ABSTRAK

PENGARUH PENGGUNAAN MODEL *LEARNING CYCLE* 5E TERHADAP *CRITICAL THINKING SKILLS* DAN *SELF-REGULATED LEARNING* SISWA PADA MATERI PENCEMARAN LINGKUNGAN

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Rendahnya *critical thinking skills* dan *self-regulated learning* siswa menjadi tantangan dalam proses pembelajaran. Penelitian ini bertujuan untuk mengetahui pengaruh model *Learning Cycle 5E* terhadap *critical thinking skills* dan *self-regulated learning* siswa pada materi pencemaran lingkungan di SMP PGRI 1 Bandar Surabaya tahun ajaran 2024/2025. Populasi pada penelitian ini adalah seluruh siswa kelas VII SMP PGRI 1 Bandar Surabaya. Sampel penelitian adalah siswa kelas VII A (eksperimen) dan VII C (kontrol) dengan teknik pengambilan sampel yaitu *sample random sampling.* Jenis data yang digunakan data kuantitatif berupa *critical thinking skills* dan *self-regulated learning* siswa dan data kualitatif berupa angket tanggapan siswa. Pengambilan data diperoleh melalui *Pretest-posttest* dan angket *self-regulated learning*. Hasil penelitian menunjukkan bahwa penerapan model *Learning Cycle* 5E berpengaruh secara signifikan dalam meningkatkan *critical thinking skills* dan *self-regulated learning* siswa. Hal ini didukung oleh hasil uji hipotesis yang menunjukkan nilai signifikansi *Sig*. (2-tailed) 0.000 < 0.05 untuk *critical thinking skills* dan *Sig*. (2-tailed) 0.00 < 0.05 untuk *self-regulated learning*. Indikator *critical thinking skills* yang mengalami peningkatan tertinggi adalah kemampuan menyimpulkan (*N-gain* 0.71). Sementara itu, indikator *self-regulated learning* yang meningkat tertinggi adalah strategi belajar (*N-gain* 0.88). Uji *effect size* menunjukkan koefisien *d Cohen's* sebesar 3.27 untuk *critical thinking skills* dan 5.06 untuk *self-regulated learning*, keduanya dalam kategori tinggi. Model ini dapat menjadi alternatif strategi pembelajaran yang mendukung untuk meningkatkan *critical thinking skills* dan *self-regulated learning* siswa.

Kata Kunci: *Critical Thinking Skills, Learning cycle* 5E, *Self-Regulated Learning.*

ABSTRACT

THE EFFECT OF USING THE 5E CYCLE LEARNING MODEL ON STUDENTS' CRITICAL THINKING SKILLS AND SELF-REGULATE LEARNING ON ENVIRONMENTAL POLLUTION MATERIAL

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The low levels of students' critical thinking skills and self-regulated learning pose challenges in the learning process. This study aims to determine the effect of the Learning Cycle 5E model on students' critical thinking skills and self-regulated learning in the environmental pollution topic at SMP PGRI 1 Bandar Surabaya during the 2024/2025 academic year. The population of this study comprised all seventh-grade students at SMP PGRI 1 Bandar Surabaya. The research sample consisted of class VII A (experimental group) and class VII C (control group), selected through simple random sampling. The types of data used were quantitative data in the form of students' critical thinking skills and self-regulated learning scores, and qualitative data in the form of student response questionnaires. Data collection was carried out through pretests and posttests as well as self-regulated learning questionnaires.

The results of the study showed that the implementation of the Learning Cycle 5E model had a significant effect on improving students' critical thinking skills and self-regulated learning. This is supported by hypothesis testing results, which showed a significance value of Sig. (2-tailed) 0.000 < 0.05 for critical thinking skills and Sig. (2-tailed) 0.00 < 0.05 for self-regulated learning. The highest increase in the critical thinking skills indicators was in the ability to draw conclusions (N-gain = 0.71). Meanwhile, the highest increase in self-regulated learning indicators was in learning strategies (N-gain = 0.88). The effect size test showed a Cohen's d coefficient of 3.27 for critical thinking skills and 5.06 for self-regulated learning, both categorized as high. This model can serve as an alternative learning strategy to enhance students' critical thinking skills and self-regulated learning.

Keywords: *Critical Thinking Skills, Learning cycle* 5E*, Self-Regulated Learning*