

ABSTRAK

Penjaminan mutu merupakan suatu hal yang penting dilakukan oleh suatu perguruan tinggi. Dalam pelaksanaan penjaminan mutu, Prodi Pendidikan Informatika mengalami beberapa permasalahan karena masih menggunakan cara manual. Oleh Karena itu, penelitian ini bertujuan untuk mengembangkan sistem informasi penjaminan mutu Pendidikan Informatika berbasis web. Metode yang digunakan dalam penelitian ini adalah *Research and Development* (R&D) dengan model *waterfall*. Model *waterfall* terdiri dari 4 tahapan yaitu analisis kebutuhan, desain, pengkodean, dan pengujian. Analisis kebutuhan dilakukan dengan observasi dan wawancara. Desain sistem dibuat dengan *Unified Modeling Language* (UML) yang terdiri dari *use case diagram*, *activity diagram* dan *class diagram*. Pengkodean sistem menggunakan *framework* Laravel dan *database* MySQL. Pengujian dilakukan berdasarkan 5 karakteristik dalam standar ISO 25010 yang meliputi *functional suitability*, *usability*, *reliability*, *performance efficiency*, dan *maintainability*. Hasil dari penelitian ini adalah sistem informasi penjaminan mutu Pendidikan Informatika berbasis web mempermudah dalam manajemen dokumen penjaminan mutu, pengisian kuesioner evaluasi dan *tracer study* serta mengelola hasil evaluasi. Sistem informasi yang dikembangkan telah memenuhi 5 karakteristik standar ISO 25010, yaitu *functional suitability* sebesar 100% (sangat baik), *usability* sebesar 85.30% (sangat layak) dan nilai *alpha cronbach* sebesar 0.885 (baik), *reliability* sebesar 100% (lolos), *performance efficiency* dengan *PageSpeed score* 98% (A), *Yslow score* 92% (A), dan *fully loaded time* sebesar 2 detik (diterima) serta hasil *maintainability* sebesar 105.71 (tingkat *maintainability* tinggi).

Kata-kata Kunci : Sistem Informasi, Penjaminan Mutu, Web, ISO 25010

ABSTRACT

Quality assurance is an important thing done by a college. In the implementation of quality assurance, Informatics Education Department had some problem because still uses manual way. Therefore, the purpose of this study is to develop a web quality assurance information system of informatics education. The method used in this study is Research and Development (R&D) with waterfall model. Waterfall model consists of 4 stages, namely requirement analysis, design, coding, and testing. Requirement analysis is done by observation and interview. System design is made with Unified Modeling Language (UML) which consists of use case diagram, activity diagram and class diagram. The coding system uses the Laravel framework and MySQL database. The test is based on 5 characteristics in ISO 25010 standard which include functional suitability, usability, reliability, performance efficiency, and maintainability. The result of this study is quality assurance information system of informatics education can help to manage quality assurance document, facilitate the filling of evaluation questionnaire and tracer study also manage the result of evaluation. The developed information system has fulfilled 5 characteristics of ISO 25010 standard, with functional suitability is 100% (very good), usability is 85.30% and alpha cronbach value equal to 0.885 (good), 100% reliability (pass), performance efficiency with PageSpeed score of 98% (A), Yslow score 92% (A), and fully loaded time of 2 seconds (received) and maintainability result is 105.71 (high maintainability).

Keywords : *Quality Assurance, Information System, Web, ISO 25010*