

ABSTRAK

NELLY NOVIYANTI: Penerapan Pendekatan *Science, Environment, Technology And Society* (SETS) Berbantuan *Quizizz* Terhadap Kemampuan Berpikir Kritis Siswa. **Program Studi Pendidikan Fisika FKIP Universitas Malikussaleh, 2026.**

Pendekatan SETS berfokus pada bagaimana sains berhubungan dengan teknologi, lingkungan, dan masyarakat. Ini melibatkan masalah aktual yang dihadapi siswa, mengajarkan mereka untuk berpikir kritis dan menanggapi masalah yang disebabkan oleh kemajuan teknologi dan lingkungan. Penelitian ini bertujuan untuk mengetahui perbedaan kemampuan berpikir kritis siswa pada materi usaha dan energi antara siswa yang belajar dengan pendekatan SETS berbantuan *Quizizz* dan siswa dengan pembelajaran konvensional di kelas XI SMAN 1 Syamtalira Bayu.

Metode penelitian yang digunakan adalah *Quasi Experimental Design* dengan desain *Nonequivalent Control Group Design*. Sampel penelitian terdiri dari kelas XI IPAS 1 sebagai kelas eksperimen dan XI IPAS 2 sebagai kelas kontrol, masing-masing berjumlah 22 siswa. Instrumen penelitian berupa tes essay kemampuan berpikir kritis. Teknik sampling yang digunakan adalah teknik sampling jenuh. Hasil penelitian menunjukkan nilai rata-rata *pretest* dan *posttest* kelas eksperimen sebesar 26,5 dan 57,3, sedangkan kelas kontrol sebesar 26,8 dan 47,7. Uji *independent sample t-test* menunjukkan nilai Sig. (2-tailed) $0,027 < 0,05$, sehingga H_0 ditolak dan H_a diterima.

Hasil penelitian menunjukkan adanya perbedaan kemampuan berpikir kritis siswa yang signifikan antara pembelajaran menggunakan pendekatan SETS berbantuan *Quizizz* dan pembelajaran konvensional yang dibuktikan dengan hasil Uji-t.

Kata Kunci:berpikir kritis, pendekatan SETS, aplikasi *Quizizz*

ABSTRACT

NELLY NOVIYANTI: *Application Of The Science, Environment, Technology And Society (SETS) Approach Assisted By Quizizz On The Critical Thinking Skills Of Students. Physics Education Study Program, FKIP, Malikussaleh University, 2026.*

The SETS approach focuses on how science relates to technology, the environment, and society. It involves the actual problems that students face, teaching them to think critically and respond to problems caused by technological and environmental advancements. This study aims to determine the difference in students' critical thinking skills in business materials and energy between students who study with the Quizizz-assisted SETS approach and students with conventional learning in grade XI of SMAN 1 Syamtalira Bayu.

The research method used is Quasi Experimental Design with a Nonequivalent Control Group Design. The research sample consisted of class XI IPAS 1 as an experimental class and XI IPAS 2 as a control class, each amounting to 22 students. The research instrument is in the form of a critical thinking ability essay test. The sampling technique used is a saturated sampling technique. The results showed that the average pretest and posttest scores of the experimental class were 26.5 and 57.3, while the control class was 26.8 and 47.7. An independent sample t-test showed a Sig. (2-tailed) value of $0.027 < 0.05$, so that H_0 was subtracted and H_a was accepted.

The results showed that there was a significant difference in students' critical thinking skills between learning using the Quizizz-assisted SETS approach and conventional learning as evidenced by the results of the t-test.

Keywords: *critical thinking, SETS approach, Quizizz app*