

**EFEKTIVITAS LEMBAR KERJA PESERTA DIDIK (LKPD) BERBASIS
PROBLEM BASED LEARNING (PBL) TERHADAP KEMAMPUAN
PEMECAHAN MASALAH PADA MATERI PERUBAHAN
LINGKUNGAN PESERTA DIDIK KELAS X SMA NEGERI 2 BANJAR**

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ABSTRAK

Penelitian ini bertujuan untuk mengetahui efektivitas Lembar Kerja Peserta Didik (LKPD) berbasis *Problem Based Learning* (PBL) terhadap kemampuan pemecahan masalah pada materi perubahan lingkungan peserta didik kelas X SMA Negeri 2 Banjar. Penelitian ini menggunakan jenis kuasi eksperimen dengan rancangan *nonequivalent control group design*. Sampel penelitian berjumlah 68 peserta didik kelas X SMA Negeri 2 Banjar yang terbagi ke dalam kelas eksperimen dan kelas kontrol, masing-masing berjumlah 34 peserta didik. Kelas eksperimen memperoleh pembelajaran menggunakan LKPD berbasis *Problem Based Learning*, sedangkan kelas kontrol mengikuti pembelajaran konvensional. Data penelitian dikumpulkan melalui tes kemampuan pemecahan masalah berdasarkan chaerunisa & pittori (2022) berbentuk esai yang diberikan sebelum dan sesudah perlakuan. Instrumen penelitian telah melalui uji validitas isi, validitas butir, reliabilitas, dan tingkat kesukaran soal. Analisis data dilakukan menggunakan *Analysis of Covariance* (ANCOVA) setelah memenuhi uji prasyarat yang meliputi uji normalitas, homogenitas, linearitas, dan homogenitas regresi. Hasil penelitian menunjukkan bahwa terdapat perbedaan kemampuan pemecahan masalah yang signifikan antara kelas eksperimen dan kelas kontrol ($p = 0,022 < 0,05$). Rata-rata skor posttest kelas eksperimen sebesar 74,63 lebih tinggi dibandingkan dengan kelas kontrol sebesar 63,00. Analisis efektivitas menunjukkan nilai *Partial Eta Squared* sebesar 0,079 yang termasuk kategori sedang (*moderate effect*). Hasil penelitian mengindikasikan bahwa LKPD berbasis *Problem Based Learning* efektif meningkatkan kemampuan pemecahan masalah peserta didik pada materi perubahan lingkungan dan dapat dijadikan sebagai alternatif perangkat pembelajaran yang mendukung pembelajaran berpusat pada peserta didik serta mengembangkan keterampilan berpikir tingkat tinggi.

Kata-kata kunci: kemampuan pemecahan masalah; LKPD; perubahan lingkungan; *problem-based learning*; *quasi experiment*

**THE EFFECTIVENESS OF PROBLEM-BASED LEARNING (PBL)-
BASED STUDENT WORKSHEETS (LKPD) ON STUDENTS' PROBLEM-
SOLVING SKILLS IN ENVIRONMENTAL CHANGE MATERIAL
AMONG TENTH-GRADE STUDENTS OF SMA NEGERI 2 BANJAR**

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ABSTRACT

This study aimed to determine the effectiveness of Problem-Based Learning (PBL)-based Student Worksheets (LKPD) on the problem-solving skills of tenth-grade students in learning environmental change at SMA Negeri 2 Banjar. The study employed a quasi-experimental method using a nonequivalent control group design. The research sample consisted of 68 tenth-grade students at SMA Negeri 2 Banjar, who were divided into an experimental group and a control group, with 34 students in each group. The experimental group received instruction using PBL-based Student Worksheets (LKPD), while the control group participated in conventional learning. Data were collected through an essay test designed to measure students' problem-solving skills, which was administered before and after the treatment. Prior to implementation, the research instrument was subjected to content validity, item validity, reliability, and item difficulty analyses to ensure its quality. The data were analyzed using Analysis of Covariance (ANCOVA) after fulfilling the assumptions of normality, homogeneity, linearity, and homogeneity of regression slopes. The findings revealed a significant difference in problem-solving skills between the experimental and control groups ($p = 0.022 < 0.05$). The experimental group obtained a higher mean posttest score (74.63) than the control group (63.00). The effectiveness analysis yielded a Partial Eta Squared value of 0.079, indicating a moderate effect size. These findings indicate that PBL-based Student Worksheets (LKPD) are effective in improving students' problem-solving skills in learning environmental change. Therefore, PBL-based LKPD can be used as an alternative instructional material to support student-centered learning and promote the development of higher-order thinking skills.

Keywords: environmental change; problem-based learning; problem-solving skills; quasi-experiment; student worksheet (LKPD)