
Mobile Application for Practical Structural Engineering Learning: A USE Questionnaire-Based Student Evaluation on Usefulness, Satisfaction and Ease of Use

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Abstract

Mobile learning (m-learning) is a modern approach to education that uses mobile devices, such as smartphones and tablets, to improve how students and educators interact with learning materials and activities. This study investigates the effectiveness of a mobile application designed for structural engineering practical courses, focusing on usability, satisfaction, and ease of learning. Using a quantitative methodology, data were collected from 58 students at Sultan Abdul Halim Mu'adzam Shah Polytechnic through the USE Questionnaire, a validated tool for assessing user experience. The USE Questionnaire evaluates four key dimensions: usefulness, which measures how well the system fulfills its intended purpose; ease of use, assessing the simplicity and effortlessness of using the system; ease of learning, which gauges how quickly and intuitively users can become proficient with the system; and satisfaction, capturing users' overall contentment and enjoyment. Each dimension comprises multiple items rated on a 7-point Likert scale, ranging from "strongly disagree" to "strongly agree." Analysis revealed consistently high mean scores across all dimensions, with usefulness scoring between 6.138 and 6.397, ease of use ranging from 6.155 to 6.397, ease of learning between 6.207 and 6.310, and satisfaction scoring from 6.207 to 6.379. These results highlight the application's ability to enhance productivity, simplify tasks, and foster engaging learning experiences. While minor variability in responses indicated areas for improvement, the overall findings demonstrated the tool's reliability, accessibility, and adaptability in meeting educational needs. These results reinforce the significant role of m-learning in creating dynamic, interactive, and self-directed educational environments, making it an essential component of modern education.

Keywords : *Mobile Applications; Mobile Learning; Satisfaction; Usability, Usefulness*
