

ABSTRAK

Siti Nurjanah. 2025. **PENGARUH MODEL *PROCESS ORIENTED GUIDED INQUIRY LEARNING* (POGIL) BERBANTUAN H5P TERHADAP HASIL BELAJAR KOGNITIF PESERTA DIDIK PADA MATERI PERUBAHAN IKLIM**

Rendahnya hasil belajar kognitif peserta didik dan minimnya inovasi dalam model pembelajaran fisika menjadi faktor yang melatarbelakangi penelitian ini, yang bertujuan untuk mengetahui pengaruh model *Process Oriented Guided Inquiry Learning* (POGIL) berbantuan H5P terhadap hasil belajar kognitif. Penelitian ini menggunakan metode kuasi eksperimen dengan desain *nonequivalent control group*. Populasi penelitian terdiri dari seluruh kelas X SMA Negeri 1 Sindangkasih tahun ajaran 2024/2025 yang berjumlah 11 kelas, dengan pemilihan sampel secara *purposive*. Untuk mengukur hasil belajar kognitif, *pretest* dan *posttest* dilakukan dengan menggunakan 27 soal pilihan ganda mengenai materi perubahan iklim, yang mencakup tingkatan domain kognitif dari C1 hingga C4. Analisis data dilakukan dengan uji prasyarat, termasuk uji normalitas dan homogenitas, serta uji hipotesis menggunakan uji *dependent t test* dan *independent t test*. Meskipun hasil uji *dependent t test* menunjukkan adanya peningkatan hasil belajar kognitif pada kelas eksperimen dan kelas kontrol, hasil utama dari penelitian ini yang diuji dengan *independent t test* menunjukkan $t_{hitung} > t_{tabel}$ yaitu $7,235 > 1,992$ sehingga H_0 ditolak dan H_a diterima, hal ini mengindikasikan bahwa penerapan model POGIL berbantuan H5P berpengaruh terhadap hasil belajar kognitif peserta didik. Manfaat penelitian ini adalah memberikan kontribusi pada pengembangan keilmuan mengenai model POGIL berbantuan H5P, serta menyediakan alternatif model pembelajaran yang inovatif bagi guru dan dapat meningkatkan hasil belajar kognitif peserta didik dalam mata pelajaran Fisika.

Kata kunci: hasil belajar kognitif, H5P, model *process oriented guided inquiry learning* (POGIL), dan perubahan iklim

ABSTRACT

Siti Nurjanah. 2025. ***THE EFFECT OF PROCESS ORIENTED GUIDED INQUIRY LEARNING (POGIL) MODEL BY H5P ON STUDENT'S COGNITIVE LEARNING OUTCOMES ON CLIMATE CHANGE MATERIALS***

The low cognitive learning outcomes of students and the lack of innovation in physics teaching models were the background factors for this research, which aimed to determine the effect of the Process-Oriented Guided Inquiry Learning (POGIL) model assisted by H5P on cognitive learning outcomes. This study used a quasi-experimental method with a nonequivalent control group design. The research population consisted of all 11 grade X classes at SMA Negeri 1 Sindangkasih for the 2024/2025 academic year, with samples selected purposively. To measure cognitive learning outcomes, pretests and posttests were administered using 27 multiple-choice questions on climate change material, covering cognitive domain levels from C1 to C4. Data analysis was conducted with prerequisite tests, including normality and homogeneity tests including normality and homogeneity tests, as well as hypothesis testing using an independent t-test and dependent t-test. Although the dependent t-test results showed a significant increase in cognitive learning outcomes in both the experimental and control classes, the main result of this study, tested with the independent t-test, showed that $t_{\text{statistic}} > t_{\text{table}}$, namely $7.235 > 1.992$, thus H_0 was rejected and H_a was accepted. This indicates that the implementation of the POGIL model assisted by H5P has an effect on the cognitive learning outcomes of students. The benefit of this research is to contribute to the development of knowledge regarding the POGIL model assisted by H5P, as well as to provide an innovative alternative learning model for teachers and to improve students' cognitive learning outcomes in Physics.

Keywords: cognitive learning outcomes, H5P, process oriented guided learning (POGIL) model, and climate change.