Contents

Games in Education and Training

Data-Driven Design Decisions to Improve Game-Based Learning of Fractions . . . 3
Manuel Ninaus, Kristian Kiili, Robert S. Siegler, and Korbinian Moeller

Building a Game to Build Competencies . . . 14
Esther Kuindersma, Jelke van der Pal, Jaap van den Herik, and Aske Plaat

Training of Spatial Abilities with Digital Games: Impact on Mathematics Performance of Primary School Students . . . 25
Laura Freina, Rosa Bottino, Lucia Ferlino, and Mauro Tavella

Games for Health and Special Children

BeeSmart: A Gesture-Based Videogame to Support Literacy and Eye-Hand Coordination of Children with Down Syndrome . . . 43
Veronica Lizeth Amado Sanchez, Oscar Iván Islas Cruz, Edgar Armando Ahumada Solorza, Iván Alejandro Encinas Monroy, Karina Caro, and Luis A. Castro

Sinbad and the Magic Cure: A Serious Game for Children with ASD and Auditory Hypersensitivity . . . 54
Hanan Makki Zakari, Matthieu Poyade, and David Simmons

Identifying Different Persuasive Gaming Approaches for Cancer Patients . . . 64
Teresa de la Hera Conde-Pumpido

Prosodiya – A Mobile Game for German Dyslexic Children . . . 73
Heiko Holz, Katharina Brandelik, Jochen Brandelik, Benedikt Beuttler, Alexandra Kirsch, Jürgen Heller, and Detmar Meurers

A Spinal Column Exergame for Occupational Health Purposes . . . 83
Sergio Valdivia, Robin Blanco, Alvaro Uribe, Lina Penuela, David Rojas, and Bill Kapralos

Gamification

Investigating Motivation in Gamification: Results from an Experimental Pilot Study 95
Peter Bußwolder and Andreas Gebhardt

Students' Choices: A Comparative Study of a Gamified and a Non-gamified Question-Based Learning App in Graduate Education . . . 105
Heinrich Söbke and Laura Weitze

Towards Implementing Gamification in MOOCs 115
Alessandra Antonaci, Roland Klemke, Christian M. Stracke, and Marcus Specht

gMOOCs – Flow and Persuasion to Gamify MOOCs 126
Alessandra Antonaci, Daria Peter, Roland Klemke, Tim Bruysten, Christian M. Stracke, and Marcus Specht

Social Engagement in a Digital Role-Playing Game Dedicated to Classroom Management 137
Guillaume Bonvin and Eric Sanchez

OneUp Learning: A Course Gamification Platform 148
Darina Dicheva, Keith Irwin, and Christo Dichev

Augmented and Virtual Reality

Design Patterns for Augmented Reality Learning Games 161
Felix Emmerich, Roland Klemke, and Thomas Hummes

Learning by Imagining History: Staged Representations in Location-Based Augmented Reality 173
Peter Winzer, Ulrike Spierling, Erik Massarczyk, and Kathrin Neurohr

Methods and Tools (for Design and Development)

A Game-Based Development Method of Experiential Learning for Aspiring Professionals 187
Steven T. de Rooij and Hylke W. van Dijk

Emotions Detection Through the Analysis of Physiological Information During Video Games Fruition 197
Marco Granato, Davide Gadia, Dario Maggiorini, and Laura Anna Ripamonti

Design of a Component-Based Mobile Learning Game Authoring Tool 208
Pierre-Yves Gicquel, Sebastien George, Pierre Laforcade, and Iza Marfisi-Schottman

Investigating the Design and Evaluation of Educational Games Under the Perspective of Player Experience 218
Alysson Diniz dos Santos, Francesco Strada, and Andrea Bottino

The Effect of Uncertainty and Quality Perception on the Usage of Forecasting Tools – A Game Based Analysis 228
Richard Lackes, Markus Siepermann, and Georg Vetter

Exploring Context-Aware Activities to Enhance the Learning Experience. . . . 238
Jannicke Baalsrud Hauge, Ioana Andreea Stefan, Antoniu Stefan, Massimiliano Cazzaniga, Pau Yanez, Tomasz Skupinski, and Francois Mohier

Erratum to: Emotions Detection Through the Analysis of Physiological Information During Video Games Fruition E1
Marco Granato, Davide Gadia, Dario Maggiorini, and Laura Anna Ripamonti

Poster Abstracts

Using the Educational Potential Mapper to Design an Adaptive Serious Game: The "uManager" Case Study 251
Manuel Gentile, Salvatore Perna, Giuseppe Città, Simona Ottaviano, Valentina Dal Grande, Dario La Guardia, and Mario Allegra

Serious Games for Participatory Design, Crowdsourcing and Remote Usability Testing. 254
Edward Oates

Using Choreographies to Support the Gamification Process on the Development of an Application to Reduce Electricity Costs 256
Fernando Cassola, José Iria, Hugo Paredes, Leonel Morgado, António Coelho, and Filipe Soares

Gaming Against Violence: An Exploratory Evaluation Through Mechanical Turk of the Efficacy of Persuasive Digital Games in Improving Unhealthy Relationship Attitudes 259
Drew Crecente and Ruud S. Jacobs

A VR Cardiac Auscultation Examination Game 263
Mario Vargas-Orjuela, Alvaro Uribe-Quevedo, David Rojas, Bill Kapralos, and Byron Perez-Gutierrez

Author Index 265

Springer

http://www.springer.com/978-3-319-71939-9

Games and Learning Alliance
6th International Conference, GALA 2017, Lisbon, Portugal, December 5–7, 2017, Proceedings
Dias, J.; Santos, P.A.; Veltkamp, R.C. (Eds.)

2017, XIII, 266 p. 72 illus., Softcover
ISBN: 978-3-319-71939-9