Keberkesanan Laman Sesawang *MyHydrology* dalam Pengajaran dan Pembelajaran Kursus DCC50212 *Hydrology*

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Abstract

This study evaluates the effectiveness of the MyHydrology website as a digital learning platform for the DCC50212 Hydrology course. MyHydrology was developed as a one-stop center providing comprehensive sets of practice questions with answers, aiming to support Teaching and Learning (T&L) in an interactive and flexible manner across the five main topics of the course. A descriptive quantitative approach was employed, involving 56 fifth-semester students selected based on the Krejcie and Morgan table. Data were collected through a four-point Likert scale questionnaire and the achievement of Course Learning Outcome (CLO) 1. The findings indicate that the website design was very well received by students, with mean scores ranging from 3.93 to 4.00, while the usability aspect recorded an average score of 3.98, reflecting high levels of accessibility, usability, and content effectiveness. Analysis of CLO 1 achievement showed a significant improvement after using MyHydrology, with Group Attainment (%) data recorded at 69.8% in Session 1: 2024/2025 and declining to 63.7% in Session 2: 2024/2025 before the implementation of this innovation. After its use in Session 1: 2025/2026, achievement increased to 73.7%, indicating a positive impact on students' understanding and performance. In conclusion, MyHydrology has proven to be an effective, interactive, and innovative digital learning platform that enhances motivation, comprehension, and academic achievement, with potential for broader application in other technical courses to support more effective and modern T&L.

Keywords: *MyHydrology, Hydrology, Teaching and Learning, Digital Learning, Course Learning Outcome*

Abstrak

Kajian ini menilai keberkesanan laman sesawang MyHydrology sebagai platform pembelajaran digital bagi kursus DCC50212 Hydrology. MyHydrology dibangunkan sebagai pusat sehenti yang menyediakan set soalan latihan lengkap berserta jawapan, bertujuan menyokong Pengajaran dan Pembelajaran (PdP) secara interaktif dan fleksibel bagi lima topik utama kursus ini. Pendekatan kuantitatif deskriptif digunakan, melibatkan 56 pelajar Semester 5 yang dipilih berdasarkan jadual Krejcie dan Morgan. Data dikumpul melalui soal selidik skala Likert empat mata serta pencapaian Course Learning Outcome (CLO) 1. Hasil kajian menunjukkan reka bentuk laman sesawang diterima dengan sangat baik oleh pelajar, dengan skor min 3.93 hingga 4.00, manakala aspek penggunaan mencatat purata skor 3.98, menunjukkan tahap kebolehgunaan, aksesibiliti, dan keberkesanan kandungan yang tinggi. Analisis pencapaian CLO 1 memperlihatkan peningkatan ketara selepas penggunaan MyHydrology, dengan data Group Attainment (%) merekodkan 69.8% pada Sesi 1: 2024/2025 dan menurun kepada 63.7% pada Sesi 2: 2024/2025 sebelum inovasi ini diperkenalkan. Selepas penggunaan pada Sesi 1: 2025/2026, pencapaian meningkat kepada 73.7%, menandakan impak positif terhadap kefahaman dan prestasi pelajar. Kesimpulannya, MyHydrology terbukti sebagai platform pembelajaran digital yang efektif, interaktif, dan inovatif, meningkatkan motivasi, kefahaman, serta pencapaian akademik, dengan potensi diperluaskan kepada kursus teknikal lain untuk menyokong PdP yang lebih berkesan dan moden.

Kata Kunci: MyHydrology, Hidrologi, Pengajaran dan Pembelajaran (PdP), Pembelajaran Digital, Course Learning Outcome