

M. Wildan Alvian Prastya, 2025. *Pengembangan Sistem Informasi Bimbingan Konseling dan Monitoring Siswa Berbasis Web di SMPN 22 Surabaya*. Skripsi, Program Studi Pendidikan Informatika, Fakultas Keguruan dan Ilmu Pendidikan, Universitas Trunojoyo Madura. Pembimbing: Laili Cahyani S. Kom., M. Kom.

Abstrak

Penelitian ini bertujuan mengembangkan sistem informasi bimbingan konseling dan *monitoring* siswa berbasis web di SMPN 22 Surabaya. Latar belakang penelitian ini adalah masih digunakannya metode manual dalam pencatatan kegiatan bimbingan konseling, yang mengakibatkan kurangnya efisiensi pengelolaan data, risiko kehilangan informasi, serta rendahnya keterlibatan wali murid. Sistem ini dirancang untuk empat jenis pengguna, yaitu admin, guru BK, siswa, dan wali murid. Fitur yang tersedia meliputi pencatatan prestasi dan pelanggaran siswa, pengajuan serta riwayat konseling secara digital. Metode pengembangan yang digunakan adalah model *Waterfall*, meliputi tahap analisis kebutuhan, desain sistem, implementasi, pengujian, dan pemeliharaan. Pengumpulan data dilakukan melalui wawancara dengan guru BK. Instrumen yang digunakan dalam penelitian ini yaitu instrument pengujian functional suitability, instrument usability dan instrument portability. Pengujian functionality dengan metode black box testing menunjukkan keberhasilan 100%, menandakan seluruh fungsi sistem berjalan sesuai harapan. Pengujian usability oleh 30 responden menghasilkan skor kelayakan 90.67% (kategori sangat layak). Pada aspek performance efficiency, GTMetrix mencatat Grade A dengan skor performa 95%, struktur 86%, dan waktu muat 1,1 detik, jauh di bawah ambang batas 10 detik. Pengujian portability pada tiga browser (Chrome, Edge, Opera) juga menunjukkan keberhasilan 100% tanpa kendala fungsional, sehingga dikategorikan sangat baik. Kesimpulannya, sistem ini mampu meningkatkan efisiensi, mendukung proses konseling, dan memperkuat peran wali murid.

Kata Kunci: sistem informasi, bimbingan konseling, *monitoring* siswa, web, *waterfall*, *ISO 25010*.

M. Wildan Alvian Prastya, 2025. Development of Web-Based Student Monitoring and Counseling Information System at SMPN 22 Surabaya. Thesis, Informatics Education Study Program, Faculty of Teacher Training and Education, Universitas Trunojoyo Madura. Advisor: Laili Cahyani S. Kom., M. Kom.

Abstract

This study aims to develop a web-based student guidance and *monitoring* information system at SMPN 22 Surabaya. The background of this study is the continued use of manual methods in recording guidance and counseling activities, which results in low data management efficiency, the risk of information loss, and low parental involvement. This system is designed for four types of users: admin, guidance and counseling teachers, students, and guardians. Available features include recording student performance and violations, submissions, and counseling history digitally. The development method used is the *Waterfall* model, including the stages of needs analysis, system design, implementation, testing, and maintenance. Data collection was conducted through interviews with guidance and counseling teachers. The instruments used in this study were functional suitability testing instruments, usability instruments and portability instruments. Functionality testing using the black box testing method showed 100% success, indicating that all system functions run as expected. Usability testing by 30 respondents resulted in a feasibility score of 89.61% (very feasible category). In terms of performance efficiency, GTMetrix recorded Grade A with a performance score of 95%, structure 86%, and a load time of 1.1 seconds, well below the 10-second threshold. Portability testing on three browsers (Chrome, Edge, and Opera) also demonstrated 100% success with no functional issues, demonstrating excellent integration. In conclusion, this system can improve efficiency, support the counseling process, and strengthen the role of parents.

Keyword: System information, guidance and counseling, student monitoring, web, waterfall, ISO 25010.