

ABSTRAK

Klarita Dwijayanti Waruwu, NIM 3213331036. Pengaruh Penerapan Model *Project Based Learning* Terhadap Hasil Belajar Siswa Pada Materi Dinamika Hidrosfer di SMA Negeri 13 Medan. Jurusan Pendidikan Geografi, Fakultas Ilmu Sosial, Universitas Negeri Medan, 2025

Penelitian ini bertujuan untuk mengetahui pengaruh penerapan model *Project Based Learning* (PjBL) terhadap hasil belajar siswa pada materi Dinamika Hidrosfer di SMA Negeri 13 Medan. Jenis penelitian ini adalah penelitian kuantitatif dengan desain *one group pretest-posttest* yang dilaksanakan pada dua kelas. Populasi penelitian adalah seluruh siswa kelas X SMA Negeri 13 Medan tahun ajaran 2024/2025 sebanyak 426 siswa, sedangkan sampel penelitian ditentukan secara *purposive sampling* yaitu kelas X-1 (36 siswa) dan X-8 (35 siswa) dengan total 71 siswa. Kedua kelas diberikan perlakuan yang sama menggunakan model *Project Based Learning*. Instrumen penelitian berupa tes hasil belajar berbentuk pilihan ganda sebanyak 20 butir soal yang telah diuji validitas dan reliabilitasnya dengan nilai *Cronbach's Alpha* sebesar 0,834. Analisis data dilakukan dengan uji normalitas, uji *paired sample t-test*, serta perhitungan *N-Gain* untuk mengetahui peningkatan hasil belajar.

Hasil penelitian menunjukkan bahwa penerapan model *Project Based Learning* berpengaruh signifikan terhadap peningkatan hasil belajar siswa. Nilai rata-rata keseluruhan meningkat dari 62,75 pada *pretest* menjadi 87,61 pada *posttest*. Hasil uji *paired sample t-test* menunjukkan nilai *t*-hitung sebesar -13,755 dengan signifikansi $0,000 < 0,05$, sehingga hipotesis alternatif (H_a) diterima. Nilai rata-rata *N-Gain* sebesar 0,6133 (61,33%) termasuk dalam kategori peningkatan sedang. Kelas X-1 mengalami peningkatan rata-rata sebesar 26,94 poin (dari 61,94 menjadi 88,88), sedangkan kelas X-8 meningkat sebesar 22,86 poin (dari 63,42 menjadi 86,28). Seluruh siswa (100%) mencapai ketuntasan belajar setelah penerapan model PjBL. Hal ini menunjukkan bahwa penggunaan model *Project Based Learning* dapat meningkatkan hasil belajar siswa secara signifikan, karena memberikan kesempatan kepada peserta didik untuk belajar secara aktif, mandiri, dan kolaboratif melalui kegiatan proyek yang kontekstual.

Kata Kunci: *Project Based Learning (PjBL), Hasil Belajar, Dinamika Hidrosfer, Pembelajaran Geografi.*

ABSTRACT

Klarita Dwijayanti Waruwu, Student ID 3213331036. The Effect of Implementing the Project-Based Learning Model on Student Learning Outcomes in Hydrosphere Dynamics at SMA Negeri 13 Medan. Department of Geography Education, Faculty of Social Sciences, Medan State University, 2025

This study aims to determine the effect of implementing the Project-Based Learning (PjBL) model on student learning outcomes in Hydrosphere Dynamics at SMA Negeri 13 Medan. This is a quantitative study with a one-group pretest-posttest design conducted in two classes. The study population was all 426 tenth-grade students of SMA Negeri 13 Medan in the 2024/2025 academic year. The sample was determined using purposive sampling: classes X-1 (36 students) and X-8 (35 students), totaling 71 students. Both classes were given the same treatment using the Project-Based Learning model. The research instrument was a 20-item multiple-choice learning outcome test, which was tested for validity and reliability, with a Cronbach's Alpha value of 0.834. Data analysis was performed using normality testing, paired sample t-tests, and N-Gain calculations to determine improvements in learning outcomes.

The results showed that the implementation of the Project-Based Learning model significantly improved student learning outcomes. The overall average score increased from 62.75 in the pretest to 87.61 in the posttest. The paired sample t-test showed a t-value of -13.755 with a significance level of $0.000 < 0.05$, thus accepting the alternative hypothesis (H_a). The average N-Gain value of 0.6133 (61.33%) was categorized as moderate improvement. Class X-1 experienced an average increase of 26.94 points (from 61.94 to 88.88), while class X-8 saw an increase of 22.86 points (from 63.42 to 86.28). All students (100%) achieved learning completion after implementing the Project-Based Learning (PjBL) model. This demonstrates that the use of the Project-Based Learning model can significantly improve student learning outcomes, as it provides opportunities for students to learn actively, independently, and collaboratively through contextual project activities.

Keywords: Project-Based Learning (PjBL), Learning Outcomes, Hydrospheric Dynamics, Geography Learning.