

## ABSTRAK

**Indah Idea Sri Madani Pane, 4203141041 (2024). Perbedaan Kemampuan Berpikir Kritis Siswa Menggunakan Model PBL dan PJBL pada Materi Sel di SMA Negeri 13 Medan.**

Kemampuan berpikir kritis menjadi topik yang penting di era pendidikan abad 21, terutama dalam pembelajaran biologi yang memerlukan pemahaman konsep mendalam. Penerapan model pembelajaran yang bervariasi menjadi salah satu strategi untuk meningkatkan kemampuan berpikir kritis siswa. Penelitian ini bertujuan untuk mengetahui perbedaan kemampuan berpikir kritis siswa yang diajarkan menggunakan model *Problem Based Learning* (PBL) dengan model *Project Based Learning* (PjBL) pada materi Sel di SMA Negeri 13 Medan. Jenis penelitian eksperimen semu dengan pendekatan kuantitatif. Populasi dalam penelitian ini meliputi seluruh siswa kelas XI SMA Negeri 13 Medan yang masing-masing berjumlah 36 orang. Kelas XI-1 ditetapkan sebagai kelas eksperimen I dan kelas XI-2 sebagai kelas eksperimen II. Sampel tersebut diperoleh menggunakan teknik *purposive sampling*. Hasil penelitian menunjukkan kemampuan berpikir kritis siswa lebih unggul pada kelas yang diajarkan menggunakan model *Problem Based Learning* (PBL). Kelas yang diajarkan menggunakan model *Problem Based Learning* (PBL) diperoleh nilai rata-rata postes 75,08. Kelas yang diajarkan menggunakan model *Project Based Learning* (PjBL) diperoleh nilai rata-rata postes 67,44. Berdasarkan hasil uji hipotesis *Independent T-test* nilai signifikansi yang diperoleh ialah  $0,022 < 0,050$ . Disimpulkan bahwa terdapat perbedaan signifikan kemampuan berpikir kritis siswa pada materi Sel antara kelas yang menggunakan model *Problem Based Learning* (PBL) dengan kelas yang menggunakan model *Project Based Learning* (PjBL).

Kata kunci : *Problem Based Learning* (PBL), *Project Based Learning* (PjBL), Kemampuan berpikir kritis.

## ABSTRACT

**Indah Idea Sri Madani Pane, 4203141041 (2024). The Difference in Students' Critical Thinking Skills Using PBL and PjBL Models on Cell Material at SMA Negeri 13 Medan.**

Critical thinking skills have become an important topic in the 21st century education era, especially in biology learning, where deep conceptual understanding is needed. Use of various teaching models is one of the strategies to improve students' critical thinking. This study aims to determine the difference in students' critical thinking skills taught using the Problem Based Learning (PBL) model and the Project Based Learning (PjBL) model on Cell material at SMA Negeri 13 Medan. This study is a quasi-experimental with a quantitative approach. Population of study includes all 11<sup>th</sup> grade students of SMA Negeri 13 Medan, with 36 students in each class. Class XI-1 was selected as Experiment Class I and Class XI-2 as Experiment Class II. The sample was selected using purposive sampling. The results show that students' critical thinking skills were higher in the class taught using the Problem Based Learning model. The average post-test score of the Problem Based Learning class was 75,08. The class taught using Project Based Learning model had an average post-test 67,44. Based on the Independent T-test hypothesis test, the significance value was  $0,022 < 0,050$ . It was concluded that there is a significant difference in students' critical thinking skills on Cell material between the class using the Problem Based Learning (PBL) model and the class using the Project Based Learning (PjBL) model.

Keywords: Problem Based Learning (PBL), Project Based Learning (PjBL), Critical thinking skills.

