

ABSTRAK

Akni Jinatun Nurutami (1222060007): Pengaruh Model Pembelajaran *Problem Based Learning* (PBL) Berbasis *Science, Environment, Technology and Society* (SETS) Terhadap Peningkatan Keterampilan Berpikir Kritis Siswa Pada Materi Perubahan Lingkungan.

Keterampilan berpikir kritis merupakan salah satu kompetensi abad ke-21 yang perlu dikembangkan dalam pembelajaran, tidak terbatas pada mengingat informasi saja tetapi juga melibatkan kemampuan untuk menganalisis. Berdasarkan hasil studi pendahuluan, diketahui kemampuan ini masih rendah pada materi perubahan lingkungan. Penelitian ini bertujuan untuk mengetahui pengaruh model pembelajaran *Problem Based Learning* (PBL) berbasis *Science, Environment, Technology, and Society* (SETS) terhadap peningkatan keterampilan berpikir kritis siswa pada materi perubahan lingkungan. Metode dalam penelitian ini digunakan *quasi experiment* dengan jenis desain *non-equivalent control group* menerapkan dua kelas dengan subjek penelitian 72 peserta didik, yaitu 36 siswa kelas eksperimen dan 36 siswa kelas kontrol yang dipilih menggunakan teknik *cluster random sampling*. Instrumen yang digunakan berupa soal uraian berjumlah 18 item. Hasil penelitian di kelas menggunakan PBL berbasis SETS menunjukkan keterlaksanaan aktivitas guru sebesar 93% dan aktivitas siswa sebesar 88% dengan kategori sangat baik, serta respons siswa sebesar 86% dengan kategori sangat kuat. Nilai rata-rata N-Gain kelas eksperimen sebesar 0,67 dan kelas kontrol sebesar 0,55, keduanya berkategori sedang. Hasil *independent sample t-test* menunjukkan nilai signifikansi (*2-tailed*) sebesar 0,002 ($< 0,05$) dengan *effect size* sebesar 0,77 (sedang). Dengan demikian, model *Problem Based Learning* (PBL) berbasis *Science, Environment, Technology, and Society* (SETS) berpengaruh signifikan terhadap peningkatan keterampilan berpikir kritis siswa pada materi perubahan lingkungan.

Kata kunci: *Problem Based Learning*, SETS, keterampilan berpikir kritis, perubahan lingkungan.

ABSTRACT

Akni Jinatun Nurutami (1222060007): *The Effect of Problem Based Learning (PBL) Model Based on Science, Environment, Technology and Society (SETS) on Improving Students' Critical Thinking Skills on Environmental Change Material.*

Critical thinking skills are one of the 21st century competencies that need to be developed in learning, not limited to remembering information but also involving the ability to analyze. Based on the results of preliminary studies, it is known that this ability is still low in environmental change material. This study aims to determine the effect of the Problem Based Learning (PBL) learning model based on Science, Environment, Technology, and Society (SETS) on improving students' critical thinking skills in environmental change material. The method in this study used a quasi-experimental with a non-equivalent control group design type applying two classes with 72 students as research subjects, namely 36 students in the experimental class and 36 students in the control class selected using cluster random sampling techniques. The instrument used was a descriptive question totaling 18 items. The results of the study in the class using SETS-based PBL showed the implementation of teacher activities by 93% and student activities by 88% with a very good category, as well as student responses by 86% with a very strong category. The average N-Gain value of the experimental class was 0.67 and the control class was 0.55, both in the moderate category. The results of the independent sample t-test showed a significance value (2-tailed) of 0.002 (<0.05) with an effect size of 0.77 (moderate). Thus, the Problem-Based Learning (PBL) model based on Science, Environment, Technology, and Society (SETS) significantly improved students' critical thinking skills on environmental change.

Keywords: *Problem-Based Learning, SETS, critical thinking skills, environmental change.*