PERBANDINGAN KEMAMPUAN BERPIKIR KRITIS MATEMATIS SISWA YANG BELAJAR DENGAN MODEL *GENERATIVE LEARNING* DAN *CONNECTING, ORGANIZING, REFLECTING, EXTENDING* (CORE) DI SMA NEGERI 12 JAKARTA

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ABSTRAK

Kemampuan berpikir kritis matematis siswa masih belum berkembang secara optimal. Pembelajaran matematika di kelas guru lebih dominan memberikan rumus daripada meminta siswa untuk aktif menggali informasi sendiri. Hal ini mengakibatkan nilai ulangan akhir semester matematika yang membutuhkan kemampuan berpikir kritis masih rendah dengan persentase skor pada materi integral sebesar 30% di SMAN 12 Jakarta. Oleh karena itu, dibutuhkan model yang tepat untuk meningkatkan kemampuan berpikir kritis matematis. Model *generative learning* dan CORE adalah dua model pembelajaran yang mampu meningkatkan keterampilan berpikir kritis. Penelitian ini bertujuan untuk mengetahui apakah kemampuan berpikir kritis matematis siswa yang belajar menggunakan model *generative learning* lebih tinggi daripada siswa yang belajar dengan menggunakan model CORE. Metode penelitian yang digunakan adalah metode eksperimen semu yang dilakukan pada kelas XI SMA Negeri 12 Jakarta. Teknik pengambilan sampel menggunakan *purposive sampling* dan *cluster random sampling*. Kemampuan berpikir kritis matematis siswa diukur dengan tes yang dibuat sesuai indikator keterampilan berpikir kritis matematis pada materi integral sebanyak 5 soal yang telah melalui uji validitas dan reliabilitas. Kedua kelas eksperimen yang dipilih berasal dari populasi yang berdistribusi normal, memiliki varians homogen dan mempunyai kesamaan rata-rata. Berdasarkan hasil penelitian, kelas eksperimen I dengan model *generative learning* dan kelas eksperimen II dengan model CORE berdistribusi normal dan memiliki varians sama. Pengujian hipotesis dilakukan dengan uji-t dan taraf signifikansi $\alpha = 0,05$. Berdasarkan hasil perhitungan, diperoleh $t_{hitung} = 2,554$ dan $t_{tabel} = 1,667$ sehingga $t_{hitung} > t_{tabel}$, maka H_0 ditolak. Dengan demikian, dapat disimpulkan bahwa kemampuan berpikir kritis matematis siswa yang diajar dengan model *generative learning* lebih tinggi daripada siswa yang diajar dengan model CORE.

Kata kunci: *kemampuan berpikir kritis matematis, model generative learning, model pembelajaran CORE*

A COMPARISON BETWEEN GENERATIVE LEARNING MODEL AND CONNECTING, ORGANIZING, REFLECTING, EXTENDING (CORE) LEARNING MODEL: THE INFLUENCE ON STUDENTS' CRITICAL THINKING SKILL AT THE SMAN 12 JAKARTA

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ABSTRACT

Critical thinking skill of students are still not developing optimally. Learning mathematics in the classroom, the teacher provides more formulas than asking students to actively explore their own information. This results in a final semester mathematics test score that requires critical thinking skills is still low with a percentage score on integral material by 30% at SMAN 12 Jakarta. Therefore, it required the right model to improve mathematical critical thinking skills. Generative learning model and CORE are two sets of learning design that can develop learners' critical thinking skill. The objective of this study was to describe the differences in mathematical critical thinking skills of students who learn to use the generative learning and CORE models. Besides, this study also proposes to determine whether mathematical critical thinking abilities of students who learn to use the generative learning model are higher than students who learn using the CORE model. The research method applied is a quasi-experimental method carried out in class XI SMAN 12 Jakarta. The sampling technique in this study adopted purposive sampling and cluster random sampling. Students' mathematical critical thinking skills were measured by tests made according to indicators of mathematical critical thinking skills of the integral material as many as 5 questions that have been tested through validity and reliability. The two experimental classes selected came from populations that were normally distributed, had homogeneous variances and had similarities on average. Based on the results of the study, the experimental class I (generative learning model) and experimental class II (CORE model) were normally distributed and had the same variance. Hypothesis testing is done by using t-test statistics with a significance level $\alpha = 0.05$. Based on the results of calculations, obtained $t_{count} = 2.554$ dan $t_{table} = 1.667$ therefore $t_{count} > t_{table}$, then H_0 is rejected. Therefore, it can be concluded that the mathematical critical thinking skill of students taught with the generative learning model is higher than the students taught using the CORE model.

***Keywords**: critical thinking skill, generative learning model, CORE learning model*