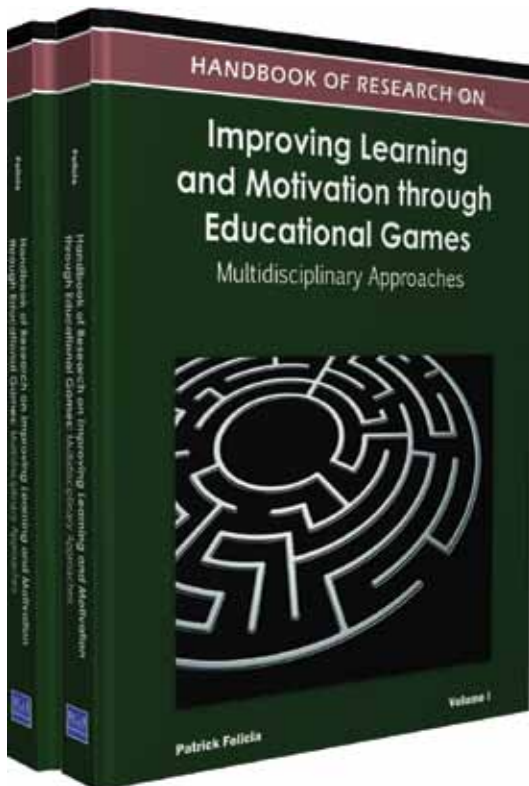


An Excellent Addition to Your Library!

Released: April 2011

Handbook of Research on Improving Learning and Motivation through Educational Games: Multidisciplinary Approaches



Patrick Felicia (Waterford Institute of Technology, Ireland)

Game-Based Learning is becoming increasingly popular thanks to its ability to both motivate and teach a new generation of learners frequently referred as “digital natives.” This new breed of learners uses computers on a regular basis, plays video games frequently and is often driven by emotionally-charged material.

Handbook of Research on Improving Learning and Motivation through Educational Games: Multidisciplinary Approaches provides relevant theoretical frameworks and the latest empirical research findings on game-based learning. It is written for professionals, such as students, teachers, developers or managers, who want to improve their understanding of the important roles and applications of educational games in terms of teaching strategies, instructional design, educational psychology and game design.

Topics Covered:

- Augmented reality
- Barriers and possible solutions for the introduction of educational games
- Conditions for successful integration of digital games in the classroom
- Instructional design and video games
- Integrating educational games with learning management systems
- Intelligent tutoring systems and game-based learning
- Mobile-game-based learning
- Psychological aspects of educational games
- Virtual worlds

ISBN: 9781609604950; © 2011; 1462 pp.

Print: US \$475.00 | Perpetual: US \$695.00 | Print + Perpetual: US \$950.00

Market: This premier publication is essential for all academic and research library reference collections.

It is a crucial tool for academicians, researchers, and practitioners and is ideal for classroom use.

Patrick Felicia is a Lecturer, Researcher and Course Leader at Waterford Institute of Technology (WIT). He works within the Department of Computing, Mathematics and Physics. Dr. Felicia earned his PhD in computer science from University College Cork. In WIT, his research and teaching is focused on the use of innovative and engaging educational experiences by combining Gaming Technology, Instructional Design, and Educational Psychology. His research interests include Game-Based Learning, Technology-Enhanced Education and Adaptive Educational Systems. Dr. Felicia has presented and published internationally. He has conducted several studies on the use and benefits of Game-Based Learning.



www.igi-global.com

Publishing Academic Excellence
at the Pace of Technology Since 1988

Section 1: Introduction to Game-Based Learning

Chapter 1

Research Review:

Swingby Gunilla (Malmö University, Sweden)
Nilsson Elisabet M. (Malmö University, Sweden)

Chapter 2

The Use of Computer Games in Education:

Hainey Thomas (University of the West of Scotland, Scotland)
Connolly Thomas (University of the West of Scotland, Scotland)
Stansfield Mark (University of the West of Scotland, Scotland)
Boyle Liz (University of the West of Scotland, Scotland)

Chapter 3

European Schoolnet1's Games in Schools Study:

Kearney Caroline (European Schoolnet, Belgium)

Chapter 4

Learning with Video Games

St-Pierre René (Université du Québec à Montréal, Canada)

Section 2: Cognitive Approach to Game-Based Learning: Design Patterns and Instructional Design

Chapter 5

A First Step towards Integrating Educational Theory and Game Design

van Staalduijn Jan-Paul (Delft University of Technology, The Netherlands)

Chapter 6

Classifying Serious Games:

Djaouti Damien (IRIT – University of Toulouse, France)
Alvarez Julian (IRIT – University of Toulouse, France)
Jessel Jean-Pierre (IRIT – University of Toulouse, France)

Chapter 7

Game-Based Learning Design Patterns:

Ecker Manuel (University of Education Weingarten, Germany)
Müller Wolfgang (University of Education Weingarten, Germany)
Zylka Johannes (University of Education Weingarten, Germany)

Chapter 8

I'd Rather Be Playing Calculus:

Evans Monica (The University of Texas at Dallas, USA)

