

ABSTRAK

Yeni Yuniarti (2017). Pembelajaran Analitik-Sintetik berbasis *Open-Ended Problems* untuk Meningkatkan Kemampuan Representasi Multipel, Berpikir Kreatif Matematis, dan *Self-Concept* Mahasiswa Calon Guru Sekolah Dasar.

Penelitian ini bertujuan untuk meningkatkan pencapaian dan peningkatan kemampuan representasi multipel matematis, kemampuan berpikir kreatif matematis, dan *self-concept* mahasiswa calon guru Sekolah Dasar (SD) yang memperoleh pembelajaran Analitik-Sintetik berbasis *Open-Ended Problems* dan yang memperoleh pembelajaran Konvensional. Penelitian ini adalah penelitian kuasi eksperimen dengan *pretest-posttest control group design* terhadap mahasiswa calon guru SD suatu Perguruan Tinggi Negeri di Jawa Barat yang mengambil mata kuliah Pendidikan Matematika II dengan jumlah sampel 136 mahasiswa. Instrumen yang digunakan adalah tes kemampuan awal matematis (KAM), tes kemampuan representasi multipel matematis, tes kemampuan berpikir kreatif matematis, skala *self-concept*, lembar observasi, dan pedoman wawancara. Dari hasil analisis data yang menggunakan statistik parametrik dan non-parametrik dapat disimpulkan bahwa: 1) Pencapaian dan peningkatan kemampuan representasi multipel matematis dan kemampuan berpikir kreatif matematis mahasiswa yang memperoleh pembelajaran analitik-sintetik berbasis *open-ended problems* lebih baik daripada mahasiswa yang memperoleh pembelajaran konvensional ditinjau secara keseluruhan maupun dari tiap kelompok kemampuan awal matematis (KAM); 2) Pencapaian dan peningkatan *self-concept* mahasiswa yang memperoleh pembelajaran analitik-sintetik berbasis *open-ended problems* lebih baik daripada mahasiswa yang memperoleh pembelajaran konvensional ditinjau secara keseluruhan maupun dari tiap kelompok kemampuan awal matematis (KAM); 3) Tidak terdapat interaksi antara faktor pembelajaran dan kemampuan awal matematis (KAM) mahasiswa terhadap pencapaian dan peningkatan kemampuan representasi multipel matematis dan *self-concept* mahasiswa; dan 4) Terdapat interaksi antara faktor pembelajaran dan kemampuan awal matematis (KAM) mahasiswa terhadap pencapaian dan peningkatan kemampuan berpikir kreatif matematis mahasiswa.

Kata kunci: pembelajaran analitik-sintetik, *open-ended problems*, kemampuan representasi multipel matematis, kemampuan berpikir kreatif, dan *self-concept*

Yeni Yuniarti, 2017

PEMBELAJARAN ANALITIK-SINETIK BERBASIS OPEN-ENDED PROBLEMS UNTUK MENINGKATKAN KEMAMPUAN REPRESENTASI MULTIPLEL, BERPIKIR KREATIF MATEMATIS, DAN SELF-CONCEPT MAHASISWA CALON GURU SEKOLAH DASAR

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ABSTRACT

Yeni Yuniarti (2017). Open-Ended Problems based Analytic-Synthetic Learning to Improve Multiple Representation Ability, Mathematical Creative Thinking Ability, and Self-Concept of Elementary School Prospective Teachers.

This study aimed to improve the achievement and enhancement of mathematical multiple representations ability, mathematical creative thinking ability, and self-concept of Elementary School Prospective Teachers who received Open-Ended Problems based Analytic-Synthetic Learning and Conventional learning. This study is a quasi-experimental research with pretest-posttest control group design to Elementary School Prospective Teachers in a state university of West Java who took Pendidikan Matematika II with a sample of 136 students. The instruments used in this research are mathematical prior ability test, mathematical multiple representations ability tests, mathematical creative thinking ability tests, self-concept scale, observation sheet, and interview guidance. The results of data analysis using statistic of parametric and non-parametric shows that: 1) The Achievement and enhancement mathematical multiple representations ability and mathematical creative thinking ability of students who received open-ended problems based learning analytic-synthetic better than those conventional learning is reviewed whole and each group mathematical prior ability as well; 2) Achievement and enhancement self-concept students who received open-ended problems based analytic-synthetic learning better than those conventional learning are reviewed as a whole and each group of mathematical prior ability as well; 3) There is no interaction between learning and mathematical prior ability students factors on the achievement and enhancement of mathematical multiple representations ability and student self-concept; and 4) There is interaction between learning and mathematical prior ability of student factor on the achievement and enhancement of mathematical creative thinking abilities of students.

Keywords: analytic-synthetic learning, creative thinking skills, mathematical multiple representations ability, open-ended problems, and self-concept

Yeni Yuniarti, 2017

PEMBELAJARAN ANALITIK-SINTETIK BERBASIS OPEN-ENDED PROBLEMS UNTUK MENINGKATKAN KEMAMPUAN REPRESENTASI MULTIPLE, BERPIKIR KREATIF MATEMATIS, DAN SELF-CONCEPT MAHASISWA CALON GURU SEKOLAH DASAR

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