

ABSTRAK

Sukrina Paujiah Nasution: *Pengembangan Sistem Informasi Perpustakaan Berbasis Web Di SMKS Muhammadiyah 04 Medan*. Skripsi. Fakultas Teknik. Universitas Negeri Medan.

Penelitian ini guna merancang dan mengimplementasikan sistem informasi perpustakaan berbasis web di SMKS Muhammadiyah 04 Medan. Sistem ini dirancang untuk mempermudah proses pengelolaan data perpustakaan yang mencakup data buku, peminjaman, pengembalian, dan pengelolaan anggota perpustakaan.

Research and Development (R&D) merupakan metodologi penelitian dan model waterfall menjadi metode pengembangan produk. Model ini meliputi lima tahap mencakup: analysys (analisis), Desaign (desain sistem), Development (Implementasi), Testing (Pengujian), Maintenance (Pemeliharaan) . Pengujian terhadap website yang dikermbangkan dengan standar ISO 25010 yakni functional suitability, usability, compatibility, reliability, and portability.

Berdasarkan hasil pengujian menggunakan ISO 25010 sistem ini dinyatakan layak untuk digunakan oleh siswa SMKS Muhammadiyah 04 Medan. Hasil uji kategori functional suitability dalam sistem memperlihatkan sistem informasi perpustakaan berbasis web mendapat hasil “Sangat Baik”, pengujian kategori usability mendapatkan hasil 85,88% dari pemakai dengan jumlah 30 responden, pengujian compatibility menggunakan web tool powermapper berjalan dengan baik tanpa error, pengujian reliability memakai WAPT mendapatkan hasil 99,9% saat, Sistem Informasi Perpustakaan dengan Web sudah lulus standar ISO 25010 dalam lima atribut functional suitability, usability, compatibilityusability, reliability and portability.

Kata Kunci: Sistem Informasi Perpustakaan Berbasis Web, Waterfall, ISO 25010.



ABSTRACT

Sukrina Paujiah Nasution: *Development of a Web-Based Library Information System at SMKS Muhammadiyah 04 Medan. Thesis. Faculty of Engineering. Medan State University.*

This research aims to design and implement a web-based library information system at SMKS Muhammadiyah 04 Medan. This system is designed to simplify the process of managing library data which includes book data, borrowing, returning and managing library members.

Research and Development (R&D) is the methodology for this research and the waterfall model is the product development method. This model is divided into five stages, namely: analysis, design (system design), development (implementation), testing, maintenance. Testing of websites developed using ISO 25010 standards, namely functional suitability, usability, compatibility, reliability, and portability.

Based on test results using ISO 25010, this system was declared suitable for use by students of SMKS Muhammadiyah 04 Medan. The results of the functional suitability category testing on the system show that the web-based library information system obtained "Very Good" results, the usability category testing obtained results of 85.88% from 30 respondents, compatibility testing using the Powermapper web tool ran well without errors, Reliability testing using WAPT got results of 99.9% when, Information System complies with the ISO 25010 standard on the five functional attributes of suitability, usability, compatibility, usability, reliability and portability.

Keywords: *Web Based Library Information System, Waterfall, ISO 25010.*

