu Sekolah Menengah Pertama Negeri di Bandung Barat pada semester genap tahun pelajaran 2016/2017, terdiri dari 26 siswa yang memperoleh pembelajaran matematika dengan *discovery based learning* dan 30 siswa yang memperoleh pembelajaran matematika dengan ekspositori. Intrumen yang digunakan terdiri dari instrument tes kemampuan pemahaman matematis, instrument skala *self-efficacy,* dan lembar observasi. Dari hasil penelitian, diperoleh beberapa kesimpulan, yaitu: (1) hasil uji Mann-Whitney U menunjukkan bahwa tidak terdapat perbedaan yang signifikan antara peningkatan kemampuan pemahaman matematis dan *self-efficacy* siswa yang memperoleh pembelajaran dengan *discovery based learning* dan yang memperoleh pembelajaran dengan ekspositori, (2) peningkatan kemampuan pemahaman matematis dan *self-efficacy* siswa terjadi pada semua indikator dengan kategori rendah, (3) rerata nilai *posttest* dan *n-gain* kemampuan pemahaman matematis siswa yang memperoleh pembelajaran dengan dengan *discovery based learning* lebih rendah daripada yang memperoleh pembelajaran dengan ekspositori, (4) rerata nilai *pre-sefl-efficacy* dan *post-self-efficacy* siswa yang memperoleh pembelajaran dengan *discovery based learning* lebih tinggi daripada yang memperoleh pembelajarn dengan ekspositori, (5) masih ada beberapa siswa yang mengalami penurunan *self-efficacy,* dan penurunan ini lebih banyak terjadi pada siswa yang memperoleh pembelajaran dengan *discovery based learning. Discovery based learning* yang diterapkan dalam penelitian ini belum memberikan pengaruh yang signifikan terhadap peningkatan kemampuan pemahaman matematis dan *self-efficacy* siswa.

Kata Kunci: Pemahaman matematis, *self-efficacy, discovery based learning,* pembelajaran ekspositori.

THE ENHANCEMENT OF STUDENTS' MATHEMATICAL UNDERSTANDING AND SELF-EFFICACY THROUGH THE *DISCOVERY BASED LEARNING*

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ABSTRACT

This aim of this research was to investigate the enhancement of students' mathematical understanding and self-efficacy through teaching used discovery based learning. This research used a quasi experimental method with non-equivalent pretest-posttest control group design. The subjects of this research were students of seventh graders in West Bandung in the second semester of the academic year 2016/2017, consist of 26 students who learn math under discovery based learning and 30 students who learn math under expository learning. Data collection Instruments consist of mathematical understanding test instrument, self-efficacy scale instrument, and observation sheets. Based on the results of research, some conclusions of this research: (1) Mann-Whitney U test results show that there is not a significant difference between mathematical understanding and self-efficacy enhancement of students who learned math under discovery based learning and students who learned math under expository learning. (2) the enhancement of students' mathematical understanding and self-efficacy occur in all indicators with low category, (3) the mean of posttest and n-gain value of mathematical understanding of students who studied math under discovery based learning is lower than who studied math under expository learning, (4) the mean of pre-self-efficacy and post-self-efficacy value of students who studied math under discovery based learning is higher than who studied math under expository learning, and (5) there are some students who experience a decrease in self-efficacy, and this decrease is more common in students who studied math under discovery based learning than students who studied under expository learning. Discovery based learning applied in this research has not gave significant influence to the enhancement of students' mathematical understanding and self-efficacy.

Keywords: Mathematical understanding, self-efficacy, discovery based learning, expository learning.