

**PENGARUH PENERAPAN MODEL *GUIDED DISCOVERY LEARNING*
BERBANTUAN *GEOGEBRA* TERHADAP KEMAMPUAN PEMECAHAN
MASALAH TRANSFORMASI GEOMETRI PADA SISWA KELAS XI**

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ABSTRAK

Studi ini bertujuan untuk mengetahui bagaimana penerapan metodologi *Guided Discovery Learning* dengan *GeoGebra* memengaruhi kemampuan siswa kelas XI dalam memecahkan soal-soal transformasi geometri. Metode penelitian yang digunakan adalah kuasi eksperimen dengan desain *posttest-only control group*, di mana pengukuran dilakukan setelah perlakuan diberikan. Sebanyak 165 siswa kelas XI yang terbagi dalam lima kelas di SMAN 1 Muncar Kabupaten Banyuwangi di semester ganjil TA 2025/2026 menjadi populasi dalam penelitian ini. Dua kelas dipilih sebagai sampel penelitian dengan menggunakan teknik pengambilan sampel acak berkluster tanpa pengacakan individu: Kelas XI A, yang terdiri dari 32 siswa, menjadi kelompok eksperimen dan menerima pembelajaran penemuan terpandu yang didukung oleh *GeoGebra*; sedangkan Kelas XI B, yang terdiri dari 33 siswa, menjadi kelompok kontrol dan menerima pembelajaran konvensional. Data dalam penelitian ini dikumpulkan melalui metode tes yang diberikan dalam bentuk *posttest*. Selanjutnya, uji-t satu sisi (sisi kanan) dengan tingkat signifikansi 5% digunakan untuk menganalisis hasil ujian siswa terkait kemampuan mereka dalam memecahkan soal-soal transformasi geometri. Berdasarkan analisis data, siswa di kelas eksperimen memperoleh nilai rata-rata dalam pemecahan masalah sebesar 72,13, sedangkan siswa di kelompok kontrol memperoleh nilai 59,15. Berdasarkan pengujian menggunakan uji-t, diperoleh nilai t_{hitung} sebesar 3,930 dan t_{tabel} sebesar 1,674, sehingga $t_{hitung} > t_{tabel}$. Hasil penelitian menunjukkan bahwa penggunaan *GeoGebra* dalam menerapkan pendekatan *Guided Discovery Learning* dapat meningkatkan kemampuan siswa kelas sebelas dalam memecahkan soal-soal transformasi geometri.

Kata-kata Kunci: *Guided Discovery Learning*, *Geogebra*, Pemecahan Masalah

***THE EFFECT OF THE APPLICATION OF THE GUIDED DISCOVERY
LEARNING MODEL ASSISTED BY GEOGEBRA ON THE ABILITY OF
SOLVING GEOMETRIC TRANSFORMATION PROBLEMS IN GRADE XI
STUDENTS***

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ABSTRACT

This study aims to determine how the application of the Guided Discovery Learning methodology using GeoGebra affects the ability of 11th-grade students to solve geometric transformation problems. The research method used was a quasi-experimental design with a posttest-only control group, in which measurements were taken after the treatment was administered. A total of 165 11th-grade students divided into five classes at SMAN 1 Muncar, Banyuwangi Regency, in the odd semester of the 2025/2026 academic year constituted the population of this study. Two classes were selected as the research sample using a cluster random sampling technique without individual randomization: Class XI A, consisting of 32 students, served as the experimental group and received guided discovery learning supported by GeoGebra; while Class XI B, consisting of 33 students, served as the control group and received conventional instruction. The data in this study were collected through a posttest. Subsequently, a one-tailed (right-tailed) t-test with a 5% significance level was used to analyze the students' test results regarding their ability to solve geometric transformation problems. Based on the data analysis, students in the experimental class achieved an average score of 72.13 in problem-solving, while students in the control group achieved a score of 59.15. Based on the t-test, the calculated t-value was 3.930 and the critical t-value was 1.674, so the calculated t-value was greater than the critical t-value. The results of the study indicate that the use of GeoGebra in implementing the Guided Discovery Learning approach can improve the ability of eleventh-grade students to solve geometric transformation problems.

Keywords: Guided Discovery Learning, GeoGebra, problem-solving.