Accepted Manuscript

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PII: S0360-1315(18)30038-1

DOI: 10.1016/j.compedu.2018.02.006

Reference: CAE 3302

To appear in: Computers & Education

Received Date: 16 February 2017
Revised Date: 2 February 2018
Accepted Date: 4 February 2018

Please cite this article as: Bano M., Zowghi D., Kearney M., Schuck S. & Aubusson P., Mobile learning for science and mathematics school education: A systematic review of empirical evidence, *Computers & Education* (2018), doi: 10.1016/j.compedu.2018.02.006.

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ACCEPTED MANUSCRIPT

Mobile Learning for Science and Mathematics School Education: A Systematic Review of Empirical Evidence

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Abstract

The ubiquity, flexibility, ease of access and diverse capabilities of mobile technologies make them valuable and a necessity in current times. However, they are under-utilized assets in mathematics and science school education. This article analyses the high quality empirical evidence on mobile learning in secondary school science and mathematics education. Our study employed a Systematic Literature Review (SLR) using well-accepted and robust guidelines. The SLR resulted in the detailed analysis of 49 studies (60 papers) published during 2003 – 2016. Content and thematic analyses were used to ascertain pedagogical approaches, methodological designs, foci, and intended and achieved outcomes of the studies. The apps and technologies used in these studies were further classified for domain, type and pedagogical use. The review has highlighted gaps in existing literature on the topic and some noteworthy observations in the analysis for future research.

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