

Ayu Azizah Maharani. 2026. Pengembangan *E-booklet* Berbasis Etno-STEM Untuk Melatihkan *Attitude Towards* STEM Dan Pemahaman Konsep. Skripsi, Program Studi Pendidikan IPA, Fakultas Keguruan dan Ilmu Pendidikan, Universitas Trunodjoyo Madura. Pembimbing: Laila Khamsatul Muharrami.

ABSTRAK

Attitude towards STEM dan pemahaman konsep peserta didik masih perlu ditingkatkan melalui penggunaan bahan ajar yang menarik, kontekstual, dan terintegrasi dengan budaya lokal. Penelitian ini bertujuan untuk mengembangkan *e-booklet* berbasis Etno-STEM yang layak digunakan dalam pembelajaran untuk meningkatkan *attitude towards* STEM dan pemahaman konsep peserta didik. Penelitian ini merupakan penelitian dan pengembangan (Research and Development/R&D) dengan menggunakan model ADDIE yang meliputi tahap Analysis, Design, Development, Implementation, dan Evaluation. Subjek penelitian adalah peserta didik kelas VII D SMP Negeri 2 Tembelang yang berjumlah 28 peserta didik. Instrumen penelitian meliputi lembar validasi, angket keterbacaan, angket respons peserta didik, angket *attitude towards* STEM, serta tes pemahaman konsep. Hasil penelitian menunjukkan bahwa *e-booklet* berbasis Etno-STEM memperoleh persentase validitas materi sebesar 87,5% dengan kategori sangat valid dan validitas media sebesar 100% dengan kategori sangat valid. Persentase keterbacaan sebesar 88,7% dengan kategori sangat baik, dan respons peserta didik sebesar 75,67% dengan kategori baik. Peningkatan *attitude towards* STEM memperoleh nilai N-gain sebesar 0,70 dengan kategori sedang, dan nilai peningkatan pemahaman konsep memperoleh nilai N-gain sebesar 0,52 dengan kategori sedang. Berdasarkan hasil penelitian, *e-booklet* berbasis Etno-STEM dinyatakan layak digunakan dalam pembelajaran untuk melatih *attitude towards* STEM dan pemahaman konsep peserta didik.

Kata kunci: ADDIE, *attitude towards* STEM, e- booklet, etno-STEM, pemahaman konsep.

Ayu Azizah Maharani. 2026. Development of Ethno-STEM Based E-booklet to Train Attitude Towards STEM and Concept Understanding. Thesis, Science Education Study Program, Faculty of Teacher Training and Education, Trunodjoyo University, Madura. Advisor: Laila Khamsatul Muharrami

ABSTRACT

Attitude towards STEM and students' conceptual understanding still need to be improved through the use of interesting, contextual, and integrated teaching materials with local culture. This study aims to develop an Ethno-STEM-based e-booklet that is suitable for use in learning to improve attitudes towards STEM and students' conceptual understanding. This research is a research and development (R&D) using the ADDIE model which includes the stages of Analysis, Design, Development, Implementation, and Evaluation. The research subjects were 28 students of class VII D of SMP Negeri 2 Tembelang. The research instruments included a validation sheet, a readability questionnaire, a student response questionnaire, an attitude towards STEM questionnaire, and a conceptual understanding test. The results showed that the Ethno-STEM-based e-booklet obtained a material validity percentage of 87.5% with a very valid category and a media validity of 100% with a very valid category. The readability percentage was 88.7%, categorized as very good, and the student response was 75.67%, categorized as good. The increase in attitude towards STEM obtained an N-gain value of 0.70, categorized as moderate, and the increase in conceptual understanding obtained an N-gain value of 0.52, categorized as moderate. Based on the research results, the Ethno-STEM-based e-booklet was declared suitable for use in learning to train students' attitudes towards STEM and conceptual understanding.

Keywords: *ADDIE, attitude towards, e-booklet, Etno-STEM, understanding the concept.*