

**PENGEMBANGAN *E-BOOK* BERMUATAN VIDEO SIMULASI PADA  
TOPIK MITIGASI BENCANA AKIBAT CUACA EKSTREM UNTUK  
MENINGKATKAN HASIL BELAJAR SISWA KELAS IV SEKOLAH DASAR**

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**ABSTRAK**

Penelitian ini bertujuan untuk mengembangkan media pembelajaran *e-book* bermuatan video simulasi pada topik mitigasi bencana akibat cuaca ekstrem serta mengetahui tingkat validitas, kepraktisan, dan efektivitasnya dalam meningkatkan hasil belajar IPAS siswa kelas IV sekolah dasar. Penelitian ini merupakan penelitian pengembangan yang menggunakan model ADDIE yang meliputi tahap analisis, desain, pengembangan, implementasi, dan evaluasi. Subjek penelitian adalah siswa kelas IV SD Negeri 1 Penarukan. Metode pengumpulan data meliputi observasi, wawancara, angket, dan tes hasil belajar. Data dianalisis menggunakan teknik analisis deskriptif kualitatif dan kuantitatif. Hasil penelitian menunjukkan bahwa *e-book* bermuatan video simulasi memperoleh kategori sangat baik berdasarkan penilaian ahli materi dan ahli media. Kepraktisan media berada pada kategori sangat baik berdasarkan respon guru dan siswa. Hasil uji efektivitas melalui uji t berpasangan menunjukkan nilai signifikansi sebesar 0,001 ( $< 0,05$ ) yang menandakan adanya perbedaan hasil belajar yang signifikan antara sebelum dan sesudah penggunaan media. Selain itu, hasil uji *n-gain score* menunjukkan nilai rata-rata sebesar 0,56 dengan persentase 56% yang berada pada kategori sedang dan tafsiran cukup efektif. Berdasarkan hasil tersebut, *e-book* bermuatan video simulasi dapat dinyatakan layak digunakan sebagai media pembelajaran IPAS di sekolah dasar.

**Kata Kunci:** *E-Book*, Video Simulasi, Mitigasi Bencana Akibat Cuaca Ekstrem, Hasil Belajar, IPAS

**DEVELOPMENT OF AN E-BOOK INTEGRATED WITH SIMULATION  
VIDEOS ON THE TOPIC OF DISASTER MITIGATION DUE TO EXTREME  
WEATHER TO IMPROVE GRADE IV ELEMENTARY STUDENTS LEARNING  
OUTCOMES**

**ABSTRACT**

*This study aims to develop an e-book learning media integrated with simulation videos on the topic of disaster mitigation due to extreme weather and to determine its validity, practicality, and effectiveness in improving the learning outcomes of fourth-grade elementary school students in IPAS (Integrated Science and Social Studies). This research is a development study employing the ADDIE model, which consists of analysis, design, development, implementation, and evaluation stages. The research subjects were fourth-grade students of SD Negeri 1 Penarukan. Data collection methods included observation, interviews, questionnaires, and learning outcome tests. The data were analyzed using qualitative and quantitative descriptive analysis techniques. The results showed that the e-book integrated with simulation videos achieved a “very good” category based on assessments by material and media experts. The practicality of the media was also categorized as “very good” based on teacher and student responses. The effectiveness test using a paired sample t-test showed a significance value of 0.001 ( $< 0.05$ ), indicating a significant difference in learning outcomes before and after the use of the media. Furthermore, the n-gain score test showed an average value of 0.56 (56%), which falls into the moderate category and is interpreted as moderately effective. Based on these findings, the e-book integrated with simulation videos is considered feasible for use as a learning medium in IPAS for elementary schools.*

**Keywords:** *E-Book, Simulation Video, Disaster Mitigation Due to Extreme Weather, Learning Outcomes, IPAS.*