ABSTRACT

Advances in information technology have led to the creation of technology-based information systems to improve the efficiency of various processes. At Telkom University Purwokerto, particularly in the Informatics study program, the management of room and laboratory equipment rentals still uses Google forms, which are considered inefficient and often cause communication errors. This study aims to develop a web-based laboratory management information system using the Rapid Application Development (RAD) method. The RAD method was chosen because it enables rapid and iterative system development. The system is designed to provide real-time information on the availability of laboratory rooms and equipment, as well as to simplify the borrowing and management processes. System testing was conducted using blackbox testing and the System Usability Scale (SUS) to ensure system functionality and ease of use. The research results indicate that the system was successfully implemented and all features functioned as planned based on the blackbox testing results. Evaluation using the System Usability Scale yielded an average score of 82.3, which falls into the Excellent category, indicating that the system is easy to use and received positive feedback from users. This system reduces inefficiencies in room and laboratory equipment borrowing, minimizes the risk of data loss, and improves communication and coordination among laboratory staff. Real-time access to room and equipment availability information supports optimal planning for laboratory facility usage.

Keywords: *Information System, Laboratory Management, Blackbox Testing, RAD, SUS*