

PENGEMBANGAN PERANGKAT PEMBELAJARAN BERBASIS PROBLEM
BASED LEARNING UNTUK MENINGKATKAN HASIL BELAJAR SISWA
PADA MATERI FOTOSINTESIS PELAJARAN IPAS KELAS IV SD

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ABSTRAK

Perangkat pembelajaran berbasis *Problem Based Learning* (PBL) dinyatakan efektif dalam meningkatkan hasil belajar kognitif siswa kelas IV pada materi fotosintesis di mata pelajaran IPAS SD Negeri 4 Pakutatatan. Evaluasi kelayakan perangkat menunjukkan skor rata-rata 4,80 dari ahli materi dan 4,65 dari ahli media, yang tergolong sangat memuaskan. Sementara itu, aspek kepraktisan memperoleh skor rata-rata 4,80 dari guru dan 4,48 dari siswa, menandakan perangkat ini mudah diterapkan di dalam kelas. Pengembangan perangkat dilakukan menggunakan model *ADDIE* dalam kerangka penelitian dan pengembangan (*Research and Development*), melibatkan para ahli, guru praktik, dan 23 siswa sebagai subjek uji coba. Perangkat yang dikembangkan meliputi modul ajar, Lembar Kerja Peserta Didik (LKPD), serta media pendukung yang disusun secara kontekstual dan berbasis masalah, dengan pengumpulan data melalui observasi, wawancara, kuesioner, dan tes pilihan ganda. Hasil uji efektivitas menggunakan *paired sample t-test* memperoleh nilai signifikansi $0,000 < 0,05$, yang menjelaskan bahwa perangkat pembelajaran ini layak dan efektif digunakan untuk meningkatkan prestasi belajar siswa secara optimal.

Kata-kata kunci: perangkat pembelajaran, *Problem Based Learning*, hasil belajar, fotosintesis.

DEVELOPMENT OF PROBLEM-BASED LEARNING LEARNING
MATERIALS TO IMPROVE STUDENT LEARNING OUTCOMES ON
PHOTOSYNTHESIS MATERIAL IN FOURTH GRADE ELEMENTARY
SCHOOL SCIENCE LESSONS

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ABSTRACT

The Problem Based Learning (PBL)-based instructional materials were declared effective in improving the cognitive learning outcomes of fourth-grade students on the topic of photosynthesis in the IPAS subject at SD Negeri 4 Pakutatan. The feasibility evaluation of the instructional materials showed an average score of 4.80 from the subject matter expert and 4.65 from the media expert, both categorized as highly satisfactory. Meanwhile, the practicality aspect obtained an average score of 4.80 from the teacher and 4.48 from the students, indicating that the materials are easy to implement in the classroom.

The development of the instructional materials employed the ADDIE model within the framework of Research and Development (R&D), involving experts, a classroom teacher, and 23 students as trial participants. The developed materials consisted of a teaching module, Student Worksheets (LKPD), and supporting media designed contextually and problem-based. Data were collected through observation, interviews, questionnaires, and multiple-choice tests. The effectiveness test using a paired sample t-test resulted in a significance value of $0.000 < 0.05$, indicating that the instructional materials are feasible and effective in optimally improving students' learning achievement.

Keywords: *instructional materials, Problem Based Learning, learning outcomes, photosynthesis.*