

ABSTRAK

Rancang Bangun Sistem Ujian Akhir Semester Berbasis Web Pada SMK PIRI Simpang

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Teknologi komunikasi bidang pendidikan mengalami peningkatan pada tahapan proses pembelajaran. Tahapan dalam proses pembelajaran meliputi: tahap perencanaan, tahap pelaksanaan, dan tahap evaluasi. Pada tahap evaluasi terdapat ujian akhir semester. Sistem ujian akhir semester berbasis *web* telah menjadi tren dalam mengelola dan menyeleggarakan ujian dengan efisien. Penelitian ini bertujuan untuk mengembangkan dan mengimplementasikan sistem ujian akhir semester berbasis *web* pada SMK PIRI Simpang. Metode pengembangan yang digunakan adalah *waterfall* yang terdiri dari tahap: *Requirements analysis and definition*, *System and software design*, *Implementation and unit testing*, *Integration and system testing*, dan *Operation and maintenance*. Sistem ujian akhir semester berbasis *web* pada SMK PIRI Simpang terdiri dari tiga *user*, yakni admin, guru, dan siswa. *user* admin dapat mengakses halaman *login*, guru, mata pelajaran, kelas, dan siswa. *User* guru dapat mengakses halaman *login*, soal ujian, dan nilai. *User* siswa dapat mengakses halaman *login*, dan mengerjakan soal ujian. Melalui penggunaan sistem ujian akhir semester berbasis *web*, diharapkan SMK PIRI Simpang dapat mengoptimalkan pengelolaan ujian, mengurangi kesalahan administrasi, dan meningkatkan efisiensi waktu. Hasil dari penelitian ini diharapkan dapat menjadi acuan bagi sekolah lain dalam mengimplementasikan sistem ujian akhir semester berbasis *web*.

Kata kunci: Sistem Ujian Akhir Semester, *website*, SMK PIRI Simpang, *waterfall*.

ABSTRACT

Design and Development of Web-Based Final Examination System at SMK PIRI Simpang

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The field of education has witnessed advancements in communication technology during the various stages of the learning process. These stages include planning, implementation, and evaluation. The evaluation stage involves the final examination. Web-based systems for conducting final examinations have become a trend in efficiently managing and conducting exams. This research aims to develop and implement a web-based final examination system at SMK PIRI Simpang. The development method employed is the waterfall model, consisting of the following stages: Requirements analysis and definition, System and software design, Implementation and unit testing, Integration and system testing, and Operation and maintenance. The web-based final examination system at SMK PIRI Simpang caters to three user roles: admin, teacher, and student. The admin user can access the login page, manage teachers, subjects, classes, and students. The teacher user can access the login page, view exam questions, and input grades. The student user can access the login page and take the exam. Through the utilization of the web-based final examination system, it is expected that SMK PIRI Simpang can optimize exam management, reduce administrative errors, and improve efficiency in terms of time. The outcomes of this research are expected to serve as a reference for other schools in implementing web-based final examination systems.

Keywords: Final Examination System, website, SMK PIRI Simpang, waterfall.