

ABSTRAK

PENGEMBANGAN *e-BOOK* INTERAKTIF BERBASIS REPRESENTASI HORIZONTAL UNTUK MENINGKATKAN KETERAMPILAN BERPIKIR KRITIS DAN LITERASI VISUAL SISWA

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Penelitian ini bertujuan untuk mengembangkan *e-Book* berbasis representasi horizontal yang efektif dalam meningkatkan keterampilan berpikir kritis dan literasi visual siswa. Desain penelitian yang digunakan adalah *Research and Development (R&D)* Borg and Gall. Sampel penelitian terdiri dari kelas kontrol dan eksperimen. Teknik pengambilan sampel menggunakan *purposive sampling*. Instrumen yang digunakan adalah instrument tes dan angket. Analisis data berdasarkan data *n-gain*, *effect size* dan persentase deskriptif tanggapan guru dan siswa.

Hasil penelitian menunjukkan bahwa *e-Book* interaktif hasil pengembangan dinyatakan: (1) dapat meningkatkan keterampilan berpikir kritis dengan kriteria sedang (0,66) dan memberikan pengaruh besar (0,71). Selain itu, *e-Book* hasil pengembangan juga baik dalam meningkatkan literasi visual siswa dengan kriteria sedang (0,67) dan memberikan pengaruh besar (0,73); (2) menarik (90,57%), bermanfaat (96,29%), dan mudah dipahami dari segi bahasa (95,46%) berdasarkan hasil tanggapan siswa dan guru terhadap penggunaan *e-Book* interaktif dalam pembelajaran. Berdasarkan hasil penelitian dan pengembangan, dapat dinyatakan bahwa *e-Book* interaktif berbasis representasi horizontal efektif digunakan menjadi bahan ajar dalam mempelajari materi energi dalam sistem kehidupan.

Kata kunci: *e-Book* interaktif, representasi horizontal, keterampilan berpikir kritis, literasi visual

ABSTRACT

THE DEVELOPMENT OF INTERACTIVE e-BOOK BASED ON HORIZONTAL REPRESENTATION TO IMPROVE STUDENT'S CRITICAL THINKING SKILLS AND VISUAL LITERACY

By

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This study aims to develop an e-book based on horizontal representation which is valid and effective in improving students' critical thinking skills and visual literacy. The design used was Research and Development (R&D) by Borg and Gall. The sample consisted of control and experimental class. The sampling technique used was purposive sampling. The instruments used were test instruments and questionnaires. Data analysis was based on the data of n-gain, effect size and descriptive percentage of students and teacher's responses.

The results of the study indicate that the developed interactive e-Books stated: (1)) improving critical thinking skills with moderate criteria (0.66) and has a large effect (0.71). In addition, the developed e-Book was also good in improving the visual literacy of students with moderate criteria (0.67) and has a large effect (0.73); (2) interesting (90.57%), useful (96.29%), and easy to reach in terms of language (95.46%) based on the results of student responses to the use of interactive e-books in learning. Based on the results of research and development, it can be stated that interactive e-books based on horizontal representations effective of being used as learning materials in studying energy in living systems.

Key word: interactive e-Book, horizontal representations, critical thinking skill, visual literacy