

PENGEMBANGAN MEDIA VIDEO PEMBELAJARAN BERBASIS *PROBLEM BASED LEARNING* MUATAN IPAS MATERI WUJUD ZAT DAN PERUBAHANNYA PADA SISWA KELAS IV SEKOLAH DASAR

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ABSTRAK

Penelitian pengembangan ini bertujuan untuk mengetahui rancang bangun, validitas, dan efektivitas media video pembelajaran berbasis *Problem Based Learning* pada muatan IPAS materi Wujud Zat dan Perubahannya siswa kelas IV Sekolah Dasar. Subjek uji coba penelitian ini yaitu ahli materi pembelajaran, ahli desain pembelajaran, ahli media pembelajaran, dan 13 orang siswa kelas IV SD Negeri 3 Bangbang. Penelitian pengembangan ini menggunakan model ADDIE (*Analyze, Design, Development, Implementation, Evaluation*). Metode pengumpulan data yang digunakan yaitu metode observasi, wawancara, kuesioner, dan tes. Teknik analisis data menggunakan teknik analisis deskriptif kuantitatif dan analisis statistik inferensial uji-t. Hasil penelitian pengembangan ini menunjukkan bahwa: (1) rancang bangun media video pembelajaran berbasis *Problem Based Learning* memperoleh persentase skor sebesar 96,59% dengan kualifikasi sangat baik; (2) hasil uji kelayakan media video pembelajaran berbasis *Problem Based Learning* memperoleh hasil sebagai berikut: (a) hasil uji ahli materi pembelajaran memperoleh persentase skor sebesar 95,54% dengan kualifikasi sangat baik, (b) hasil uji ahli desain pembelajaran memperoleh persentase skor sebesar 94,65% dengan kualifikasi sangat baik, (c) hasil uji ahli media pembelajaran memperoleh persentase skor sebesar 96,67% dengan kualifikasi sangat baik, dan (d) hasil uji coba perorangan memperoleh persentase skor sebesar 95,45% dengan kualifikasi sangat baik; (3) hasil uji efektivitas media video pembelajaran berbasis *Problem Based Learning* diperoleh berdasarkan hasil analisis uji-t. Nilai rata-rata hasil belajar siswa sebelum menggunakan media (*pre-test*) sebesar 44,92 dan setelah menggunakan media (*post-test*) sebesar 84,62. Hasil perhitungan uji-t memperoleh nilai t_{hitung} sebesar 18,49 dengan t_{tabel} sebesar 1,78 pada taraf signifikansi 5% dengan $dk = 12$, sehingga $t_{hitung} > t_{tabel}$. Hal tersebut menunjukkan bahwa H_0 ditolak dan H_1 diterima, yang berarti terdapat perbedaan yang signifikan antara hasil belajar siswa sebelum dan sesudah menggunakan media video pembelajaran berbasis *Problem Based Learning*. Dengan demikian, dapat disimpulkan bahwa media video pembelajaran berbasis *Problem Based Learning* pada muatan IPAS materi Wujud Zat dan Perubahannya efektif digunakan dalam proses pembelajaran siswa kelas IV SD Negeri 3 Bangbang.

Kata-kata kunci: video pembelajaran, *Problem Based Learning*, IPAS, wujud zat dan perubahannya

ABSTRAK

This development research aimed to determine the design, validity, and effectiveness of a Problem-Based Learning (PBL)-based instructional video on the topic of States of Matter and Their Changes in the Ilmu Pengetahuan Alam dan Sosial (IPAS) subject for fourth-grade elementary school students. The research subjects consisted of a subject matter expert, an instructional design expert, a learning media expert, and 13 fourth-grade students of SD Negeri 3 Bangbang. This study employed the ADDIE development model, which includes the stages of Analysis, Design, Development, Implementation, and Evaluation. Data were collected through observation, interviews, questionnaires, and tests. The data were analyzed using descriptive quantitative analysis and inferential statistics through a paired-samples t-test. The results of this development study indicate that: (1) the design of the Problem-Based Learning-based instructional video achieved a score percentage of 96.59%, which falls into the excellent category; (2) the feasibility test results of the instructional video were as follows: (a) the subject matter expert evaluation obtained a score percentage of 95.54% (excellent); (b) the instructional design expert evaluation obtained 94.65% (excellent); (c) the learning media expert evaluation obtained 96.67% (excellent); and (d) the individual trial obtained 95.45% (excellent); (3) the effectiveness of the Problem-Based Learning-based instructional video was determined through the t-test analysis. The students' mean pre-test score was 44.92, while the mean post-test score increased to 84.62. The t-test analysis yielded a calculated t value ($t_{(count)}$) of 18.49, which exceeded the critical t value ($t_{(table)}$) of 1.78 at the 5% significance level with 12 degrees of freedom ($df = 12$). Therefore, $t_{(count)} > t_{(table)}$, indicating that the null hypothesis (H_0) was rejected and the alternative hypothesis (H_1) was accepted. This finding demonstrates a significant difference between students' learning outcomes before and after using the Problem-Based Learning-based instructional video. Therefore, it can be concluded that the Problem-Based Learning-based instructional video on the IPAS topic of States of Matter and Their Changes is effective for use in the learning process of fourth-grade students at SD Negeri 3 Bangbang.

Keywords: instructional video, Problem-Based Learning, IPAS, states of matter and their changes.