

ABSTRAK

Penelitian ini dilatarbelakangi oleh meningkatnya paparan digital anak sekolah dasar yang belum selalu disertai kemampuan berpikir kritis, aman, etis, dan bertanggung jawab. Penelitian ini bertujuan mengembangkan, mengimplementasikan, dan mengevaluasi EduGana sebagai ekosistem pembelajaran adaptif-pervasif berbasis Design-Based Implementation Research (DBIR) untuk memperkuat literasi digital dan literasi moral siswa sekolah dasar kelas tinggi di Bali.

Penelitian menggunakan pendekatan DBIR dengan evaluasi one-group pretest-posttest. Subjek penelitian adalah 84 siswa dari SD No. 2 Tuban, SD No. 5 Ungasan, dan SD No. 8 Ungasan. Data dikumpulkan melalui angket literasi digital dan literasi moral sebelum–sesudah, validasi ahli, observasi, rubrik fase, penilaian aplikasi, video/jurnal refleksi, rencana, respons terbuka siswa, serta video testimoni guru pendamping. Video testimoni guru dianalisis secara kualitatif dengan menggunakan konstruk *perceived usefulness* dan *perceived ease of use* sebagai lensa interpretatif, bukan sebagai pengukuran kuantitatif TAM.

Data dianalisis secara deskriptif dan triangulatif melalui penggabungan bukti hasil, bukti proses, bukti refleksi, dan bukti implementasi. Hasil menunjukkan rerata literasi digital meningkat dari 3,79 menjadi 3,87, sedangkan rerata literasi moral meningkat dari 3,93 menjadi 4,02 pada skala 1-5. Uji pendukung menunjukkan kenaikan dengan ukuran efek kecil, sehingga efektivitas EduGana dibaca secara proporsional sebagai kecenderungan efektivitas implementatif dan practical significance, bukan klaim kausal eksperimental murni.

EduGana layak diimplementasikan sebagai ruang belajar digital-moral yang reflektif, kontekstual, dan berbasis budaya lokal. Bukti yang diperoleh konsisten dengan kemungkinan mekanisme penguatan melalui integrasi cerita budaya, aktivitas literasi digital, refleksi moral, video/jurnal, rencana, pendampingan guru, scaffolding, dan pengelolaan beban kognitif. Kontribusi utama penelitian ini adalah Model Konseptual Ekosistem EduGana sebagai model orkestrasi pedagogis digital-etis berbasis budaya lokal untuk penguatan literasi digital dan moral siswa sekolah dasar.

Kata kunci: EduGana, DBIR, literasi digital, literasi moral, Tri Hita Karana, adaptif-pervasif, scaffolding.

ABSTRACT

This study was motivated by the increasing digital exposure of elementary school children, which is not always accompanied by the ability to think critically and act safely, ethically, and responsibly. This study aimed to develop, implement, and evaluate EduGana as an adaptive-pervasive learning ecosystem based on Design-Based Implementation Research (DBIR) to strengthen the digital literacy and moral literacy of upper elementary school students in Bali.

The study employed a DBIR approach with a one-group pretest–posttest evaluation. The participants consisted of 84 students from SD No. 2 Tuban, SD No. 5 Ungasan, and SD No. 8 Ungasan. Data were collected through digital literacy and moral literacy questionnaires administered before and after the intervention, expert validation, observations, phase rubrics, application assessments, reflective videos/journals, badges, students' open-ended responses, and testimonial videos from accompanying teachers. The teachers' testimonial videos were analyzed qualitatively using the constructs of perceived usefulness and perceived ease of use as interpretive lenses rather than as quantitative measurements based on the Technology Acceptance Model (TAM).

The data were analyzed descriptively and triangulatively by integrating outcome evidence, process evidence, reflective evidence, and implementation evidence. The results showed that the mean digital literacy score increased from 3.79 to 3.87, while the mean moral literacy score increased from 3.93 to 4.02 on a 1–5 scale. Supporting statistical tests indicated improvements with small effect sizes; therefore, the effectiveness of EduGana is interpreted proportionally as a tendency toward implementation effectiveness and practical significance rather than as a claim of pure experimental causality.

EduGana is feasible to implement as a reflective, contextual, and locally culturally grounded digital-moral learning space. The evidence obtained is consistent with possible strengthening mechanisms through the integration of cultural stories, digital literacy activities, moral reflection, videos/journals, badges, teacher mentoring, scaffolding, and cognitive load management. The main contribution of this study is the EduGana Ecosystem Conceptual Model, a locally culture-based digital-ethical pedagogical orchestration model for strengthening the digital and moral literacy of elementary school students.

Keywords: EduGana, DBIR, digital literacy, moral literacy, Tri Hita Karana, adaptive-pervasive, scaffolding.