

ABSTRAK

Agryani Rosmaida Sitompul, NIM 4213311057 (2025). Efektivitas Model Problem Based Learning dalam Meningkatkan Kemampuan Berpikir Kritis Siswa Sekolah Menengah Atas.

Penelitian ini bertujuan untuk mengetahui efektivitas model Problem Based Learning (PBL) dalam meningkatkan kemampuan berpikir kritis siswa Sekolah Menengah Atas pada materi transformasi fungsi. Penelitian ini menggunakan metode eksperimen semu (quasi-experimental design) dengan satu kelas eksperimen yang diberi perlakuan model PBL. Subjek penelitian terdiri dari 30 siswa. Instrumen penelitian berupa tes kemampuan berpikir kritis yang meliputi indikator: menganalisis dan merumuskan masalah, memberikan penjelasan lebih lanjut, menyusun strategi dan taktik, serta menarik kesimpulan. Data dianalisis menggunakan uji normalita *Shapiro-Wilk*, *Paired Sample t-Test*, *N-Gain*, dan Cohen's d. Hasil penelitian menunjukkan: (1) rata-rata skor *pretest* 46,44 menjadi 85,06 pada *posttest*, dengan ketuntasan klasikal $\geq 75\%$; (2) uji t menunjukkan perbedaan signifikan ($\text{Sig.} < 0,05$) serta $t_{\text{hitung}} (25.330) > t_{\text{tabel}} (2.045)$; (3) nilai *N-Gain* rata-rata = 0,73 termasuk kategori tinggi; dan (4) nilai Cohen's d = 4,6, termasuk kategori efek sangat kuat.

Kata kunci: Problem-Based Learning, kemampuan berpikir kritis, *N-Gain*, Cohen's d, uji t.

ABSTRACT

Agryani Rosmaida Sitompul, NIM 4213311057 (2025). The Effectiveness of Problem-Based Learning Model in Improving Senior High School Students' Critical Thinking Skills.

This study aims to determine the effectiveness of the Problem-Based Learning (PBL) model in improving senior high school students' critical thinking skills on the topic of function transformations. This research employed a quasi-experimental design with one experimental class taught using the PBL model. The subjects of the study were 30 students. The research instrument was a critical thinking test covering the following indicators: analyzing and formulating problems, providing further explanations, developing strategies and tactics, and drawing conclusions. Data were analyzed using the *Shapiro-Wilk* normality test, *paired sample t-test*, *N-Gain*, and Cohen's *d*. The result of the study showed that: (1) the average *pretest* score of 46,44 increased to 85,06 in the *posttest*, with a classical mastery level of $\geq 75\%$; (2) the *t-test* revealed a significant difference ($\text{Sig.} < 0,05$) as well as $t_{\text{count}} (25.330) > t_{\text{table}} (2.045)$; (3) the mean *N-Gain* score was 0,73, categorized as high; and (4) Cohen's *d* was 4,6 categorized as a very strong effect.

Keywords: Problem-Based Learning, critical thinking skills, *N-Gain*, Cohen's *d*, *t-test*.

