

**PENGARUH AKTIVITAS EKSPERIMENTASI YANG DIIKUTI
PENGGUNAAN PEMODELAN IKLIM TERHADAP PEMAHAMAN DAN
KESADARAN PERUBAHAN IKLIM SISWA SMA**

SKRIPSI

*diajukan untuk memenuhi sebagian syarat untuk memperoleh gelar
Sarjana Pendidikan Biologi*



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ABSTRAK

Pengaruh Aktivitas Eksperimen yang Diikuti Penggunaan Pemodelan Iklim Terhadap Pemahaman dan Kesadaran Perubahan Iklim Siswa SMA

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Perubahan iklim yang terjadi di Indonesia dapat diperparah akibat kurangnya pengetahuan terkait perubahan iklim pada masyarakat. Cara mengajar yang tepat untuk meningkatkan pemahaman siswa tentang perubahan iklim adalah dengan aktivitas pembelajaran yang berpusat pada siswa dan siswa terlibat secara aktif dalam pembelajaran seperti kegiatan eksperimen. Kegiatan eksperimen dapat dikolaborasikan dengan memanfaatkan pembelajaran perubahan iklim yang berbasis teknologi pemodelan. Pemodelan iklim dapat merepresentasikan keadaan iklim secara regional maupun global melalui teknologi komputer. Tujuan penelitian ini adalah untuk mengetahui pengaruh aktivitas eksperimen yang diikuti penggunaan pemodelan iklim terhadap pemahaman dan kesadaran perubahan iklim siswa SMA. Metode penelitian yang digunakan pada penelitian ini adalah *quasi experimental design* dengan desain penelitian *non-equivalent control group design*. Sampel terdiri dari 65 siswa yang terbagi menjadi 32 siswa kelas eksperimen dan 33 siswa kelas kontrol. Pengambilan sampel pada penelitian ini dilakukan dengan teknik *cluster random sampling*. Instrumen pada penelitian ini adalah Instrumen *The Climate Stewardship Survey* (CSS) yang dirumuskan oleh Walker & McNeal (2012) dan Instrumen Kesadaran Perubahan Iklim yang dirumuskan oleh Sen (2021). Seluruh pengujian statistik pada penelitian ini diolah dengan menggunakan bantuan *software SPSS* versi 22. Hasil penelitian menunjukkan kegiatan pembelajaran mengenai materi perubahan iklim dengan menggunakan aktivitas eksperimen yang diikuti penggunaan pemodelan iklim tidak berpengaruh terhadap pemahaman dan kesadaran perubahan iklim siswa SMA.

Kata Kunci: Aktivitas Eksperimen, Penggunaan Pemodelan Iklim, Pemahaman dan Kesadaran, Perubahan Iklim.

ABSTRACT

The Effect of Experimental Activities Followed by the Use of Climate Modeling on Understanding and Awareness of Climate Change for High School Students

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Climate change in Indonesia can be exacerbated by the lack of knowledge related to climate change in the community. The right way of teaching to increase students' understanding of climate change is with student-centered learning activities and students are actively involved in learning such as experimental activities. Experimental activities can be collaborated by utilizing climate change learning based on modeling technology. Climate modeling can represent climate conditions regionally and globally through computer technology. The purpose of this study was to determine the effect of experimental activities followed by the use of climate modeling on the understanding and awareness of climate change among high school students. The research method used in this study is a quasi-experimental design with a non-equivalent control group design. The sample consisted of 65 students divided into 32 experimental class students and 33 control class students. Sampling in this study was conducted using the cluster random sampling technique. The instruments in this research are The Climate Stewardship Survey (CSS) Instrument formulated by Walker & McNeal (2012) and the Climate Change Awareness Instrument formulated by Sen (2021). All statistical tests in this study were processed using SPSS software version 22. The results showed that learning activities regarding climate change material using experimental activities followed by the use of climate modeling did not affect the understanding and awareness of climate change in high school students.

Keyword: Experimental Activities, Use of Climate Modeling, Understanding and Awareness, Climate Change.

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