ABSTRAK

PENGARUH MODEL *PROBLEM BASED LEARNING* TERHADAP KEMAMPUAN PEMECAHAN MASALAH DAN *SUSTAINABILITY AWARENESS* SISWA SMA PADA MATERI PERUBAHAN IKLIM

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Penelitian ini bertujuan untuk mengetahui pengaruh dari model PBL pada materi perubahan iklim terhadap kemampuan pemecahan masalah dan *Sustainability Awareness* (SA) peserta didik serta mengetahui tanggapan peserta didik terhadap model PBL. Populasi dalam penelitian ini adalah siswa kelas X di SMA Negeri 6 Bandar Lampung yang berjumlah 255 peserta didik tahun ajaran 2025/2026. Sampel X.6 sebanyak 30 peserta didik kelas eksperimen dan X.2 sebanyak 30 peserta didik kelas kontrol yang dipilih dengan teknik *Purposive Sampling*. Jenis penelitian yang digunakan ialah *quasi eksperimen*. Data kemampuan pemecahan masalah menggunakan desain *Pretest-Posttest Nonequivalent Control Group* dan analisis data dilakukan perhitungan *N-Gain*, uji hipotesis *Independent Sample T-Test*, serta uji *Effect Size*. Sedangkan data SA menggunakan angket dan dianalisis menggunakan deskriptif kuantitatif dengan menghitung persentase dari skor angket yang diperoleh. Hasil penelitian menunjukkan kemampuan pemecahan masalah pada kelas eksperimen lebih tinggi *N-Gain* sebesar 0,76 (tinggi), dibandingkan kelompok kontrol 0,60 (sedang). Indikator dengan penigkatan tertinggi adalah memahami masalah, sedangkan yang terendah adalah menyusun rencana. Dilakukan uji *T-Test* menunjukkan nilai signifikansi sebesar 0,00 serta uji *Effect Size* yang menunjukkan nilai 1,07 degan interpretasi efektivitas besar. Hasil analisis SA kelompok eksperimen memperoleh persentase 64,89% lebih tinggi dibandingkan dengan kelompok kontrol 56,89%. Dengan demikian pembelajaran dengan model PBL pada materi perubahan iklim berpengaruh secara signifikan terhadap peningkatan pemecahan masalah dan SA peserta didik.

Kata Kunci: Kemampuan Pemecahan Masalah, Perubahan Iklim, *Problem Based Learning, Sustainability Awareness*

ABSTRACT

THE EFFECT OF PROBLEM BASED LEARNING MODEL ON PROBLEM-SOLVING SKILLS AND SUSTAINABILITY AWARENESS OF HIGH SCHOOL STUDENTS ON CLIMATE CHANGE MATERIAL

By

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This This study aims to determine the effect of the Problem-Based Learning (PBL) model on climate change material on students' problem-solving skills and Sustainability Awareness (SA), as well as to identify students' responses to the PBL model. The population in this study consisted of 255 tenth-grade students at SMA Negeri 6 Bandar Lampung in the 2025/2026 academic year. The samples were class X.6 with 30 students as the experimental group and class X.2 with 30 students as the control group, selected using purposive sampling. This research employed a quasi-experimental design. Data on problem-solving skills were collected using a pretest-posttest nonequivalent control group design and analyzed using N-Gain calculation, Independent Sample t-test, and Effect Size. Meanwhile, sustainability awareness data were collected using a questionnaire and analyzed using quantitative descriptive analysis by calculating the percentage of the obtained scores. The results of the study showed that the problem-solving ability of the experimental class was higher (N-Gain 0.76) compared to the control group (0.60) (moderate). The indicator with the highest increase was understanding the problem and re-examining, while the lowest was making a plan. The t-test results indicated a significance value of 0.00, and the Effect Size value was 1.07, which falls into the large category. The sustainability awareness of the experimental group reached 64.89%, higher than the control group at 56.89%. Thus, the implementation of the PBL model on climate change material has a significant effect on improving students' problem-solving skills and sustainability awareness.

Keywords: *Climate Change, Problem Based Learning, Problem-Solving Skills, Sustainability Awareness*