

ABSTRAK

Latar belakang: Dinas Kesehatan Kabupaten Sleman mengalami inefisiensi dalam analisis data penyakit karena *Dashboard* visualisasi tidak aktif. Analisis tren dari laporan bulanan (LB1) masih dilakukan secara manual dengan Microsoft *Excel*, yang memakan waktu, rentan kesalahan, dan menghambat pengambilan kebijakan berbasis bukti.

Tujuan: Penelitian ini bertujuan merancang dan mengembangkan sistem *Dashboard* visualisasi berbasis web yang interaktif, informatif, dan mudah digunakan untuk mengatasi permasalahan analisis manual serta mendukung pengambilan keputusan di Dinas Kesehatan Sleman.

Metode: Penelitian ini menggunakan metode *Research and Development* (R&D) dengan pendekatan *User-Centered Design* (UCD). Sistem dikembangkan menggunakan *Python* dengan framework *Plotly Dash* dan basis data PostgreSQL. Kebutuhan pengguna dikumpulkan melalui wawancara dan observasi, lalu dimodelkan menggunakan UML dan wireframe. Evaluasi sistem dilakukan dalam dua tahap: *blackbox testing* untuk menguji fungsionalitas dan *System Usability Scale* (SUS) untuk menilai kegunaan dari sudut pandang pengguna.

Hasil: Penelitian menghasilkan sistem *Dashboard* fungsional yang menyajikan data 10 besar penyakit secara interaktif, dilengkapi fitur filter dinamis, visualisasi tren komparatif, dan ekspor laporan *PDF*. Pengujian *blackbox* menunjukkan seluruh fungsionalitas berjalan sesuai skenario, sedangkan evaluasi SUS menghasilkan skor rata-rata 90, termasuk kategori *Excellent* (Grade A).

Kesimpulan: Sistem *Dashboard* visualisasi ini terbukti efektif, fungsional, dan sangat mudah digunakan dalam analisis tren penyakit. Sistem menjawab kebutuhan pengguna dan berpotensi besar meningkatkan efisiensi serta akurasi pengambilan kebijakan kesehatan di Dinas Kesehatan Sleman.

Kata Kunci: *Dashboard*, Visualisasi Data, Tren Penyakit, *User-Centered Design* (UCD), *System usability scale* (SUS), Dinas Kesehatan.

ABSTRACT

Background: *The Sleman Regency Health Office experiences inefficiencies in disease data analysis due to the absence of an active visualization Dashboard. Monthly disease reports (LB1) are still processed manually using Microsoft Excel, which is time-consuming, error-prone, and hinders timely evidence-based decision-making.*

Objective: *This study aims to design and develop an interactive, informative, and user-friendly web-based Dashboard to address the limitations of manual data analysis and enhance disease trend monitoring at the Sleman Health Office.*

Methods: *A Research and Development (R&D) methodology was adopted using a User-Centered Design (UCD) approach. System development utilized Python with the Plotly Dash framework and PostgreSQL for data storage. User requirements were gathered through interviews and observations, and then translated into UML diagrams and wireframes. System evaluation was conducted in two phases: blackbox testing to validate functionality and System Usability Scale (SUS) testing to assess usability.*

Results: *The resulting Dashboard enables the interactive presentation of the top 10 diseases, supported by dynamic filters, comparative trend analysis, and PDF export capabilities. Blackbox testing verified that all features performed according to specifications. Usability testing involving three users yielded SUS scores of 90, 92.5, and 87.5, with an average of 90, indicating Excellent usability in terms of ease of use, interface clarity, and overall user satisfaction.*

Conclusion: *The Dashboard is functional, efficient, and well-received by users, significantly improving disease data analysis at the Sleman Health Office. Feedback will guide future improvements.*

Keywords: *Dashboard, Data Visualization, Disease Trends, User-Centered Design (UCD), System Usability Scale (SUS), Health Office.*