

ABSTRAK

Nazla Laila Ramadhani, NIM 4203121070 (2026). Pengaruh *Problem Based Learning* (PBL) Terhadap Hasil Belajar Siswa Pada Materi Fluida Statis Di Kelas XI SMA Islam Al – Ulum Terpadu Medan.

Penelitian ini bertujuan untuk mengetahui pengaruh penerapan model pembelajaran *Problem Based Learning* (PBL) terhadap hasil belajar fisika siswa pada materi fluida statis di kelas XI SMA Islam Al – Ulum Terpadu Medan. Penelitian ini dilatarbelakangi oleh rendahnya hasil belajar fisika siswa yang disebabkan oleh karakteristik materi fluida statis yang bersifat abstrak serta proses pembelajaran yang masih didominasi oleh pembelajaran konvensional sehingga siswa kurang terlibat aktif dalam pembelajaran. Penelitian ini merupakan penelitian quasi eksperimen dengan desain *pretest – posttest* control group design. Populasi penelitian adalah seluruh siswa kelas XI IPA SMA Islam Al- Ulum Terpadu Medan tahun ajaran 2025/2026. Sampel penelitian terdiri atas dua kelas yang dipilih menggunakan teknik cluster random sampling, yaitu kelas eksperimen yang diajar menggunakan model pembelajaran *Problem Based Learning* dan kelas kontrol yang diajar menggunakan pembelajaran konvensional. Instrumen penelitian berupa tes hasil belajar kognitif dalam bentuk pilihan ganda yang telah diuji validitas dan reliabilitasnya. Data penelitian dianalisis menggunakan statistik deskriptif dan statistik inferensial melalui uji normalitas, uji homogenitas, dan uji hipotesis menggunakan uji Wilcoxon Matched Pairs. Hasil penelitian menunjukkan bahwa nilai rata-rata *posttest* kelas eksperimen sebesar 86,56 lebih tinggi dibandingkan dengan kelas kontrol 72,19, dengan nilai signifikansi sebesar $0,00 < 0,05$. Berdasarkan hasil tersebut dapat disimpulkan bahwa penerapan model pembelajaran *Problem Based Learning* berpengaruh signifikan terhadap hasil belajar fisika siswa pada materi fluida statis.

Kata kunci : *Problem Based Learning*, hasil belajar, fluida statis, fisika.

ABSTRACT

Nazla Laila Ramadhani, NIM 4203121070 (2026). The Influence of Problem Based Learning (PBL) on Student Learning Outcomes on Static Fluid Material in Class XI of Al-Ulum Integrated Islamic Senior High School, Medan.

This study aimed to determine the effect of the Problem Based Learning (PBL) model on students' physics learning outcomes on static fluid material in grade XI of SMA Swasta Al-Ulum Medan. This research was motivated by low physics learning outcomes caused by the abstract nature of static fluid concepts and the dominance of conventional learning methods that result in low student engagement in the learning process. This research employed a quasi-experimental method with a pretest-posttest control group design. The population consisted of all eleventh-grade science students of SMA Swasta Al-Ulum Medan in the academic year 2025/2026. The sample consisted of two classes selected using the cluster random sampling technique, namely an experimental class taught using the Problem Based Learning model and a control class taught using conventional learning methods. The research instrument was a cognitive learning outcomes test in the form of multiple-choice questions that had been tested for validity and reliability. Data were analyzed using descriptive and inferential statistics through normality tests, homogeneity tests, and hypothesis testing using the Wilcoxon Matched Pairs test. The results showed that the average posttest score of the experimental class was 86.56, which was higher than that of the control class at 72.19, with a significance value of $0.00 < 0.05$. These results indicate that the implementation of the Problem Based Learning model has a significant effect on students' physics learning outcomes on static fluid material.

Keywords: Problem Based Learning, learning outcomes, static fluid, physics.