Chapter 9

Game Literacy:

Schott Gareth (University of Waikato, New Zealand)
Selwyn Neil (London Knowledge Lab, UK)

Chapter 10

Unifying Instructional and Game Design

Schwartz David I. (Rochester Institute of Technology, USA)
Bayliss Jessica D. (Rochester Institute of Technology, USA)

Chapter 11

A Theoretical Background for Educational Video Games:

Szilas Nicolas (TECFA, FPSE, University of Geneva, Switzerland)
Acosta Martin (Escuela de Matematicas, Universidad Industrial de Santander, Bucaramanga, Colombia)

Section 3: Psychological Approach to Game-Based Learning: Emotions, Motivation and Engagement

Chapter 12

ARGing for Multilingual Motivation in Web 2.0:

Hainey Thomas (University of the West of Scotland, Scotland)
Connolly Thomas (University of the West of Scotland, Scotland)
Stansfield Mark (University of the West of Scotland, Scotland)
Boyle Liz (University of the West of Scotland, Scotland)

Chapter 13

Computer Games for Affective Learning

Dormann Claire (University of Ottawa, Canada)
Whitson Jennifer R. (Carleton University, Canada)
Biddle Robert (Carleton University, Canada)

Chapter 14

Motivating By Design:

Toprac Paul (Southern Methodist University, USA)

Chapter 15

Assessing Engagement in Serious Educational Games:

Annetta Leonard A. (North Carolina State University, USA)
Lamb Richard (North Carolina State University, USA)
Bowling Brandy (North Carolina State University, USA)
Cheng Rebecca (North Carolina State University, USA)

Chapter 16

Games that Motivate to Learn:

Deen Menno (Fontys University of Applied Sciences, The Netherlands)
Schouten Ben A.M. (Fontys University of Applied Sciences, The Netherlands)

Chapter 17

Theories of Motivation for Adults Learning with Games

Whitton Nicola (Manchester Metropolitan University, UK)

Chapter 18

Collaborative Learning in Massively Multiplayer Online Games:

Voulgari Iro (University of Patras, Greece)
Komis Vassilis (University of Patras, Greece)

Chapter 19

How Digital Gaming Enhances Non-Formal and Informal Learning

Aranda Daniel (Universitat Oberta de Catalunya, Spain)
Sánchez-Navarro Jordi (Universitat Oberta de Catalunya, Spain)

Chapter 20

Understanding Serious Gaming:

Haring Priscilla (VU University Amsterdam, The Netherlands)
Chakinska Dimitrina (VU University Amsterdam, The Netherlands)
Ritterfeld Ute (Technical University of Dortmund, Germany)

Chapter 21

Using Spatial Audio in Game Technology for Expressing Mathematical Problems to Blind Students

Neff Flaithrí (Limerick Institute of Technology, Ireland)
Pitt Ian (University College Cork, Ireland)

Chapter 22

Mobile Gaming Environment:

Shin Namsoo (University of Michigan, USA)
Norris Cathleen (University of North Texas, USA)
Soloway Elliot (University of Michigan, USA)

Chapter 23

Affective Gaming in Education, Training and Therapy:

Hudlicka Eva (Psychometrix Associates, Inc., USA)

Chapter 24

Gestural Motivation, Learning and Evaluation using Interactive Game Design

Danylak Roman (Stockholm University, Sweden)

Section 4: User-Centered Approach to Game-Based Learning: Accounting for Users' Differences, Specificities and Disabilities

Chapter 25

Hints for Improving Motivation in Game-Based Learning Environments

Marty Jean-Charles (University of Savoie, France)
Carron Thibault (University of Savoie, France)

Chapter 26

Exploring the Gender Differences of Student Teachers when using an Educational Game to Learn Programming Concepts

Ng Eugenia M. W. (The Hong Kong Institute of Education, Hong Kong SAR, China)

Chapter 27
Designing Games to Motivate Student Cohorts through Targeted Game Genre Selection
de Byl Penny (Bond University, Australia)
Brand Jeffrey E. (Bond University, Australia)

Chapter 28
Game-Based Learning:
Amon Krestina L. (The University of Sydney, Australia)
Campbell Andrew J. (The University of Sydney, Australia)

Chapter 29
As You Like It:
Linek Stephanie B. (German National Library of Economics (ZBW), Germany)

Chapter 30
Engaging the Un-Engageable
Carr John (University of Nottingham, UK)
Blanchfield Peter (University of Nottingham, UK)

Chapter 31
A Reference Architecture for Game-Based Intelligent Tutoring
Maciuszek Dennis (University of Rostock, Germany)
Martens Alke (University of Rostock, Germany)

Chapter 32
Effective Game use in Neurorehabilitation:
Perry Joel C. (TECNALIA Research & Innovation, Spain)
Andureu Julien (TECNALIA Research & Innovation, Spain)
Cavallaro Francesca Irene (TECNALIA Research & Innovation, Spain)
Veneman Jan (TECNALIA Research & Innovation, Spain)
Carmien Stefan (TECNALIA Research & Innovation, Spain)
Keller Thierry (TECNALIA Research & Innovation, Spain)

