

ABSTRAK

Enikristina Simbolon, NIM. 4193311050 (2023). Pengaruh Pembelajaran Matematika Menggunakan Model Pembelajaran *Problem-Based Learning* (PBL) Terhadap Kemampuan Berpikir Kritis Siswa SMK.

Adanya pergeseran peningkatan kualitas pendidikan sehingga menyebabkan rendahnya pencapaian serta ketertinggalan pembelajaran peserta didik khususnya pelajaran matematika yang belum optimal, yang menyebabkan kemampuan berpikir kritis masih belum berkembang dengan baik. Penelitian ini bertujuan untuk mengetahui adanya pengaruh model *Problem Based Learning* (PBL) dalam pembelajaran Matematika terhadap kemampuan berpikir kritis siswa dalam pembelajaran Matematika di SMK. Jenis penelitian eksperimen yang digunakan adalah penelitian *Quasy Eksperimental Design*. Pada penelitian ini, desain yang digunakan adalah *pretest-posttest control group design*, teknik pengumpulan data yang akan digunakan peneliti yaitu observasi, tes dan dokumentasi. Teknik analisis data yang digunakan adalah analisis perbedaan dua rata-rata dengan menggunakan rumus uji t. Hasil penelitian menunjukkan kemampuan berpikir kritis matematis siswa pada kelas yang mendapat perlakuan menggunakan model *Problem Based Learning* (PBL) lebih baik, terjadi peningkatan sebesar 44,5%, sehingga peningkatan ini lebih signifikan daripada siswa yang mendapat pembelajaran konvensional sebesar 31,1 %. Kemudian, dari hasil perhitungan uji hipotesis diperoleh $t_{hitung} = 3,554$ dan $t_{tabel} = 2,000$, maka diperoleh $t_{hitung} > t_{tabel}$ ($3,554 > 2,000$). Maka H_0 ditolak dan H_1 diterima. Dengan demikian disimpulkan bahwa terdapat pengaruh pembelajaran menggunakan *problem based learning* (PBL) terhadap kemampuan berpikir kritis matematis siswa SMK.

Kata Kunci: Pengaruh, *Problem Based Learning* (PBL), Kemampuan Berpikir Kritis

ABSTRACT

Enikristina Simbolon, NIM. 4193311050 (2023). The Effect of Learning Mathematics Using Problem-Based Learning (PBL) Learning Models on the Critical Thinking Skills of Vocational High School Students.

There is a shift towards improving the quality of education to address low achievement and lagging behind in student learning, especially in mathematics lessons that are not optimal, resulting in improper development of critical thinking skills. This study aims to determine the influence of the Problem-Based Learning (PBL) model on students' critical thinking skills in mathematics learning in Vocational High Schools. The type of experimental research used is Quasi Experimental Design research. In this study, the design used was the pretest-posttest control group design. The data collection techniques used by researchers were observation, testing, and documentation. The data analysis technique used is the analysis of the difference between the two averages using the t-test formula. The results showed that students' mathematical critical thinking skills in the class that received treatment using the Problem-Based Learning (PBL) model were better. There was an increase of 44.5%, which was more significant than the increase of 31.1% in students who received conventional learning. Then, from the calculation results of the hypothesis test, $t_{count} = 3.554$ and $t_{table} = 2,000$, with $t_{count} > t_{table}$ ($3.554 > 2,000$). As a result, H_0 is rejected, and H_1 is accepted. Thus, it was concluded that there was an effect of learning using Problem-Based Learning (PBL) on the mathematical critical thinking skills of SMK students.

Keywords: Influence, Problem Based Learning (PBL), Critical Thinking Ability