

**PENGARUH MODEL PEMBELAJARAN PBL (*PROBLEM  
BASED LEARNING*) BERBANTUAN E-LKPD TERHADAP  
KEMAMPUAN KOMUNIKASI MATEMATIS  
SISWA KELAS VIII SMP**

Oleh

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**ABSTRAK**

Penelitian ini bertujuan untuk menganalisis pengaruh model pembelajaran PBL (*Problem Based Learning*) berbantuan E-LKPD terhadap kemampuan komunikasi matematis siswa. Jenis penelitian ini adalah eksperimen semu dengan desain penelitian *post-test only control group*. Populasi penelitian ini adalah seluruh siswa kelas VIII SMP Negeri 2 Kubu tahun ajaran 2024/2025 sebanyak 228 siswa. Sampel penelitian terdiri atas siswa kelas VIII F dan VIII G yang dipilih menggunakan teknik *cluster random sampling* sebanyak 66 siswa. Uji kesetaraan kelas dilakukan berdasarkan nilai sumatif akhir semester genap. Instrumen penelitian berupa tes uraian terdiri dari lima soal yang diberikan kepada kelompok eksperimen dan kelompok kontrol pada akhir penelitian. Data hasil tes kemampuan komunikasi matematis dianalisis menggunakan uji-*t* pada taraf signifikansi 5%. Hasil analisis menunjukkan bahwa nilai  $t_{hitung} = 2,169$  lebih besar dari  $t_{tabel} = 1,997$  sehingga  $H_0$  ditolak. Hal ini berarti kemampuan komunikasi matematis siswa yang mengikuti pembelajaran dengan menggunakan model PBL berbantuan E-LKPD lebih baik dibandingkan dengan siswa yang mengikuti pembelajaran konvensional. Dengan demikian, dapat disimpulkan bahwa penerapan model pembelajaran PBL (*Problem Based Learning*) berbantuan E-LKPD memiliki pengaruh positif terhadap kemampuan komunikasi matematis siswa.

**Kata kunci:** PBL (*Problem Based Learning*), E-LKPD, Kemampuan Komunikasi Matematis.

**THE EFFECT OF THE PBL (PROBLEM-BASED LEARNING) MODEL  
SUPPORTED BY E-LKPD ON THE MATHEMATICAL COMMUNICATION  
SKILLS OF EIGHTH-GRADE STUDENTS IN JUNIOR HIGH SCHOOL**

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**ABSTRACT**

*The aim of this study was to examine how students' mathematical communication skills are influenced by the PBL (Problem-Based Learning) model supported by E-LKPD (Electronic Student Worksheets). The research design employed was a post-test only control group design. The population of the study consisted of all eighth-grade students at SMP Negeri 2 Kubu, totaling 228 students in the 2024/2025 academic year. The research sample was drawn from classes VIII F and VIII G using the cluster random sampling technique. An equivalence test between the classes was conducted based on the even semester summative scores to ensure group parity. The instrument used was a descriptive test comprising five questions, administered to both groups at the end of the study. A t-test at a 5% significance level was used to analyze the mathematical communication skills test. Based on the analysis, the null hypothesis ( $H_0$ ) was rejected because the t-value ( $t_{\text{calculated}} = 2.169$ ) exceeded the critical value ( $t_{\text{table}} = 1.997$ ). This indicates that students who participated in the PBL model supported by E-LKPD demonstrated better mathematical communication skills than those who underwent conventional learning methods. Therefore, the PBL model supported by E-LKPD is recommended as an alternative teaching method to enhance students' mathematical communication skills.*

**Keywords:** *PBL, E-LKPD, Mathematical Communication Skills.*