ABSTRACT

The implementation of an Outcome-Based Education (OBE) curriculum in higher education requires a system capable of supporting structured, systematic, and measurable learning evaluation processes. The Faculty of Industrial Engineering at Telkom University has adopted this approach but still faces challenges in monitoring the achievement of Program Learning Outcomes (PLO), particularly for extension students who come from different curriculum backgrounds. This study aims to develop a web-based recognition of prior learning module in the form of a student dashboard that addresses two primary needs: PLO mapping for extension students and PLO remedial support for all students.

The system was developed using the Iterative Incremental Model to allow gradual development and adaptation based on user feedback. The PLO mapping feature enables the Head of Study Program to map courses taken by extension students to equivalent courses in the current curriculum, with results visualized to show their contribution to PLO achievements. Meanwhile, the PLO remedial feature allows students and academic staff to monitor PLO attainment based on academic performance data and identify courses that require improvement.

The system was built using Laravel Lumen for the backend, ReactJS for the frontend, and PostgreSQL as the database. Validation through Unit Testing and User Acceptance Testing confirmed that the system runs reliably and meets user requirements. Therefore, the system is considered feasible and effective in improving efficiency and accountability in implementing the OBE curriculum at the Faculty of Industrial Engineering.

Keywords - ***Outcome-Based Education, Program Learning Outcomes, extension students, prior learning recognition, dashboard, web-based information system***