

**PERANCANGAN *USER INTERFACE* SISTEM INFORMASI
LABORATORIUM GIGI (SILABGI) MENGGUNAKAN METODE
SYSTEM DEVELOPMENT LIFE CYCLE (SDLC) DI POLTEKKES
KEMENKES YOGYAKARTA**

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ABSTRAK

Latar Belakang: Laboratorium Pelayanan Asuhan di Jurusan Kesehatan Gigi Poltekkes Kemenkes Yogyakarta belum memiliki sistem informasi digital yang terintegrasi. Seluruh proses pendaftaran pasien, pencatatan hasil pemeriksaan, dan dokumentasi praktikum masih dilakukan secara manual dan *hybrid*, sehingga menyebabkan pengelolaan data yang tidak efisien serta sulitnya sinkronisasi antara dokumen fisik dan digital.

Tujuan: Merancang *prototype user interface* Sistem Informasi Laboratorium Gigi (SILABGI) menggunakan metode *System Development Life Cycle* (SDLC) di Poltekkes Kemenkes Yogyakarta.

Metode: Penelitian ini menggunakan jenis *Research and Development* (R&D) dengan pendekatan kualitatif dan desain SDLC model *prototype* yang diintegrasikan dengan prinsip *User-Centered Design* (UCD). Subjek penelitian terdiri dari 3 informan pada tahap analisis kebutuhan dan 8 pengguna pada tahap evaluasi menggunakan metode *usability testing model concurrent think-aloud* dalam dua tahap pengujian.

Hasil: *Prototype* SILABGI berhasil dirancang mencakup empat peran pengguna, yaitu petugas pendaftaran, operator, dosen pembimbing, dan admin, dengan fitur yang disesuaikan dengan kebutuhan masing-masing peran. Pada pengujian kedua, seluruh informan menyatakan bahwa *prototype* SILABGI tidak perlu ada perbaikan lagi dan telah diterima sebagai *user interface* SILABGI.

Kesimpulan: *Prototype user interface* SILABGI berhasil dirancang menggunakan metode SDLC model *prototype* yang terintegrasi dengan prinsip UCD dan dinyatakan diterima oleh seluruh calon pengguna melalui evaluasi *usability testing model concurrent think-aloud*.

Kata Kunci: *User interface*, sistem informasi, laboratorium gigi, SDLC, *usability testing*, Poltekkes Kemenkes Yogyakarta.

**DESIGN OF THE USER INTERFACE FOR THE DENTAL LABORATORY
INFORMATION SYSTEM (SILABGI) USING THE SYSTEM
DEVELOPMENT LIFE CYCLE (SDLC) METHOD AT THE POLTEKKES
KEMENKES YOGYAKARTA**

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ABSTRACT

Background: *The Dental Practice Laboratory at Poltekkes Kemenkes Yogyakarta lacks an integrated digital information system. All processes, including patient registration, examination recording, and practicum documentation, are still conducted manually and in a hybrid manner, resulting in inefficient data management and difficulties in synchronizing physical and digital documents.*

Objective: *To design a prototype user interface for the Dental Laboratory Information System (SILABGI) at Poltekkes Kemenkes Yogyakarta using the System Development Life Cycle (SDLC) method.*

Method: *This study used a Research and Development (R&D) design with a qualitative approach and the SDLC prototype model integrated with User-Centered Design (UCD) principles. Subjects consisted of 3 informants for the needs analysis phase and 8 users for the evaluation phase using concurrent think-aloud usability testing conducted in two rounds.*

Results: *The SILABGI prototype was successfully designed to accommodate four user roles, namely registration staff, operators, supervising lecturers, and administrators, with features tailored to the specific needs of each role. During the second round of testing, all informants indicated that no further revisions were required and accepted the SILABGI prototype as the final user interface design.*

Conclusion: *The SILABGI user interface prototype was successfully designed using the SDLC prototype model integrated with UCD principles and was deemed acceptable by all prospective users through concurrent think-aloud usability testing.*

Keywords: *User Interface, Information System, Dental Laboratory, SDLC, Usability Testing, Poltekkes Kemenkes Yogyakarta.*