

Adinda Bernicha Ariesta. 2026. *Pengaruh Model PBL berbantuan Plotagon terhadap Kemampuan Berpikir Kritis Siswa Materi Struktur Bumi dan Perkembangannya*. Skripsi, Program Studi Pendidikan IPA, Fakultas Keguruan dan Ilmu Pendidikan, Universitas Trunodjoyo Madura. Pembimbing: Aditya Rakhmawan.

ABSTRAK

Berpikir kritis merupakan kemampuan menganalisis dengan tujuan menarik kesimpulan mengenai informasi yang dapat dipercaya kemudian menentukan langkah yang tepat berdasarkan berbagai pernyataan. Penelitian ini bertujuan untuk mengetahui pengaruh model PBL berbantuan *Plotagon* terhadap kemampuan berpikir kritis siswa, keterlaksanaan pembelajaran dan respons siswa setelah diterapkan model PBL berbantuan *Plotagon*. Jenis penelitian yang digunakan adalah *quasi experiment design*. Penelitian ini dilakukan di SMPN 1 Arosbaya dengan populasi penelitian siswa kelas VIII tahun ajaran 2025/2026. Sampel yang digunakan adalah kelas VIII F berjumlah 30 siswa sebagai kelas eksperimen dan VIII G berjumlah 26 siswa sebagai kelas kontrol dengan teknik *purposive sampling*. Desain penelitian ini adalah *nonequivalent control group design*. Teknik analisis data kemampuan berpikir kritis menggunakan *independent sample t test*. Hasil penelitian menunjukkan terdapat perbedaan kemampuan berpikir kritis siswa antara kelas eksperimen yang menggunakan model PBL berbantuan *Plotagon* dan kelas kontrol yang menggunakan model *discovery learning*, yang dibuktikan dengan nilai signifikansi $< 0,05$ serta t hitung $(5,592) > t$ tabel $(2,005)$. Dapat disimpulkan bahwa (1) model *Problem Based Learning* berbantuan *Plotagon* berpengaruh terhadap kemampuan berpikir kritis siswa pada materi Struktur Bumi dan Perkembangannya, yang ditunjukkan oleh peningkatan rata-rata nilai kelas eksperimen dari 36,3 (kategori rendah) pada *pretest* menjadi 70,5 (kategori tinggi) pada *posttest*, (2) keterlaksanaan pembelajaran pada model PBL berbantuan *plotagon* telah didapatkan persentase nilai rata-rata mencapai 97% dan kategori sangat baik, (3) respons peserta didik terhadap model PBL berbantuan *plotagon* telah didapatkan persentase nilai rata-rata mencapai 96% dan kategori sangat baik.

Kata kunci: kemampuan berpikir kritis, *problem based learning*, *plotagon*, struktur bumi

Adinda Bernicha Ariesta. 2026. *The Effect of the Plotagon-Assisted PBL Model on Students' Critical Thinking Skills on the Material of Earth Structure and Its Development*. Thesis, Science Education Study Program, Faculty of Teacher Training and Education, Trunodjoyo University, Madura. Advisor: Aditya Rakhmawan.

ABSTRACT

Critical thinking is the ability to analyze with the aim of drawing conclusions about reliable information and then determining the right steps based on various statements. This study aims to determine the effect of the PBL model assisted by Plotagon on students' critical thinking skills, learning implementation and student responses after the application of the PBL model assisted by Plotagon. The type of research used is a quasi-experimental design. This study was conducted at SMPN 1 Arosbaya with a research population of class VIII students in the 2025/2026 academic year. The sample used was class VIII F with 30 students as the experimental class and VIII G with 26 students as the control class with a purposive sampling technique. The design of this study is a nonequivalent control group design. The technique of analyzing critical thinking skills data uses an independent sample t-test. The results of the study show that there are differences in students' critical thinking skills between the experimental class using the PBL model assisted by Plotagon and the control class using the discovery learning model, as evidenced by a significance value < 0.05 and $t \text{ count } (5.592) > t \text{ table } (2.005)$. It can be concluded that (1) the Problem Based Learning model assisted by Plotagon has an effect on students' critical thinking skills on the material of Earth Structure and Its Development, which is shown by an increase in the average value of the experimental class from 36.3 (low category) in the pretest to 70.5 (high category) in the posttest, (2) the implementation of learning in the PBL model assisted by Plotagon has obtained an average value percentage of 97% and is in the very good category, (3) the response of students to the PBL model assisted by Plotagon has obtained an average value percentage of 96% and is in the very good category.

Keywords: *critical thinking skills, problem-based learning, plotagon, earth structure*