

# CONTEMPORARY EDUCATIONAL TECHNOLOGY

---

A Quarterly International Journal

e-ISSN: 1309-517X

**April 2023**  
**Volume 15**  
**Issue 2**



*This page is intentionally left blank*

## CONTEMPORARY EDUCATIONAL TECHNOLOGY

---

*Contemporary Educational Technology* is a scholarly international journal focusing on theory, research, and development in the field of educational technology.

The journal assigns highest priority to rigorous studies of quantitative, qualitative, and mixed paradigms on topics related to theories and applications of educational technology as well as instructional design in various educational settings including both formal and non-formal contexts.

The journal also publishes articles on empirically-based evaluation studies and theoretically-based development papers. When appropriate and possible, development papers should highlight links between theory and practice of educational technology.

Moreover, each issue of the journal publishes comprehensive book reviews, interviews, comments, and research abstracts on current issues in the field of educational technology and instructional design.

**Publisher:** Bastas

**Publisher Contact:** Montenegro Headquarters

Bastas Publications DOO

Balšića 47, Podgorica 81000, Montenegro

Phone: +382 68 160 475

E-mail: [info@bastas.me](mailto:info@bastas.me)

Web: <https://www.bastas.me>

**London Office, UK:**

Bastas Publications LTD

71-75, Shelton Street, Covent Garden, London, United Kingdom, WC2H 9JQ

E-mail: [contact@bastas.co.uk](mailto:contact@bastas.co.uk)

## ABSTRACTING / INDEXING

---

*Contemporary Educational Technology* is listed by the following indexes:

[Cabell's Directory](#)

[CrossRef](#)

[Current Index to Journals in Education \(CIJE\)](#)

[EBSCO - Education Research Complete](#)

[ERIC](#)

[ERIH PLUS](#)

[Google Scholar](#)

[OpenAIRE](#)

[ProQuest](#)

[PSYINDEX](#)

[Scilit](#)

[SCOPUS](#)

[Sherpa Romeo](#)

[Ulrich's Periodicals Directory](#)

## EDITORIAL BOARD

---

### Editors-in-Chief

**Jorge Luis Bacca-Acosta**, Fundación Universitaria Konrad Lorenz, Colombia

**Kaushal Kumar Bhagat**, Centre for Educational Technology, Indian Institute of Technology, Kharagpur, India-721302

**Tufan Adiguzel**, Ozyegin University, Turkey

### Section Editors

**Brian Garner**, Deakin University, Australia

**Emrah Soykan**, Near East University, Cyprus

**Rob Koper**, Open University of the Netherlands, The Netherlands

**Siu Cheung Kong**, The Hong Kong Institute of Education, Hong Kong

**Timothy Teo**, Murdoch University, Australia

### Editorial Board Members

**Abdurrahman Al Lily**, King Faisal University, Saudi Arabia

**Ali Simsek**, Bahcesehir University, Turkey

**Alison Rossett**, San Diego State University, USA

**Andri Ioannou**, Cyprus University of Technology, Cyprus

**Arif Altun**, Hacettepe University, Turkey

**Balakrishnan Muniandy**, Universiti Sains Malaysia, Malaysia

**Barbara A. Bichelmeyer**, Indiana University, USA

**Brandford Bervell**, University of Cape Coast, Cape Coast, Ghana

**Cristina Diordieva**, Nanyang Technological University, Singapore

**Chin-Chung Tsai**, National Taiwan Normal University, Taiwan

**David W. Shaffer**, University of Wisconsin, USA

**David Wiley**, Brigham Young University, USA

**Demetrios G. Sampson**, University of Piraeus, Greece

## EDITORIAL BOARD

---

**Gilly Salmon**, University of Leicester & Education Alchemists Ltd, United Kingdom

**Ibrahim Arpacı**, Bandirma Onyedi Eylul University, Turkey

**J. Michael Spector**, University of North Texas, USA

**John M. Keller**, Emeritus, Florida State University, USA

**Keith Sawyer**, Washington University, USA

**Kiyoshi Nakabayashi**, Chiba Institute of Technology, Japan

**Marcelo Milrad**, Linnaeus University, Sweden

**Michael M. Grant**, University of South Carolina, United States

**Michael Simonson**, Nova Southeastern University, USA

**Norbert M. Seel**, University of Freiburg, Germany

**Paul A. Kirschner**, Open University of the Netherlands, The Netherlands

**Richard A. Schwier**, University of Saskatchewan, Canada

**Robert D. Tennyson**, University of Minnesota, USA

**Stamatis Papadakis**, University of Crete, Greece

**Stephen Kerr**, Emeritus, University of Washington, USA

**Steven M. Ross**, Johns Hopkins University, USA

**Su Luan Wong**, University Putra Malaysia, Malaysia

**Tony Bates**, Tony Bates Associates Ltd, Canada

### Managing Editors

**Mert Bastas**, Near East University, Cyprus

E-mail: [editor@cedtech.net](mailto:editor@cedtech.net)

**Esma Usak**, Bastas Publications DOO, Montenegro

E-mail: [info@bastas.me](mailto:info@bastas.me)

