

ABSTRAK

MEYGA ARTIKA : Studi Komparatif Model *Challenge Based Learning* dan *Case Based Learning* terhadap Hasil Belajar Siswa pada Materi Asam Basa di SMA Negeri 1 Banda Baro.

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Penelitian ini dilatarbelakangi oleh proses pembelajaran kimia yang masih berpusat pada guru sehingga keterlibatan siswa dalam pembelajaran belum optimal dan berdampak pada rendahnya hasil belajar. Penelitian ini bertujuan untuk mengetahui perbedaan hasil belajar kognitif, afektif, dan psikomotorik siswa yang diajarkan menggunakan model *Challenge Based Learning* (ChBL) dan *Case Based Learning* (CBL) pada materi asam basa di SMA Negeri 1 Banda Baro. Penelitian ini menggunakan model kuantitatif dengan jenis penelitian komparatif dan desain *Quasi Experimental* tipe *Nonequivalent Group Design*. Populasi penelitian adalah seluruh siswa kelas XI SMA Negeri 1 Banda Baro tahun ajaran 2025/2026 yang berjumlah 42 siswa. Teknik pengambilan sampel menggunakan *sampling jenuh*, sehingga seluruh populasi dijadikan sampel, yaitu kelas XI-1 (20 siswa) sebagai kelas eksperimen I yang diajar menggunakan model ChBL dan kelas XI-2 (22 siswa) sebagai kelas eksperimen II yang diajar menggunakan model CBL. Instrumen penelitian berupa tes pilihan ganda untuk mengukur hasil belajar kognitif serta lembar observasi untuk mengukur hasil belajar afektif dan psikomotorik. Analisis data dilakukan melalui uji normalitas, uji homogenitas, uji *Independent Sample t-test*, dan uji *N-Gain*. Hasil penelitian menunjukkan bahwa data berdistribusi normal dan homogen. Hasil uji hipotesis menunjukkan terdapat perbedaan yang signifikan antara kedua model pembelajaran terhadap hasil belajar siswa, dengan nilai signifikansi ranah kognitif sebesar 0,018, ranah afektif sebesar 0,035, dan ranah psikomotorik sebesar 0,013 (Sig. < 0,05). Hasil uji *N-Gain* menunjukkan bahwa kelas ChBL memperoleh peningkatan hasil belajar yang lebih tinggi dibandingkan kelas CBL, yaitu pada ranah kognitif sebesar 0,77 (kategori tinggi), afektif sebesar 0,69 (kategori sedang), dan psikomotorik sebesar 0,73 (kategori tinggi), sedangkan kelas CBL memperoleh *N-Gain* masing-masing sebesar 0,69 (kategori sedang), 0,60 (kategori sedang), dan 0,66 (kategori sedang). Berdasarkan hasil penelitian dapat disimpulkan bahwa model *Challenge Based Learning* lebih efektif dibandingkan model *Case Based Learning* dalam meningkatkan hasil belajar kognitif, afektif, dan psikomotorik siswa pada materi asam basa di SMA Negeri 1 Banda Baro.

Kata kunci: *Challenge Based Learning*, *Case Based Learning*, Hasil Belajar, Asam Basa, Studi Komparatif.

ABSTRACT

MEYGA ARTIKA: *A Comparative Study of the Challenge Based Learning and Case Based Learning Models on Students' Learning Outcomes in the Acid-Base Topic at SMA Negeri 1 Banda Baro.*

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This study was motivated by the chemistry learning process, which remains teacher-centered, resulting in suboptimal student engagement and consequently low learning outcomes. The aim of this study was to determine the differences in students' cognitive, affective, and psychomotor learning outcomes between those taught using the Challenge Based Learning (ChBL) model and those taught using the Case Based Learning (CBL) model on the acid-base topic at SMA Negeri 1 Banda Baro. This research employed a quantitative approach with a comparative research design using a quasi-experimental method of the Nonequivalent Group Design type. The population consisted of all Grade XI students of SMA Negeri 1 Banda Baro in the 2025/2026 academic year, totaling 42 students. A saturated sampling technique was employed, in which the entire population was selected as the research sample. Class XI-1, consisting of 20 students, served as Experimental Class I and was taught using the ChBL model, while Class XI-2, consisting of 22 students, served as Experimental Class II and was taught using the CBL model. The research instruments included multiple-choice tests to assess cognitive learning outcomes and observation sheets to evaluate affective and psychomotor learning outcomes. The data were analyzed using the normality test, homogeneity test, Independent Sample t-test, and N-Gain test. The findings indicated that the data were normally distributed and homogeneous. The hypothesis testing revealed significant differences between the two learning models in terms of students' learning outcomes, with significance values of 0.018 for the cognitive domain, 0.035 for the affective domain, and 0.013 for the psychomotor domain (Sig. < 0.05). The N-Gain analysis showed that the ChBL class achieved higher learning improvement than the CBL class, with N-Gain scores of 0.77 (high category) for the cognitive domain, 0.69 (moderate category) for the affective domain, and 0.73 (high category) for the psychomotor domain. In contrast, the CBL class obtained N-Gain scores of 0.69 (moderate category), 0.60 (moderate category), and 0.66 (moderate category) for the cognitive, affective, and psychomotor domains, respectively. Based on these findings, it can be concluded that the Challenge Based Learning model is more effective than the Case Based Learning model in improving students' cognitive, affective, and psychomotor learning outcomes on the acid-base topic at SMA Negeri 1 Banda Baro.

Keywords: *Challenge Based Learning, Case Based Learning, Learning Outcomes, Acid-Base, Comparative Study.*