

ABSTRAK

Tiara Atika Dhamira, NIM 4193121042 (2023). Pengembangan *E-LKPD* Berbasis *Problem Based Learning* (PBL) Materi Momentum, Impuls, dan Tumbukan pada Kelas X Semester Genap di SMA S Abdi Negara Binjai T.A 2022/2023.

Penelitian ini bertujuan untuk mengetahui tingkat kelayakan, kepraktisan, dan keefektifan dari *e-LKPD* yang telah dikembangkan berbasis *Problem Based Learning* pada materi momentum, impuls, dan tumbukan. Jenis penelitian ini merupakan penelitian pengembangan atau *Research and Development* (R&D) menggunakan model 4D Thiagarajan. Hasil dari penelitian ini adalah *e-LKPD* dikategorikan “sangat layak” dengan rata-rata nilai kelayakan 96,63% ditinjau dari hasil validasi materi dan media. *E-LKPD* dikategorikan “sangat praktis” ditinjau dari hasil penilaian yang dilakukan oleh pendidik dan 25 siswa kelas X MIPA 2 dengan rata-rata kepraktisan 92,38%. Penilaian keefektifan *e-LKPD* melalui kegiatan *pretest-posttest* diperoleh skor *n-Gain* sebesar 0,87 berkategori “tinggi”. Dengan nilai rata-rata *pretest* 36,8 dan nilai rata-rata *posttest* sebesar 92. Dengan demikian disimpulkan bahwa *e-LKPD* yang dikembangkan layak, praktis, dan efektif digunakan dalam proses pembelajaran materi momentum, impuls, dan tumbukan.

Kata Kunci: Pengembangan, *e-LKPD*, *Problem Based Learning*.

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This research aims to know the level of feasibility, practicality, and effectiveness of the e-LKPD that has been developed based on Problem Based Learning on momentum, impulse, and collision material. The type of this research is Research and Development (R&D) using Thiagara's 4D model. The results of this research are e-LKPD categorized as "very feasible" with an average feasibility score of 96.63% in terms of material and media validation. E-LKPD is categorized as "very practical" in terms of the results of the assessment conducted by educators and 25 students of class X MIPA 2 SMAS Abdi Negara Binjai with an average practicality of 92.38%. With an average practicality of 92.38%. Assessment of the effectiveness of e-LKPD through pretest-posttest activities obtained an n-Gain score of 0.87 categorized as "high". With an average pretest score is 36.8 and an average posttest score is 92. Thus concluded that the developed e-LKPD is feasible, practical, and effective used in the learning process of momentum, impulse, and collision material.

Keywords: Develop, e-LKPD, Problem Based Learning.