### Founding Editor

**Ali Simsek**, Turkey

## CONTENTS

---

Volume 15 – Issue 2 – April 2023

- Gamification in education: A citation network analysis using CitNetExplorer** ep405  
*Ritesh Chugh, Darren Turnbull*  
<https://doi.org/10.30935/cedtech/12863>
- Digital skills and ethical knowledge of teachers with TPACK in higher education** ep406  
*Isabel María Gómez-Trigueros*  
<https://doi.org/10.30935/cedtech/12874>
- The effects of TPACK and facility condition on preservice teachers' acceptance of virtual reality in science education course** ep407  
*M. Anas Thohir, Erif Ahdhianto, Siti Mas'ula, Fitri April Yanti, Moh Irma Sukarelawan*  
<https://doi.org/10.30935/cedtech/12918>
- Key success factors for transforming classrooms into learning communities in digital learning ecosystem at secondary schools in Thailand** ep408  
*Kulthida Tuamsuk, Lan Thi Nguyen, Issara Kanjug, Grichawat Lowatcharin, Teeradej Manakul, Kornwipa Poonpon, Weerachai Sarakorn, Anucha Somabut, Niwat Srisawasdi, Saksuriya Traiyarach*  
<https://doi.org/10.30935/cedtech/12920>
- TPACK-SAMR digital literacy competence, technostress, and teaching performance: Correlational study among EFL lecturers** ep409  
*Afif Ikhwanul Muslimin, Nur Mukminatien, Francisca Maria Ivone*  
<https://doi.org/10.30935/cedtech/12921>
- The impact of gamified learning using Quizizz on ESL learners' grammar achievement** ep410  
*Anh Tuan Pham*  
<https://doi.org/10.30935/cedtech/12923>
- The mediating role of academic self-regulation in the relationship between autocorrect use and vocabulary size** ep411  
*Gholamreza Gholizadeh, Mehrak Rahimi*  
<https://doi.org/10.30935/cedtech/12937>
- A systematic review on the effectiveness of children's interactive reading applications for promoting their emergent literacy in the multimedia context** ep412  
*Chen Chuang, Nurullizam Jamiat*  
<https://doi.org/10.30935/cedtech/12941>

## CONTENTS

---

<b>Physics teaching via dialogic discussions about circus activities</b>	ep413
<i>Alexander Volfson, Haim Eshach, Yuval Ben-Abu</i>	
<a href="https://doi.org/10.30935/cedtech/12964">https://doi.org/10.30935/cedtech/12964</a>	
<b>EFL students' participations and teachers' roles in online discussion forum for critical media literacy learning</b>	ep414
<i>Rida Afrilyasanti, Yazid Basthomi, Evynurul Laily Zen</i>	
<a href="https://doi.org/10.30935/cedtech/12965">https://doi.org/10.30935/cedtech/12965</a>	
<b>Learning assessment challenges from students and faculty perception in times of COVID-19: A case study</b>	ep415
<i>Katherina Gallardo, Leonardo Glasserman, Nohemi Rivera, Lizette Martínez-Cardiel</i>	
<a href="https://doi.org/10.30935/cedtech/12985">https://doi.org/10.30935/cedtech/12985</a>	
<b>The effects of integrating digital storytelling with metacognition strategies (DSTMC) learning model to enhance communication abilities</b>	ep416
<i>Kannattha Chaisriya, Siriwatchana Kaeophanuek, Lester Gilbert</i>	
<a href="https://doi.org/10.30935/cedtech/12986">https://doi.org/10.30935/cedtech/12986</a>	
<b>Integrating cognitive presence strategies: A professional development training for K-12 teachers</b>	ep417
<i>Tufan Adiguzel, Mehmet Haldun Kaya, Mehmet Akin Bulut, Sinem Emine Mete, Yesim Nalkesen-Akin</i>	
<a href="https://doi.org/10.30935/cedtech/12987">https://doi.org/10.30935/cedtech/12987</a>	
<b>The use of video as media in distance learning for deaf students</b>	ep418
<i>Mohamad Ahmad Saleem Khasawneh</i>	
<a href="https://doi.org/10.30935/cedtech/13012">https://doi.org/10.30935/cedtech/13012</a>	
<b>Comparison of the efficacy between game-based learning and pamphlet on enhancing recognition of common cutaneous malignancies in Thai younger adults</b>	ep419
<i>Dichitchai Mettarikanon, Weeratian Tawanwongsri, Adisak Wanchai, Naparat Chookerd</i>	
<a href="https://doi.org/10.30935/cedtech/13013">https://doi.org/10.30935/cedtech/13013</a>	
<b>Developing media of virtual laboratory of science: To support as a pioneer of cyber-university</b>	ep420
<i>Adisti Yuliastrin, Rian Vebrianto, Mery Berlian, Musa Thahir</i>	
<a href="https://doi.org/10.30935/cedtech/13032">https://doi.org/10.30935/cedtech/13032</a>	



## CONTENTS

---

- ChatGPT in education: Strategies for responsible implementation** ep421  
*Mohanad Halaweh*  
<https://doi.org/10.30935/cedtech/13036>
- The role of school socioeconomic status in school-wide technology integration in the U.S.** ep422  
*Shonn Cheng, Mary Parker*  
<https://doi.org/10.30935/cedtech/13059>
- Autonomous learning and the use of digital technologies in online English classrooms in higher education** ep423  
*Damar Isti Pratiwi, Budi Waluyo*  
<https://doi.org/10.30935/cedtech/13094>