

ABSTRACT

DEVELOPMENT OF PROBLEM-BASED LEARNING LKPD TO IMPROVE STUDENTS' MATHEMATICAL COMMUNICATION ABILITY

By

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This development research was conducted to produce problem-based learning worksheets to improve students' mathematical communication skills using the ADDIE development model. The subjects in this study were students in class VIII-9 as the control class and VIII-10 as the experimental class at SMP Negeri 2 Bandar Lampung in the 2022/2023 academic year. The data obtained came from interviews, questionnaires, and tests of mathematical communication skills. Based on the results of the validation, the PBL based LKPD that was developed was stated to be valid, and the response of teachers and students was very high regarding the practicality of LKPD. The results of the field test in the large group showed that the mathematical communication skills of the experimental class students were greater when compared to the control class as seen from the higher N-Gain average results, as well as the results of student learning completeness as much as 84% of students scored above the KKM, namely 76 so that LKPD based on Problem Based Learning is effective for improving students' mathematical communication skills. Therefore, it can be concluded that LKPD based on Problem Based Learning is valid, practical, and effective for improving students' mathematical communication skills.

Keywords: *Student Worksheets (LKPD), Problem Based Learning Mathematical Communication Skills*

ABSTRAK

PENGEMBANGAN LKPD BERBASIS *PROBLEM BASED LEARNING* UNTUK MENINGKATKAN KEMAMPUAN KOMUNIKASI MATEMATIS SISWA

Oleh

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Penelitian pengembangan ini dilakukan untuk menghasilkan LKPD berbasis *Problem Based Learning* untuk meningkatkan kemampuan komunikasi matematis siswa menggunakan model pengembangan *ADDIE*. Subjek pada penelitian ini adalah siswa kelas VIII-9 sebagai kelas kontrol dan VIII-10 sebagai kelas eksperimen pada SMP Negeri 2 Bandar Lampung Tahun Pelajaran 2022/2023. Data diperoleh berasal dari wawancara, angket, dan tes kemampuan komunikasi matematis. Berdasarkan hasil validasi, LKPD berbasis PBL yang dikembangkan dinyatakan valid, serta respon guru dan siswa sangat tinggi mengenai kepraktisan LKPD. Hasil uji lapangan pada kelompok besar menunjukkan bahwa kemampuan komunikasi matematis siswa kelas eksperimen lebih besar jika dibandingkan dengan kelas kontrol terlihat dari hasil rerata *N-Gain* lebih tinggi, serta hasil ketuntasan belajar siswa sebanyak 84% siswa mendapatkan nilai di atas KKM yakni 76 sehingga LKPD berbasis *Problem Based Learning* efektif untuk meningkatkan kemampuan komunikasi matematis siswa. Oleh karena itu, dapat disimpulkan bahwa LKPD berbasis *Problem Based Learning* valid, praktis, dan efektif untuk meningkatkan kemampuan komunikasi matematis siswa.

Kata kunci: LKPD, *Problem Based Learning*, Kemampuan Komunikasi Matematis