

ABSTRAK

Mustafa, A. N. (2014). “Upaya Meningkatkan Kemampuan Berpikir Kritis dan Kreatif serta *Self-Efficacy* dalam Pembelajaran Matematika melalui *Discovery Learning*”.

Penelitian ini bertujuan untuk menelaah pengaruh *Discovery Learning* terhadap kemampuan berpikir kritis dan kreatif matematis serta *self-efficacy* ditinjau dari keseluruhan, kemampuan awal, serta dimensi *self-efficacy*. Diungkap pula interaksi antara faktor pembelajaran dan kategori kemampuan siswa. Desain penelitian yang digunakan dalam penelitian eksperimen ini adalah kelompok kontrol pretes-postes. Instrumen yang digunakan berupa tes kemampuan berpikir kritis dan kreatif matematis, skala *self-efficacy*, pedoman observasi, dan pedoman wawancara. Populasi penelitian ini adalah seluruh siswa kelas VII SMP Negeri 2 Lembang dengan sampel penelitian dua kelas yang dipilih secara acak. Analisis kuantitatif dilakukan dengan menggunakan uji-t, ANOVA dua jalur, korelasi *Pearson*, dan koefisien kontingensi. Analisis kualitatif dilakukan dengan menelaah hasil skala *self-efficacy*, pedoman observasi, dan wawancara. Hasil penelitian menunjukkan bahwa ditinjau dari keseluruhan peningkatan kemampuan berpikir kritis matematis kelompok *Discovery Learning* lebih baik dibandingkan kelompok konvensional. Secara keseluruhan, peningkatan kemampuan berpikir kreatif matematis kelompok *Discovery Learning* lebih baik dibandingkan kelompok konvensional. Siswa dengan kategori atas dan bawah kelompok *Discovery Learning* memiliki peningkatan kemampuan yang lebih baik dibandingkan kelompok konvensional, baik ditinjau dari kemampuan berpikir kritis maupun kreatif matematis. Terdapat korelasi yang kuat antara peningkatan kemampuan berpikir kritis dengan kemampuan berpikir kreatif matematis. Tidak terdapat asosiasi *self-efficacy* dengan peningkatan kemampuan berpikir kritis maupun kreatif matematis. Tidak ada interaksi antara faktor pembelajaran dan kemampuan awal siswa terhadap peningkatan kemampuan berpikir kritis maupun kreatif matematis. Secara keseluruhan, *self-efficacy* kelompok *Discovery Learning* lebih baik daripada *self-efficacy* kelompok konvensional. Melalui dimensinya, *self-efficacy* dimensi *magnitude* kelompok *Discovery Learning* tidak lebih baik dibandingkan kelompok konvensional. Melalui kemampuan awal, *self-efficacy* siswa kategori atas kelompok *Discovery Learning* lebih baik dibandingkan dengan kelompok konvensional.

Kata Kunci: *Discovery Learning*, Kemampuan Berpikir Kritis Matematis, Kemampuan Berpikir Kreatif Matematis, dan *Self-Efficacy*

ABSTRACT

Mustafa, A. N. (2014). "Efforts to Improve Critical and Creative Thinking Ability and Self-Efficacy in Mathematics Learning through of Discovery Learning".

This study aimed to examine the influence of Discovery Learning on the ability to think critically and creatively mathematical and self-efficacy in terms of overall, prior knowledge, and dimensions of self-efficacy. Also revealed the interaction between the learning factor and category of abilities of students. The research design used in this experimental study was pretest-posttest control group. The instrument used in the form of a test's ability to think critically and creatively mathematical, self-efficacy scale, observation, and interview guides. The population of this study are all seventh grade students of SMP Negeri 2 Lembang with two research samples randomly selected classes. Quantitative analysis was performed using t-test, two-way ANOVA, Pearson correlation, and contingency coefficient. Qualitative analysis was performed by examining self-efficacy scale results, observation, and interviews. The results showed that in terms of overall, the increase in critical thinking skills mathematically of Discovery Learning group is better than the conventional group. Overall, the increased ability to think creatively mathematical of Discovery Learning group is better than the conventional group. Students with top and bottom categories of Discovery Learning group has an increased ability better than conventional group, both in terms of the ability to think critically and creatively mathematical. There is a strong correlation between the increase in critical thinking skills with the increase in creative thinking mathematically. There was no association of self-efficacy with increased ability to think critically and creatively mathematical. There is no interaction between factors of learning and students' initial ability to the increase in the ability to think critically and creatively mathematical. Overall, self-efficacy group of Discovery Learning is better than the conventional self-efficacy group. Through the dimensions, dimension magnitude of Discovery Learning group was no better than the conventional group. Through the initial ability, self-efficacy of top category student of Discovery Learning group is better than the conventional group.

Keywords: Discovery Learning, Critical Thinking Mathematically, Creative Thinking Mathematically, and Self-Efficacy