

ABSTRAK

Nita Handayani (2016). Peningkatan Kemampuan Penalaran dan Komunikasi Matematis serta *Self-Efficacy* Siswa SMP Melalui Model *Situation-Based Learning*

Penelitian ini bertujuan untuk mengkaji peningkatan kemampuan penalaran matematis (KPM) dan kemampuan komunikasi matematis (KKM) serta perbedaan *self-efficacy* matematis (SEM) siswa SMP yang memperoleh pembelajaran model *situation-based learning* (SBL) dan siswa yang memperoleh pembelajaran biasa (PB) ditinjau dari keseluruhan siswa dan berdasarkan kategori kemampuan awal matematis (KAM) yaitu KAM tinggi, sedang, dan rendah. Penelitian ini menggunakan metode kuasi eksperimen dengan desain perbandingan kelompok kontrol pretes-postes. Populasi penelitian ini adalah seluruh siswa kelas VIII salah satu SMP Negeri di Kota Bandung. Pengambilan sampel pada penelitian ini menggunakan teknik *purposive sampling* sehingga terpilih 37 orang siswa sebagai siswa yang memperoleh pembelajaran model SBL dan 34 orang siswa yang memperoleh PB. Instrumen penelitian terdiri dari tes KPM dan KKM serta angket SEM siswa. Analisis data dengan uji *t* dan *Mann Whitney U* untuk melihat peningkatan KPM dan KKM serta melihat perbedaan SEM siswa. Hasil penelitian menunjukkan bahwa: (1) secara keseluruhan maupun berdasarkan kategori KAM (tinggi, sedang, dan rendah), peningkatan KPM siswa yang memperoleh pembelajaran model SBL lebih tinggi secara signifikan daripada siswa yang memperoleh PB; (2) secara keseluruhan maupun berdasarkan kategori KAM tinggi dan KAM sedang, peningkatan KKM siswa yang memperoleh pembelajaran model SBL lebih tinggi secara signifikan daripada siswa yang memperoleh PB sedangkan berdasarkan KAM rendah, tidak terdapat perbedaan peningkatan KKM kedua kelas; dan (3) secara keseluruhan maupun berdasarkan kategori KAM sedang dan KAM rendah, tidak ada perbedaan SEM antara kedua kelas, sedangkan berdasarkan kategori KAM tinggi, perbedaan SEM siswa yang memperoleh pembelajaran SBL lebih baik daripada siswa yang memperoleh PB.

Kata Kunci: Penalaran Matematis, Komunikasi Matematis, *Self-Efficacy* Matematis, Model *Situation-Based Learning*

ABSTRACT

Nita Handayani (2016). The Enhancement Ability of Junior High School Students' Mathematical Reasoning, Mathematical Communication and Self-Efficacy Through the Situation-Based Learning Model

This research aims to study the enhancement of mathematical reasoning (KPM), mathematical communication (KKM), and to know mathematical self-efficacy (SEM) of junior high school students who was taught by situation-based learning model (SBL) and students who was taught by usual learning (PB) which were reviewed from all students and based on clasified of student prior abilities (KAM) are high, medium, and low. This research used a quasi experimental design with pretest-posttest control group. The research's population are the grade 8th students at one of state junior high school at Bandung City. Samples were taken by purposive sampling technique that was selected 37 students was given SBL model and the other 34 students was given PB. Research istruments were test of KPM and KKM, also SEM questionnare. Data were analyzed by *t* test and *Mann Whitney U* to see enhancement KPM, KKM, and SEM students'. The research results were: (1) based of all students and KAM (high, medium, and low) categories, enhancement of KPM students who was taught by situation-based learning model (SBL) is higher than the students who was taught by the usual learning (PB); (2) based of all students and KAM (high and medium) categories, enhancement of KKM students who was taught by situation-based learning model (SBL) is higher than the students who was taught by the usual learning (PB), whereas based of low KAM categories, there are no significantly difference enhancement of KKM students between two classes; and (3) based of all students and KAM (medium and low) categories, no significantly difference achievement SEM students between two classes; whereas based of high KAM categories, difference achievement SEM who was taught by situation-based learning model (SBL) better than the students who was taught by the usual learning (PB).

Keyword: Mathematical Reasoning, Mathematical Communication, Self-Efficacy, Situation-Based Learning Model