Marco Kalz  Yasemin Bayyurt
Marcus Specht (Eds.)

Mobile as Mainstream –
Towards Future Challenges in Mobile Learning

13th World Conference
on Mobile and Contextual Learning, mLearn 2014
Istanbul, Turkey, November 3-5, 2014
Proceedings

Springer
# Table of Contents

## Technologies and Interaction

**Mobile Learning: An Ergonomic Alternative for Long-Awaited Educational Changes?** ........................................... 1  
*Thomas Petit and Gilberto Lacerda Santos*

**Declarative Approach for Adaptivity and Personalization in Mobile Learning: An Algerian Perspective** ................................................................. 15  
*Nadia Khalfallah, Abdellah Boukerram, and John Traxler*

**Using a Commercial Mobile Application as a Mobile Learning Platform** ................................................................. 29  
*Christodoulos Lytridis and Avgoustos Tsinakos*

**Creating Library Virtual Learning Spaces Supported by Multiple Mobile Devices** ................................................................. 38  
*Ieda M. Santos, Nagla Ali, Gillian Westera, Anthony Hill, and Mubarak Al Jabri*

## Tablets and eBook Readers

**The Tablet Motivating Mathematics Learning in High School** ........... 42  
*Carlos Fernando Araújo Jr., Eduardo Jesus Dias, and Marcos Andrei Ota*

**Taking eBook Readers to Prisons: A Tale of Two Projects** ............ 52  
*Helen Farley, Angela Murphy, Tas Bedford, and Susan Hopkins*

## Learning and Teaching Inside and Outside the Classroom

**Exploring Tools to Promote Teacher Efficacy with mLearning** .......... 61  
*Robert Power, Dean Cristol, and Belinda Gimbert*

**Students’ Use of Mobile Phones for School Work** .......................... 69  
*Torbjörn Ott, Therése Haglind, and Berner Lindström*

**Students’ Perceptions of Mobile Devices Usage during Class Time and Policy Suggestions for Appropriate Practices** ............................... 81  
*Ieda M. Santos and Otávio Bocheco*
# Table of Contents

## Learning Design and Design Implications

In the Eye of the Beholder: Promoting Learner-Centric Design to Develop Mobile Games for Learning ........................................... 92  
*Birgit Schmitz, Marco Kalz, Roland Klemke, and Marcus Specht*

Building an Mlearning Research Framework through Design Science Research ................................................................. 107  
*Merryl Ford, Martien Herselman, and Adele Botha*

## Evaluation and Review Studies

A Proposed Evaluation Framework from Mobile Inquiry-Based Learning Activities in Science Education ........................................... 123  
*Sohaib Ahmed*

On Mobile Learning with Learning Content Management Systems: A Contemporary Literature Review ........................................... 131  
*Asiimwe Edgar Napoleon and Grönhild Åke*

The Relationship between Students, Mobile Phones and Their Homework ................................................................. 146  
*Peter Ilic*

## Development and National Perspectives

Mobile Learning for Development: Ready to Randomise? ......................... 156  
*Laurenz Hanger, Niall Winters, and Ruth Stewart*

An M-Learning Solution to Address Critical Healthcare Issues in Ghana: Challenges for Mobile Learning in Developing Countries .......... 168  
*Agnieszka Palalas, Nicole Berezin, Gretchen Kramer, Joel Kwesi Appiah, and Charlotte N. Gunawardena*

Pathways to a Better World: Assessing Mobile Learning Policy against UNESCO Guidelines in a New Zealand Case Study ................. 182  
*David Parsons*

Mobile Learning Trends among Students in Vietnam .......................... 197  
*Angela Murphy, Warren Midgley, and Helen Farley*

Crucial Factors of Implementing Mobile Learning in Sector of VET Organisations in Poland ......................................................... 205  
*Aleksandra Mykowska, Iwona Kostrzewa, and Magdalena Orda*

The Impacts of Tablet Use for Eliminating the Time-Space Barriers in University Education: A Turkish Experience ........................... 212  
*Sarphan Uzunoglu, Ismail Hakki Polat, and Murat Akser*
Mobile Learning Perspectives from the United States: Superintendents and Researchers Share Experiences and Insights .......................... 222
  *Michael Corke, John Franey, Maria Kelley, Shawn Gross, Timothy Baird, and Terry Grier*

**Inquiry-Based Learning and Science Applications**

A Comparative Analysis in Evaluating ‘ThinknLearn’ from Science Educators and High School Students Perspectives ..................... 228
  *Sohaib Ahmed and David Parsons*

Finger Velocity – A Multimodal Touch Based Tablet Application for Learning the Physics of Motion ............................. 238
  *Mattias Davidsson*

**Work-Based Learning**

Workplace Learning Using Mobile Technology: A Case Study in the Oil and Gas Industry ................................................................. 250
  *Mohamed Ally, Mohammed Samaka, John Impagliazzo, Abdulahi Mohamed, and Martha Robinson*

A Vodcast Project in the Workplace: Understanding Students’ Learning Processes Outside the Classroom .......................... 258
  *Laurel Evelyn Dyson*

M-Workplace Learning @ ITC-ILO: Design Thinking for Mobile Learning Interventions at Work .......................................................... 272
  *Alessia Messuti, Tom Wambeke, Marco Kalz, and Barbara Bruschi*

Context-Aware Mobile Professional Learning in PRiME ...................... 287
  *Christoph Greven, Mohamed Amine Chatti, Hendrik Thüs, and Ulrik Schroeder*

Nurses’ Work-Based Mobile Learning ........................................... 300
  *Dorothy (Willy) Fahlman*

**Theory**

Review of Trends in Mobile Learning Studies in Mathematics:
A Meta-Analysis ................................................................. 304
  *Helen Crompton and Diane Burke*

Towards an Indigenous Model for Effective Mobile Learning ............ 315
  *Travis Timoko*
Language Learning
Pedagogical Affordances of Smart Mobile Devices Integrated with Web 2.0 Tools to Enhance English Language Teaching and Learning 
Nurhasmiza Sazalli

Multimodality in Mobile-Assisted Language Learning
Volker Eisenlauer

The Stages in Mobile-Assisted Language Learning Material Development
Yasemin Bayyurt, Gülcen Erçetin, and Nur Başak Karataş

Challenges in Context-Aware Mobile Language Learning: The MASELTOV Approach
Mark Gaved, Patrick Luley, Sofoklis Efremidis, Iakovos Georgiou, Agnes Kukulska-Hulme, Ann Jones, and Eileen Scanlon

Learner Perspectives
Using Mobile Devices to Help High School Students Improve Their Oral Presentation Skills
Susan Gwee and Hwee Leng Toh-Heng

Mobile Literacies: Navigating Multimodality, Informal Learning Contexts and Personal ICT Ecologies
Jessica Katherine Frawley and Laurel Evelyn Dyson

Author Index

Table of Contents
XII