

ABSTRAK

Yuna Elfany, NIM 4211131012 (2025). Pengembangan E-LKPD (Lembar Kerja Peserta Didik Elektronik) Terintegrasi Etno-STEM (*Science, Technology, Engineering, and Mathematics*) pada Materi Laju Reaksi.

Penelitian ini bertujuan untuk mengetahui analisis kebutuhan peserta didik, tingkat kelayakan, praktikalitas, dan respon keterbacaan peserta didik terhadap E-LKPD (Lembar Kerja Peserta Didik Elektronik) terintegrasi Etno-STEM (*Science, Technology, Engineering, and Mathematics*). Penelitian pengembangan ini menggunakan model pengembangan 4-D yang dikembangkan oleh S. Thagarajan, Dorothy S. Semmel, dan Melvin I Semmel. Model pengembangan 4-D memiliki empat tahap yaitu tahap pendefinisian (*Define*), tahap perancangan (*Design*), tahap pengembangan (*Develop*), dan tahap penyebaran (*Disseminate*), namun dibatasi hanya sampai 3-D yaitu (*Define*), tahap perancangan (*Design*), tahap pengembangan (*Develop*). Adapun subjek pada penelitian ini yaitu 1 orang validator instrumen non tes, 3 orang validator ahli materi dan ahli media, 5 orang guru kimia, dan peserta didik kelas XI-1, XI-2, dan XI-3 SMA Negeri 1 Kisaran dengan jumlah 90 orang.. Instrumen pengumpulan data berupa lembar wawancara, lembar penilaian angket, lembar penilaian E-LKPD oleh validator, lembar angket praktikalitas oleh guru, dan lembar angket respon keterbacaan peserta didik yang dianalisis dengan formula kappa kohen. Berdasarkan hasil penelitian diperoleh analisis peserta didik yang menyetujui bahwa perlu dikembangkan bahan ajar berupa E-LKPD (Lembar Kerja Peserta Didik Elektronik) terintegrasi Etno-STEM (*Science, Technology, Engineering, and Mathematics*) pada materi laju reaksi. Kemudian, penilaian oleh ahli materi terhadap E-LKPD sebesar 0,84 dengan kategori sangat layak, penilaian oleh ahli media terhadap E-LKPD sebesar 0,85 dengan kategori sangat layak, tingkat praktikalitas oleh guru terhadap E-LKPD sebesar 0,95 dengan kategori sangat praktis, dan hasil respon keterbacaan peserta didik terhadap E-LKPD sebesar 0,90 dengan kategori sangat tinggi.

Kata Kunci: E-LKPD, Etno-STEM, Laju Reaksi



ABSTRACT

Yuna Elfany, NIM 4211131012. Development of Ethno-STEM (Science, Technology, Engineering, and Mathematics) Integrated E-LKPD (Electronic Learner Worksheet) on Reaction Rate Material.

This study aims to determine the analysis of students' needs, the level of feasibility, practicality, and students' readability response to E-LKPD (Electronic Learners' Worksheet) integrated with Ethno-STEM (Science, Technology, Engineering, and Mathematics). This development research uses the 4-D development model developed by S. Thagarajan, Dorothy S. Semmel, and Melvin I Semmel. The 4-D development model has four stages, namely the Define, the design, the Develop, and the Disseminate, but is limited to only 3-D, namely Define, Design, and the Develop. The subjects in this study were 1 non-test instrument validator, 3 material expert validators and media experts, 5 chemistry teachers, and students in grades XI-1, XI-2, and XI-3 SMA Negeri 1 Kisaran with a total of 90 people. Data collection instruments in the form of interview sheets, questionnaire assessment sheets, E-LKPD assessment sheets by validators, practicality questionnaires by teachers, and student readability response questionnaires analyzed by the kappa cohen formula. Based on the results of the study, it was obtained an analysis of students who agreed that it was necessary to develop teaching materials in the form of E-LKPD (Electronic Learner Worksheet) integrated with Ethno-STEM (Science, Technology, Engineering, and Mathematics) on reaction rate material. Then, the assessment by material experts on E-LKPD is 0.84 with a very feasible category, the assessment by media experts on E-LKPD is 0.85 with a very feasible category, the level of practicality by teachers on E-LKPD is 0.95 with a very practical category, and the results of students' readability response to E-LKPD are 0.90 with a very high category.

Kata Kunci: E-LKPD, Etno-STEM, Reaction Rate

