The Effectiveness and Students’ Perception of an Adaptive Mobile Learning System based on Personalized Content and Mobile Web

Abstract

As the whole world is going mobile, application of mobile devices in education, also known as m-learning, is becoming one of the most popular areas of educational research. This paper presents the implementation and evaluation of the effectiveness and students’ attitudes toward an adaptive mobile learning system based on personalized content and mobile web. Personalization of learning materials is based on the Felder-Silverman learning style model and the features of the accessing mobile device were identified using the device library. The results of the study confirm students’ positive attitudes toward mobile learning and the developed adaptive m-learning system. They also prove the effectiveness of the system and m-learning as an additional educational tool in terms of increasing students’ knowledge and scores.

Keywords: personalized mobile learning, device adaptation, mobile web, content adaptation.

Introduction

M-learning is usually defined as a form of e-learning which can take place anywhere, anytime, using mobile devices such as mobile phones and PDA devices (Quin, 2000; Kadirere, 2009). Mobile learning has come to people’s attention because mobile devices are portable, ubiquitous, accessible, and used by many people (Keskin and Metcalf, 2011). Lower cost, transportability, and flexibility are the advantages of