

ABSTRAK

Zeilla Ramadhani Zain, NIM 4213131078 (2025), Pengembangan Lembar Kerja Peserta Didik Elektronik (E-LKPD) Berbasis *Problem Based Learning* untuk Meningkatkan Hasil Belajar Siswa pada Materi Laju Reaksi

Tujuan penelitian ini yaitu untuk mengetahui analisis kebutuhan e-LKPD, kelayakan e-LKPD, hasil belajar siswa, respon guru, dan respon siswa terhadap e-LKPD berbasis *problem based learning* yang dikembangkan. Metode pengembangan yang dilakukan adalah metode *research and development* (R&D) dengan model pengembangan 4D (*Define, Design, Develop, and Disseminate*). Penelitian ini dibatasi sampai pada tahap *develop*. Desain penelitian menggunakan *one group pretest-posttest design*. Subjek penelitian sebanyak 36 siswa di MAS Plus Al-Ulum Medan. Teknik pengumpulan data yang digunakan wawancara guru, analisis kebutuhan siswa, lembar validasi media dan materi, instrumen tes hasil belajar, angket respon guru serta respon siswa. Berdasarkan hasil analisis kebutuhan e-LKPD di MAS Plus Al-Ulum Medan menyatakan membutuhkan bahan ajar e-LKPD berbasis *problem based learning* dan sebanyak 100% siswa menyatakan setuju dikembangkan e-LKPD berbasis *problem based learning* sebagai penunjang kegiatan pembelajaran. Hasil uji kelayakan oleh validator ahli materi dan media didapatkan rata-rata persentase yaitu sebesar 84,10% dengan kriteria “sangat layak”. Hasil uji n-gain didapatkan yaitu sebesar 0,75% dengan kriteria “tinggi”. Hasil respon guru didapatkan rata-rata persentase yaitu sebesar 90,90% dengan kriteria “sangat bagus”. Dan hasil respon siswa didapatkan rata-rata persentase yaitu sebesar 88,05% dengan kriteria “sangat bagus”. Maka dapat disimpulkan bahwa e-LKPD berbasis *problem based learning* yang dikembangkan layak dan bagus untuk digunakan dalam proses pembelajaran dan dapat meningkatkan hasil belajar siswa pada materi laju reaksi.

Kata Kunci : E-LKPD, *Problem Based Learning*, Hasil Belajar, Laju Reaksi



ABSTRACT

Zeilla Ramadhani Zain, NIM 4213131078 (2025), Development of Electronic Student Worksheets (E-LKPD) Based on Problem Based Learning to Improve Student Learning Outcomes on Reaction Rate Material

The purpose of this research is to determine the analysis of the need for e-LKPD, the feasibility of e-LKPD, student learning outcomes, teacher responses, and student responses to the problem-based e-LKPD learning being developed. The development method used is the research and development (R&D) method with the 4D development model (Define, Design, Develop and Disseminate). This research is limited to the development stage. The research design uses a one group pretest-posttest design. The research subjects were 36 MAS Plus AI-Ulum Medan students. The data collection techniques used were teacher interviews, student needs analysis, media and material validation sheets, learning outcome test instruments, teacher response questionnaires and student responses. Based on the results of the e-LKPD needs analysis at MAS Plus AI-Ulum Medan, it was stated that they needed e-LKPD teaching materials based on problem based learning and as many as 100% of students agreed to develop them. e-LKPD based on problem based learning to support learning activities. The results of the feasibility test by material and media expert validators obtained an average percentage of 84.10% with the criteria "very feasible". The n-gain test results obtained were 0.75% with the "high" criteria. The results of teacher responses obtained an average percentage of 90.90% with the criteria "very good". And the results of student responses obtained an average percentage of 88.05% with the criteria "very good". So it can be concluded that the problem-based e-LKPD developed is suitable and good for use in the learning process and can improve student learning outcomes on reaction rate material.

Keywords: E-LKPD, Problem Based Learning, Learning Outcomes, Reaction Rate

