

Fitroh Rozana. 2025. Pengembangan *E-Booklet* IPA Berbasis STEM Konteks Kerupuk Udang Sampang untuk Meningkatkan Berpikir Kritis Siswa. Skripsi, Program Studi Pendidikan IPA, Fakultas Keguruan dan Ilmu Pendidikan, Universitas Trunojoyo Madura. Pembimbing : Nur Qomaria

ABSTRAK

Penelitian bertujuan untuk mengetahui kevalidan, keterbacaan, respons siswa, dan peningkatan berpikir kritis terhadap *e-booklet* IPA berbasis STEM konteks kerupuk udang Sampang. Penelitian ini merupakan penelitian R&D (*Research and Development*) dengan model pengembangan 4D (*Define, Design, Development, dan Disseminate*). Penelitian ini hanya sampai pada tahap *development*. Desain penelitian ini menggunakan *one group pretest posttest*. Penelitian dilakukan di MTs Al-Bukhary dengan populasi penelitian kelas VIII tahun ajaran 2024/2025. Sampel penelitian pada uji perorangan yaitu 3 siswa, uji coba kelompok kecil 8 siswa, dan kelompok besar 16 siswa. Teknik pengumpulan data menggunakan wawancara, angket, tes, dan dokumentasi. Berdasarkan hasil penelitian diperoleh *e-booklet* IPA yang dikembangkan memperoleh hasil validasi ahli media sebesar 84,90% dengan kriteria sangat valid dan hasil validasi ahli materi sebesar 88,89% dengan kriteria sangat valid, keterbacaan *e-booklet* IPA memperoleh hasil 84,08% dengan kriteria sangat baik, respons siswa terhadap *e-booklet* IPA memperoleh hasil 80,16% dengan kriteria sangat baik, berpikir kritis siswa mengalami peningkatan setelah menggunakan *e-booklet* IPA saat pembelajaran dengan skor *N-Gain* 0,35 dengan kriteria sedang. Simpulan pada penelitian ini yaitu *e-booklet* IPA berbasis STEM konteks kerupuk udang Sampang valid untuk digunakan serta dapat membantu peningkatan berpikir kritis siswa.

Kata Kunci: *E-booklet*, Berpikir Kritis, Kerupuk Udang

Fitroh Rozana. 2025. Development of STEM-Based Science E-Booklet in the Context of Sampang Shrimp Crackers to Improve Students' Critical Thinking. Thesis, Science Education Study Program, Faculty of Teacher Training and Education, Trunojoyo University, Madura. Advisor: Nur Qomaria

ABSTRACT

The research aims to determine the validity, readability, student response, and increase critical thinking towards science e-booklets based on the Sampang shrimp cracker context stem. This research is an R&D (Research and Development) research with a 4D development model (Define, Design, Development, and Disseminate). This research only reached the development stage. This research design uses one group pretest posttest. The research was conducted at MTs Al-Bukhary with a research population of classes VIII and IX for the 2024/2025 academic year. The research sample for individual testing was 3 students, small group testing 8 students, and large group testing 16 students. Data collection techniques use interviews, questionnaires, tests and documentation. Based on the research results, it was obtained that the science e-booklet that was developed obtained a media expert validation result of 84.90% with very valid criteria and a material expert validation result of 88.89% with very valid criteria, the readability of the science e-booklet obtained a result of 84.08% with very good criteria, student response to the science e-booklet obtained a result of 80.16% with very good criteria, students' critical thinking increased after using the science e-booklet during learning with an N-Gain score. 0.35 with medium criteria. The conclusion of this research is that the STEM-based science e-booklet in the context of Sampang shrimp crackers is valid for use and can help improve students' critical thinking.

Keywords: *E-booklet, Critical Thinking, Shrimp Crackers*