

M. Rosid. 2024. *Pengembangan Sistem Informasi Perekaman Aktivitas Siswa pada Bimbingan dan Konseling Berbasis Web di SMK Ma'arif NU Kencong*. Skripsi, Program Studi Pendidikan Informatika, Fakultas Ilmu Pendidikan, Universitas Trunojoyo Madura. Pembimbing: Laili Cahyani, S.Kom., M.Kom.

ABSTRAK

Penelitian ini dilatarbelakangi oleh kebutuhan akan sistem informasi untuk mempermudah pencatatan aktivitas siswa dalam bimbingan dan konseling di SMK Ma'arif NU Kencong. Tujuan penelitian adalah mengembangkan dan menguji kelayakan sistem informasi berbasis web. Metode penelitian yang digunakan adalah *R&D (Research & Development)* dengan model *waterfall*, meliputi analisis kebutuhan, desain, pengkodean, pengujian, dan pemeliharaan. Analisis kebutuhan dilakukan melalui observasi dan wawancara. Desain sistem mencakup UML, *Database*, dan antarmuka. Pengkodean menggunakan PHP dengan *framework Laravel*. Pada tahapan pengujian, sistem ini menggunakan 4 aspek dari *ISO 25010*, yaitu *functional suitability*, *usability*, *performance efficiency*, dan *reliability*. Hasil pengujian *functional suitability* oleh ahli sistem informasi menunjukkan sistem sangat layak diuji pada pengguna. Pengujian *usability* oleh 28 pengguna menunjukkan persentase 88,4%, yang berarti sistem sangat layak digunakan. Uji *performance efficiency* dengan *GTMetrix* menunjukkan waktu load 673 milidetik dengan skor performa 100%. Pengujian *reliability* dengan *Apache JMeter* menunjukkan hasil 100%. Berdasarkan hasil-hasil ini, sistem informasi perekaman aktivitas siswa pada bimbingan dan konseling berbasis web di SMK Ma'arif NU Kencong dinyatakan layak digunakan dan dapat meningkatkan efisiensi serta efektivitas manajemen bimbingan dan konseling di sekolah.

Kata kunci: sistem informasi, bimbingan konseling, berbasis web, *waterfall*.

M. Rosid. 2024. *Development of a Web-Based Student Activity Recording Information System for Counseling at SMK Ma'arif NU Kencong*. Bachelor Thesis, Informatics Education Study Program, Faculty of Education, Trunojoyo Madura University. Advisor: Laili Cahyani, S.Kom., M.Kom.

ABSTRACT

This study is motivated by the need for an information system to facilitate the recording of student activities in counseling at SMK Ma'arif NU Kencong, replacing the manual method. The research aims to develop and test the feasibility of a web-based information system. The research method used is R&D (Research & Development) with a waterfall model, including needs analysis, design, coding, testing, and maintenance. Needs analysis was conducted through observations and interviews. The system design includes UML, Database, and interface. Coding uses PHP with the Laravel framework. In the testing phase, the system uses four aspects from ISO 25010: functional suitability, usability, performance efficiency, and reliability. Functional suitability testing by information system experts shows that the system is highly feasible for user testing. Usability testing by 28 users showed a percentage of 88.4%, indicating the system is very feasible to use. Performance efficiency testing with GTMetrix showed a load time of 673 milliseconds with a performance score of 100%. Reliability testing with the Apache JMeter showed a result of 100%. Based on these results, the web-based information system for recording student activities in counseling at SMK Ma'arif NU Kencong is declared feasible to use and can improve the efficiency and effectiveness of counseling management in schools.

Keywords: *information system, guidance and counseling, web-based, waterfall.*