

Isti'anatul Mazidah. 2025. *Pengembangan Game Edukasi Literasi Sains Pada Materi Energi Terbarukan Di SMP Negeri 3 Bangkalan*. Skripsi, Program Studi Pendidikan Informatika, Fakultas Keguruan dan Ilmu Pendidikan, Universitas Trunojoyo Madura. Pembimbing Dr. Sigit Dwi Saputro, S.Pd., M.Pd.

ABSTRAK

Penelitian ini bertujuan untuk mendeskripsikan proses pengembangan media pembelajaran berupa *game* edukasi berbasis literasi sains pada materi energi terbarukan, serta mengetahui kelayakan dan respon siswa terhadap media yang dikembangkan. Penelitian dilaksanakan di SMP Negeri 3 Bangkalan dengan menggunakan model pengembangan ADDIE (Analysis, Design, Development, Implementation, Evaluation). Media pembelajaran dikembangkan dalam bentuk *game* edukatif interaktif berbasis Android yang dirancang agar siswa lebih mudah memahami konsep energi terbarukan secara menyenangkan. Instrumen yang digunakan dalam penelitian ini terdiri dari lembar validasi ahli dan angket respon siswa. Validasi dilakukan oleh dua ahli, yaitu ahli materi dan ahli media. Hasil validasi ahli materi menunjukkan skor kelayakan sebesar 88%, dan validasi ahli media sebesar 96%, yang keduanya berada dalam kategori sangat valid. Uji coba pengguna dilakukan melalui tiga tahap, yaitu uji coba perorangan, kelompok kecil, dan kelompok besar. Hasilnya menunjukkan bahwa presentasi nilai dari penyajian media dalam uji coba perorangan mencapai 93%, uji coba kelompok kecil 93%, dan kelompok besar 90%. Aspek literasi sains siswa tampak berkembang melalui keterlibatan aktif dan kemudahan dalam memahami konsep. Dengan demikian, media pembelajaran *game* edukasi literasi sains ini dinyatakan sangat layak digunakan sebagai alat bantu pembelajaran dan dapat memberikan kontribusi terhadap pemahaman siswa dalam mempelajari materi energi terbarukan.

Kata Kunci: ADDIE, *Game* Edukasi, Literasi Sains

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ABSTRACT

This study aims to describe the process of developing learning media in the form of educational *games* based on scientific literacy on renewable energy material, as well as to determine the feasibility and student responses to the developed media. The study was conducted at SMP Negeri 3 Bangkalan using the ADDIE (Analysis, Design, Development, Implementation, Evaluation) development model. Learning media was developed in the form of an interactive educational *game* based on Android designed to make it easier for students to understand the concept of renewable energy in a fun way. The instruments used in this study consisted of expert validation sheets and student response questionnaires. Validation was carried out by two experts, namely material experts and media experts. The results of the material expert validation showed a feasibility score of 88%, and the media expert validation of 96%, both of which were in the very valid category. User trials were conducted in three stages, namely individual trials, small groups, and large groups. The results showed that the presentation value of the media presentation in individual trials reached 93%, small group trials 93%, and large groups 90%. The scientific literacy aspect of students appeared to develop through active involvement and ease in understanding concepts. Thus, this science literacy educational *game* learning media is declared very suitable for use as a learning aid and can contribute to students' understanding in studying renewable energy material.

Keywords: ADDIE, Educational *Game*, Science Literacy