

ABSTRAK

PENGARUH *PROBLEM BASED LEARNING* TERHADAP KEMAMPUAN BERPIKIR KRITIS DAN KOLABORASI PADA MATERI PERUBAHAN IKLIM

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Penelitian ini bertujuan untuk mengetahui pengaruh model PBL terhadap kemampuan berpikir kritis dan kolaborasi peserta didik pada materi perubahan iklim. Penelitian dilaksanakan pada semester genap di SMAN 1 Kotabumi tahun 2024/2025. Desain penelitian yang digunakan yaitu quasi eksperimen dengan teknik *pretest-posttest non-equivalent control group design*. Sampel diambil menggunakan teknik *purposive sampling* dengan kelas X1 sebagai kelas eksperimen dan X2 sebagai kelas kontrol. Jenis data berupa data kuantitatif dan kualitatif. Hasil Uji *Independent Sample T Test* pada kelas eksperimen dan kontrol sebesar Sig. (2-tailed) $0,01 < 0,05$ menunjukkan bahwa H_1 diterima. Hasil nilai *pretest-posttest* pada kelas eksperimen yang menggunakan model PBL mendapat nilai rata-rata *N-Gain* sebesar 0,72 termasuk kategori tinggi, lebih tinggi dibandingkan kelas kontrol yang menggunakan metode diskusi dengan rata-rata *N-Gain* sebesar 0,33 termasuk kategori sedang. Dilakukan juga uji *effect size* didapatkan nilai 2,663 dengan interpretasi “besar”. Hasil data kemampuan kolaborasi didapatkan dari lembar observasi diperoleh rata-rata persentase sebesar 78,85% dengan kategori baik pada kelas eksperimen sedangkan pada kelas kontrol diperoleh rata-rata persentase sebesar 66,79% dengan kategori cukup. Hasil data angket model PBL diperoleh rata-rata persentase sebesar 91,79% dengan kategori sangat baik. Dengan demikian penerapan model *Problem Based Learning* (PBL) berpengaruh dalam meningkatkan kemampuan berpikir kritis dan kolaborasi peserta didik.

Kata Kunci: Berpikir Kritis, Kolaborasi, Perubahan Iklim, *Problem Based Learning*.

ABSTRACT

THE EFFECT OF PROBLEM-BASED LEARNING ON CRITICAL THINKING AND COLLABORATION ON CLIMATE CHANGE MATERIAL

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This study aims to determine the effect of PBL model on students' critical thinking and collaboration skills on climate change material. The research was conducted in the even semester at SMAN 1 Kotabumi in 2024/2025. The research design used was quasi experiment with pretest-posttest non-equivalent control group design technique. The sample was taken using purposive sampling technique with class X1 as the experimental class and X2 as the control class. The type of data is quantitative and qualitative data. The results of the Independent Sample T Test in the experimental and control classes were Sig. (2-tailed) $0.01 < 0.05$ indicates that H1 is accepted. The results of the pretest-posttest scores in the experimental class using the PBL model got an average N-Gain value of 0.72 including the high category, higher than the control class using the discussion method with an average N-Gain of 0.33 including the medium category. The effect size test also obtained a value of 2.663 with the interpretation of "large". The results of the collaboration ability data obtained from the observation sheet obtained an average percentage of 78.85% with a good category in the experimental class while in the control class obtained an average percentage of 66.79% with a sufficient category. The results of the PBL model questionnaire data obtained an average percentage of 91.79% with a very good category. Thus the application of the Problem Based Learning (PBL) model has an effect in improving the critical thinking and collaboration skills of students.

Keywords: Critical Thinking, Collaboration, Climate Change, Problem Based Learning.