

Outdoor Green Map Technology System in Education

The Design of Integration of Map with Mobile Technology in Environmental Education Activities

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Abstract

This study adapted an outdoor mobile learning map, QR Code Information Green-map (QRCIG), which is based on a cognitive theory of multimedia learning (CTML). It used the mobile technologies, such as mobile device, wireless network, as well as information icons (QR codes), to help students' self-learning in outdoor environment. QRCIG can help students to learning more information but not limited in a traditional green map. **They can use information icons embedded green map, associated with smart phones or similar devices equipped with decoding software in wireless communication environment to learning the relevant extended content in wild outdoor.** 120 fifth and sixth grade elementary school students were observed during their outdoor activities, and the measured data were analysed by using the Technology Acceptance Model (TAM). The results demonstrated that students' behavioural intention to use and attitudes regarding the QRCIG were significantly positive (correlation coefficient = 0.597**). According to the analysis, the greater the skill of the students in using the QR code was, the higher their behavioural intention to use and frequency of adoption were (correlation coefficient ranging from 0.341 to 0.852). By conducting analysis using the TAM, it showed that a traditional environmental education program integrated using mobile technologies is highly applicable in outdoor education.

Keywords : Green Map, Mobile Learning, QR Code, Outdoor education

