

**PENGEMBANGAN MULTIMEDIA INTERAKTIF BERBASIS PBL
BERBANTUAN *GOOGLE SITES* MATERI CAHAYA DAN SIFATNYA
SISWA KELAS V SD**

Oleh:

Dewa Ayu Iga Praganita, NIM 2211031503

Program Studi Pendidikan Guru Sekolah Dasar

Jurusan Pendidikan Dasar

ABSTRAK

Penelitian pengembangan ini dilatarbelakangi oleh rendahnya kemampuan berpikir kritis dan hasil belajar siswa pada mata pelajaran IPAS materi Cahaya dan Sifatnya di SD Negeri 25 Pemecutan Denpasar, dengan rata-rata nilai siswa sebesar 67,11 dan belum mencapai ketuntasan. Penelitian ini bertujuan untuk mengetahui (1) rancang bangun, (2) validitas, (3) kepraktisan, dan (4) efektivitas Multimedia Interaktif Berbasis *Problem Based Learning* (PBL) Berbantuan *Google Sites* Materi Cahaya dan Sifatnya Siswa Kelas V SD. Penelitian ini menggunakan model pengembangan ADDIE dengan subjek penelitian 30 siswa kelas V SD Negeri 25 Pemecutan Denpasar. Data dikumpulkan melalui metode angket dan tes, dianalisis menggunakan analisis deskriptif kuantitatif untuk validitas dan kepraktisan, serta analisis statistik inferensial meliputi uji normalitas Shapiro-Wilk, uji homogenitas uji-F, dan uji-t berkorelasi untuk menguji efektivitas media. Hasil penelitian menunjukkan bahwa (1) rancang bangun media dikembangkan berdasarkan flowchart, storyboard, dan diagram alir sesuai tahapan model ADDIE melalui platform *Google Sites* yang dapat diakses menggunakan jaringan internet; (2) uji validitas memperoleh kualifikasi sangat baik berdasarkan penilaian ahli rancang bangun (95,31%), ahli materi pembelajaran (94,65%), ahli desain instruksional (93,17%), dan ahli media pembelajaran (93,33%) sehingga dinyatakan valid dan layak digunakan; (3) uji kepraktisan memperoleh respons sangat baik berdasarkan penilaian guru (97,91%), uji coba perorangan (95,00%), dan uji coba kelompok kecil (91,38%) sehingga dinyatakan praktis digunakan; serta (4) uji efektivitas menggunakan uji-t berkorelasi memperoleh nilai t_o hitung sebesar 12,454 lebih besar dari t_o tabel 2,04 pada taraf signifikansi 5% dengan $df = 29$, sehingga H_o ditolak dan H_1 diterima. Rata-rata *pre-test* sebesar 73,67 meningkat menjadi 82,67 pada *post-test* dengan peningkatan 12,21% dan koefisien korelasi $r = 0,99$ yang menunjukkan hubungan sangat kuat antara kedua pengukuran. Berdasarkan hasil tersebut, disimpulkan bahwa Multimedia Interaktif Berbasis PBL Berbantuan *Google Sites* dinyatakan valid, praktis, dan efektif diterapkan pada pembelajaran IPAS materi Cahaya dan Sifatnya untuk meningkatkan kemampuan berpikir kritis siswa kelas V sekolah dasar.

Kata Kunci: *Multimedia Interaktif, Problem Based Learning (PBL), Google Sites, Kemampuan Berpikir Kritis*

ABSTRACT

This development research was motivated by the low critical thinking ability and learning outcomes of students in the Science and Social Studies (IPAS) subject on the topic of Light and Its Properties at SD Negeri 25 Pemecutan Denpasar, with an average student score of 67.11 which had not yet reached mastery. This study aimed to determine (1) the design, (2) validity, (3) practicality, and (4) effectiveness of Problem Based Learning (PBL)-Based Interactive Multimedia Assisted by Google Sites on the topic of Light and Its Properties for Grade V Elementary School Students. This study employed the ADDIE development model with 30 Grade V students of SD Negeri 25 Pemecutan Denpasar as research subjects. Data were collected through questionnaire and test methods, analyzed using quantitative descriptive analysis for validity and practicality, as well as inferential statistical analysis including the Shapiro-Wilk normality test, F-test homogeneity test, and correlated t-test to examine the effectiveness of the media. The results showed that (1) the media design was developed based on a flowchart, storyboard, and flow diagram in accordance with the ADDIE model stages through the Google Sites platform accessible via the internet; (2) the validity test obtained a very good qualification based on the assessments of the instructional design expert (95.31%), learning material expert (94.65%), instructional design expert (93.17%), and learning media expert (93.33%), thus declared valid and suitable for use; (3) the practicality test obtained a very good response based on the teacher's assessment (97.91%), individual trial (95.00%), and small group trial (91.38%), thus declared practical for use; and (4) the effectiveness test using the correlated t-test obtained a t_0 calculated value of 12.454, which is greater than the t_0 table value of 2.04 at a significance level of 5% with $df = 29$, so H_0 was rejected and H_1 was accepted. The pre-test average of 73.67 increased to 82.67 on the post-test, representing an improvement of 12.21% with a correlation coefficient of $r = 0.99$ indicating a very strong relationship between the two measurements. Based on these results, it is concluded that PBL-Based Interactive Multimedia Assisted by Google Sites is declared valid, practical, and effective for implementation in IPAS learning on the topic of Light and Its Properties to improve the critical thinking ability of Grade V elementary school students.

Keywords: Interactive Multimedia, Problem Based Learning (PBL), Google Sites, Critical Thinking Skills