E-LEARNING INFORMATION SYSTEM DEVELOPMENT
(Case Study: YPKK 1 Vocational School, Sleman)

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ABSTRACT

The e-learning system is designed to facilitate teachers in delivering materials and assignments, as well as to facilitate students in accessing materials, taking exams, and submitting assignments online. This study aims to develop an e-learning information system at SMK YPKK 1 Sleman to improve the effectiveness and efficiency of the learning process. The research method used is the Waterfall software development method, which consists of several stages, namely needs analysis, system design, implementation, testing, and maintenance. At the needs analysis stage, interviews and observations were conducted with teachers and students to understand the needs of an E-learning system that is in accordance with the curriculum and learning process at SMK YPKK 1 Sleman. The system design stage includes creating data flow diagrams, designing user interfaces, and database structures. Implementation is carried out using the PHP and MySQL programming languages. The test results show that the use of blackbox gets 100% results from a total of 19 scenarios. The results of this study indicate that the e-learning system developed is able to support online learning at SMK YPKK 1 Sleman. Teachers can upload materials, give assignments, and hold exams digitally. Students can access learning materials anytime and anywhere, as well as submit assignments and take exams online. With this e-learning information system, learning at SMK YPKK 1 Sleman becomes more structured, interactive with technology, and able to adapt to technological changes in the world of education.

Keywords: E-learning, Information System, Website Development, Data Security, Online Learning