ASSESSING THE RELATIVE IMPORTANCE OF AN E-LEARNING SYSTEM’S USABILITY DESIGN CHARACTERISTICS BASED ON STUDENTS' PREFERENCES

A. Alshehri, M. Rutter, S. Smith

Edinburgh Napier University (UNITED KINGDOM)

Abstract

This study considers the interaction between an e-learning system, the Blackboard system, and the students who use it in Saudi Arabia. While previous work exists, there is limited consideration of the assessment of e-learning system usability variables preferences based on students’ perspectives, especially in developing countries such as Saudi Arabia. This paper attempts to fill the gap by investigating the relative importance of the design criteria developed for e-learning system usability evaluation from students’ perspective in Saudi tertiary education. Based on reviewed literature, a set of usability principles was developed, that have had an influence in the students learning process and use of e-learning system. The list includes system navigation, system learnability, visual design, information quality, instructional assessment and system interactivity. An exploratory study was carried out to identify the most important usability design characteristics from a student’s perspective then evaluate the overall usability of the current e-learning system based on this subset. A quantitative approach was adopted to weigh usability design characteristics based on 181 learners’ perceptions. The sample consists of undergraduates who are users of a web-based e-learning system in a university in Saudi Arabia. The research instrument was tested for construct validity and reliability. The analytical results have shown that information quality is the most important dimension followed by the navigation of the e-learning system. The study has also revealed that the system learnability and visual design came third and fourth in order of importance of e-learning system usability assessment. Finally, the least important design categories that influenced the e-learning system usability assessment were instructional assessment and system interactivity. Overall, the findings indicated that the majority of students are content with the usability features of the e-learning system. The empirical results of this study may help to provide insights for designers and evaluators leading to a more effective approach to improve the usability of the e-learning system and uptake.

Keywords: e-learning system, higher education, usability evaluation, usability principles preference, developing countries.