Chapter 33
Serious Linguistic Games as Intelligent Tutoring Systems
Howell Stephen (University College Dublin, Ireland)
Veale Tony (University College Dublin, Ireland)

Chapter 34
Motivating the Demotivated Classroom:
Sariadaki Maria (National and Kapodistrian University of Athens, Greece)
Mourlas Constantinos (National and Kapodistrian University of Athens, Greece)

Section 5: Curricular Approach to Game-Based Learning: Integrating Video Games in Instructional Settings

Chapter 35
Field Report:
Bösche Wolfgang (Technische Universität Darmstadt, Germany)
Kattner Florian (Technische Universität Darmstadt, Germany)

Chapter 36
Students Using Indigenous Knowledge in Video Game Creation to Develop Design Thinking Skills
Anderson Professor Neil (James Cook University, Australia)
Courtney Lyn (James Cook University, Australia)

Chapter 37
Integration of Educational Games in Synchronous Virtual Classroom:
Rossiou Eleni (University of Macedonia, Greece)

Chapter 38
Playful Pedagogies:
Williamson Ben (Futurelab, UK)
Sandford Richard (Futurelab, UK)

Chapter 39
Game-Based Learning with a Dialogic Teaching Approach:
Tan Wee Hoe (University of Warwick, UK)
Johnston-Wilder Sue (University of Warwick, UK)
Neill Sean (University of Warwick, UK)

Chapter 40
Modifying Commercial Off-The-Shelf (COTS) Games for Use in Education
Flynn Ryan (University of Greenwich, UK)

Chapter 41
Promoting Sexual Health Education via Gaming:
Chib Arul (Nanyang Technological University, Singapore)

Chapter 42
Developing Educational Games for Engineering Education:
Srinivasan Vinod (Texas A&M University, USA)
Butler-Purry Karen (Texas A&M University, USA)
Pedersen Susan (Texas A&M University, USA)

Chapter 43
Developing Video Games for Physics Education
Anagnostou Kostas (Ionian University, Greece)
Pappa Anastasia (alibreto Science Communication and Education, Greece)

Chapter 44
Practical Applications of Serious Games in Education
Axe Helen (PIXELearning, UK)
Routledge Helen (PIXELearning, UK)

Chapter 45
Game-Based Learning for Knowledge Sharing and Transfer:
Pappa Dimitra (NCSR Demokritos, Greece)
Dunwell Ian (Serious Games Institute, UK)
Protopsaltis Aristidis (Serious Games Institute, UK)
Pannese Lucia (Imaginary srl, Italy)
Hetzner Sonia (Friedrich-Alexander-Universität Erlangen-Nürnberg, Germany)
de Freitas Sara (Serious Games Institute, UK)
Rebolledo-Mendez Genaro (Universidad Veracruzana, Mexico)

Chapter 46
Exploring Educational Video Game Design:
Åkerfeldt Anna (Stockholm University, Sweden)
Selander Staffan (Stockholm University, Sweden)

Chapter 47
Emerging Paradigms in Legal Education:
Lettieri Nicola (Institute for Development of Vocational Training, Italy)
Fabiani Ernesto (Università del Sannio, Italy)
Polcini Antonella Tartaglia (Università del Sannio, Italy)
De Chiara Rosario (Università degli Studi di Salerno, Italy)
Scarano Vittorio (Università degli Studi di Salerno, Italy)

Chapter 48
Computer Games for Algorithm Learning
Shabanah Sahar (King Abdul-Aziz University, Saudi Arabia)

Chapter 49
Context-Free Educational Games:
Dai Vasiliki (Secondary School Teacher of English, Greece)
Daloukas Vasilis (Secondary School Teacher of Informatics, Greece)
Rigou Maria (University of Patras, Greece)
Sirmakessis Spiros (Technological Institution of Mesolonghi, Greece & Research Academic Computer Technology Institute (R.A. CTI), Greece)

Chapter 50
A Study on Whether Digital Games can Effect Spatial Reasoning Skills
Corradini Andrea (IFKI, University of Southern Denmark, 6000 Kolding, Denmark)

Chapter 51
LEADER.edu:
Ruben Brent D. (Rutgers University, USA)
Immordino Kathleen M. (Rutgers University, USA)
Tromp Sherrie (Rutgers University, USA)
Agnew Brian (Rutgers University, USA)

Chapter 52

Digital Propensity:

DaCosta Boaventura (Solers Research Group, USA)

Nasah Angelique (Solers Research Group, USA)

Kinsell Carolyn (Solers Research Group, USA)

Seok Soonhwa (The Center for Research on Learning—eLearning Design Lab, University of Kansas, USA)

Order Your Copy Today!

Name: _____

Organization: _____

Address: _____

City, State, Zip: _____

Country: _____

Tel: _____

Fax: _____

E-mail: _____

Enclosed is check payable to IGI Global in
US Dollars, drawn on a US-based bank

Credit Card Mastercard Visa Am. Express

3 or 4 Digit Security Code: _____

Name on Card: _____

Account #: _____

Expiration Date: _____