

PENGEMBANGAN VIDEO 3 DIMENSI “SADAR SAMPAH” UNTUK ANAK SEKOLAH DASAR

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ABSTRAK

Penanganan krisis sampah menuntut adanya instilasi nilai-nilai kelestarian lingkungan sejak fase awal perkembangan anak, demi merawat kebersihan dan daya dukung ekosistem secara berkesinambungan. Meskipun demikian, pemahaman terkait manajemen sampah pada tingkat sekolah dasar masih terpusat pada metode konvensional, serta kurang ditunjang media instruksional yang selaras dengan preferensi peserta didik kelas rendah. Melalui pemfokusan pada peserta didik kelas I dan II sekolah dasar, penelitian ini memformulasi media edukasi Tiga Dimensi Sadar Sampah. Penyusunan media tersebut memadupadankan prinsip-prinsip *Sustainable Development Goals* (SDGs), yang mencakup Tujuan 11 (Kota dan Komunitas yang Berkelanjutan), Tujuan 12 (Konsumsi dan Produksi yang Bertanggung Jawab), serta Tujuan 13 (Penanganan Perubahan Iklim). Pendekatan riset ini mengaplikasikan metodologi *Research and Development* (R&D) berlandaskan skema *Multimedia Development Life Cycle* (MDLC) yang mencakup alur *Concept, Design, Material Collecting, Assembly, Testing*, serta *Distribution*. Penataan video dikonstruksi melalui pemanfaatan peranti Blender, Quixel Bridge, Adobe Premiere Pro, dan CapCut yang membuahkan luaran berwujud berkas MP4. Adapun tingkat kelayakan produk diuji melalui proses verifikasi oleh dua pakar media dan dua pakar materi berpatokan pada kalkulasi koefisien Gregory. Penilaian pakar media serta pakar substansi menghasilkan koefisien Gregory senilai 1,00 dengan taraf Sangat Tinggi (Valid). Angka tersebut membuktikan bahwa Video 3 Dimensi Sadar Sampah meraih tingkat kesahihan yang sangat mumpuni berdasarkan konsensus para ahli. Oleh karena itu, riset ini membuahkan Video 3 Dimensi Sadar Sampah sebagai wahana edukatif yang dirancang secara terstruktur melalui paradigma MDLC (*Multimedia Development Life Cycle*) serta telah mengantongi verifikasi keabsahan dari pakar media maupun pakar substansi.

Kata kunci: Animasi 3D, MDLC, *Sustainable Development Goals*, Pengelolaan Sampah

DEVELOPMENT OF A 3D VIDEO ON "WASTE AWARENESS" FOR ELEMENTARY SCHOOL CHILDREN

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ABSTRACT

Addressing the waste crisis requires instilling values of environmental sustainability from the early stages of child development to ensure the ongoing maintenance of cleanliness and ecosystem carrying capacity. However, current approaches to waste management education at the primary school level remain focused on conventional methods and lack instructional media tailored to the preferences of lower-grade students. Focusing on first- and second-grade primary students, this study developed a 3D educational video focused on waste awareness. The development of this medium integrates principles from the Sustainable Development Goals (SDGs), specifically Goal 11 (Sustainable Cities and Communities), Goal 12 (Responsible Consumption and Production), and Goal 13 (Climate Action). The research employed a Research and Development (R&D) methodology based on the Multimedia Development Life Cycle (MDLC) framework, comprising the stages of Concept, Design, Material Collecting, Assembly, Testing, and Distribution. The video was created using Blender, Quixel Bridge, Adobe Premiere Pro, and CapCut, resulting in an MP4 file. Product feasibility was assessed through a verification process involving two media experts and two subject matter experts, utilizing the Gregory coefficient calculation. The assessments yielded a Gregory coefficient of 1.00, indicating a "Very High" level of validity. This result demonstrates that the 3D waste awareness video achieved a high degree of validity based on expert consensus. Consequently, this research has produced a 3D waste awareness video—an educational tool systematically designed using the MDLC paradigm—that has been validated by both media and subject matter experts.

Keywords: 3D animation, MDLC, Sustainable Development Goals, waste management