

Thesis Title Content Accessibility Evaluation on a Learning Management System for Students with Visual Impairments

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ABSTRACT

This study validated the use of Web Content Accessibility Guidelines (WCAG) 2.1 to evaluate online content accessibility across three platforms: the University's Official Website, the University-LMS, and the Foundation for Children with Disabilities' e-Learning system. This paper adopted the Level A and AA standards to ensure access for visually impaired students. Evaluation methods combined automated tools (WAVE) with manual checks of key pages, including Homepage, Course, Assignment, and Examination functions.

Findings showed that the University-LMS posed the most accessibility challenges, notably missing alternative text, weak keyboard navigation, and low colour contrast. In contrast, the University's Official Website nearly met all AA standards and served as a reliable benchmark. An online survey was conducted with 18 participants (four lecturers, two teaching assistants, and twelve visually impaired students) to confirm the evaluation results and gather feedback based on real-world usage.

Survey responses reinforced experimental findings, highlighting LMS issues such as unclear navigation, missing form labels, and insufficient link descriptions. These barriers created greater difficulties for visually impaired users than the University's Website, which was more compliant with WCAG standards. Although limited in scope, the study underscores the pressing need to improve LMS accessibility. It suggests expanding future research to include a broader range of users, higher WCAG levels, and more inclusive design guidelines.

Keywords: Web Content Accessibility Guidelines, Accessibility Evaluation, Learning Management System, Visually Impaired Students, Inclusive Design