

ABSTRAK

Melati Sri Agnes Sipahutar, NIM 4201151005 (2025). Pengaruh Model *Problem Based Learning* dengan Literasi Sains terhadap Hasil Belajar Kognitif Siswa pada Materi Ekologi Kelas VII di SMP Negeri 12 Medan.

Penelitian ini bertujuan untuk mengetahui pengaruh model *problem based learning* dengan literasi sains terhadap hasil belajar kognitif siswa pada materi ekologi. Populasi dalam penelitian yaitu seluruh siswa kelas VII SMP Negeri 12 Medan yang terdiri dari 9 kelas T.A 2023/2024 dengan jumlah siswa 284 orang. Sampel dalam penelitian diambil satu kelas yakni kelas eksperimen VII-2 dengan jumlah 30 orang. Jenis penelitian yang digunakan adalah penelitian kuantitatif dengan *pre experimental* dan desain penelitian yang digunakan adalah *One Group Pre-test and Post-test Design*. Instrumen yang digunakan berupa pilihan berganda 18 soal yang sudah divalidasi. Teknik analisis data menggunakan uji hipotesis *Paired Sampel t-test* menggunakan *software SPSS Statistics 25*. Nilai rata-rata dan standar deviasi *pretest* sebesar $39,06 \pm 8,77$ dan *posttest* sebesar $86,63 \pm 7,22$. Hasil uji hipotesis diperoleh hasil dengan data nilai Sig. (2-tailed) sebesar $0,000 < 0,05$ hipotesis H_a diterima sekaligus menolak H_0 . Kesimpulannya bahwa model *problem based learning* dengan literasi sains berpengaruh terhadap hasil belajar kognitif siswa pada materi ekologi kelas VII di SMP Negeri 12 Medan.

Kata Kunci: *problem based learning*, literasi sains, hasil belajar kognitif, ekologi.



ABSTRACT

Melati Sri Agnes Sipahutar, NIM 4201151005 (2025). The Effect of Problem Based Learning Model with Scientific Literacy on Students Cognitive Learning Outcomes in Class VII Ecology Material at SMP Negeri 12 Medan.

This study aims to determine the effect of the problem based learning model with scientific literacy on students cognitive learning outcomes in ecology material. Population in the study were all students of class VII of SMP Negeri 12 Medan consisting of 9 classes of the 2023/2024 academic year with a total of 284 students. Sample in the study was taken from one class, namely the experimental class VII-2 with a total of 30 students. The type of research used is quantitative research with pre experimental and research design used is one group pre-test and post-test design. Instrument used is a multiple choice of 18 validated questions. The data analysis technique used the paired sample t-test hypothesis test using SPSS Statistics 25 software. The average and standard deviation pretest is 39.06 ± 8.77 and the posttest is 86.63 ± 7.22 . The results of the hypothesis test obtained results with Sig. value data (2-tailed) of $0.000 < 0.05$, the hypothesis H_a is accepted and H_0 is rejected. The conclusion is that the problem based learning model with scientific literacy has an effect on students cognitive learning outcomes in the ecology material of class VII at SMP Negeri 12 Medan.

Keywords: problem based learning, scientific literacy, cognitive learning outcomes, ecology.

