Educational Innovations and Applications

Proceedings of the 2nd Eurasian Conference on Educational Innovation 2019 (ECEI 2019), Singapore, January 27- 29, 2019

Educational Innovations and Applications

Editors:

Charles Tijus Teen-Hang Meen Chun-Yen Chang



Editors:

Charles Tijus

Human & Artificial Cognition, Université de Vincennes - Paris 8

Teen-Hang Meen

Distinguished Professor, Department of Electronic Engineering, National Formosa University, Yunlin, Taiwan

Chun-Yen Chang

Chair Professor, Director of Science Education Center, National Taiwan Normal University

ISBN: 978-981-14-2064-1 (eBook) DOI: 10.35745/978-981-14-2064-1

Proceedings of the 2nd Eurasian Conference on Educational Innovation 2019(ECEI 2019), Singapore, January 27-29, 2019

Published by International Institute of Knowledge Innovation and Invention Private Limited (IIKII PTE LTD), Singapore.

© International Institute of Knowledge Innovation and Invention Private Limited (IIKII PTE LTD) 2019

This work is subject to copyright. All rights are reserved by the Publisher, whether the whole or part of the material is concerned, specifically the rights of translation, reprinting, reuse of illustrations, recitation, broadcasting, reproduction on microfilms or in any other physical way, and transmission or information storage and retrieval, electronic adaptation, computer software, or by similar or dissimilar methodology now known or hereafter developed. The use of general descriptive names, registered names, trademarks, service marks, etc. in this publication does not imply, even in the absence of a specific statement, that such names are exempt from the relevant protective laws and regulations and therefore free for general use. The publisher, the authors and the editors are safe to assume that the advice and information in this book are believed to be true and accurate at the date of publication. Neither the publisher nor the authors or the editors give a warranty, express or implied, with respect to the material contained herein or for any errors or omissions that may have been made.

Editorial

This volume represents the proceedings of the 2nd Eurasian Conference on Educational Innovation 2019(ECEI 2019). This conference was organized by the International Institute of Knowledge Innovation and Invention(IIKII), and held January 27-29, 2019 in Singapore. The conference provided a unified communication platform for researchers in a range of topics, such as K-12 Education, University/College Education, Cognitive, Affective, and Social Aspects of Teaching and Learning, Teacher Training/ Education, Professional Development, Curriculum Development, Educational Measurement, Evaluation, and Assessment, Cooperative/Collaborative Learning and Environments, Problem/Project Based Learning, Didactic/Pedagogical Issues, STEM Education, Teaching/Learning Strategies, Methodologies for Educational Research, Metaphors, Analogies, Models, Animations or Simulations in Teaching and Learning, Instructional Design News, Distance Education, E-Learning, Educational Technology, ICT in Education, Blended Learning, Knowledge Management, Learning Management Systems, Human Computer Interactions, Web 2.0 Tools for Education, Other Fields About Education, Educational Innovation: Ethics and Values, Educational Innovation: Literature and Media, Educational Innovation: Philosophical Investigations, Educational Innovation: Religious Perspectives and Projects and other related fields. This proceedings volume enables interdisciplinary collaboration of science and engineering technologists in the academic and industrial fields, as well as networking internationally

Preface

The Second Eurasian Conference on Educational Innovation 2019 (ECEI 2019) was held in Singapore on 27–29 January, 2019, and organized by International Institute of Knowledge Innovation and Invention (IIKII), The International Society of Educational Research (iSER), and Science Education Center of National Taiwan Normal University. This conference provided a communication platform for researchers on the topic of educational innovations. This conference aims to enable interdisciplinary collaboration between educators and experts from other areas in the academic and industrial fields as well as international networking. The topics include as follows:

- K-12 Education
- University/College Education
- Cognitive, Affective, and Social Aspects of Teaching and Learning
- Teacher Training/Education
- Professional Development
- Curriculum Development
- Educational Measurement, Evaluation, and Assessment
- Cooperative/Collaborative Learning and Environments
- Problem/Project Based Learning
- Didactic/Pedagogical Issues
- STEM Education
- Teaching/Learning Strategies
- Methodologies for Educational Research

- Metaphors, Analogies, Models, Animations or Simulations in Teaching and Learning
- Instructional Design
- Distance Education
- E-Learning
- Educational Technology
- ICT in Education
- Blended Learning
- Knowledge Management
- Learning Management Systems
- Human Computer Interactions
- Web 2.0 Tools for Education
- Big data in educational learning analytics
- Digital and virtual learning environments and spaces
- Artificial Intelligence (AI) in educational applications
- Educational Extended Reality (XR)

ECEI 2019 received a total of 313 submissions with 231 papers finally accepted and presented in the conference. The committees of ECEI 2019 selected excellent 147 papers to publish in the proceedings. It is a fine starting point for establishing an international network to facilitate future science and engineering technologists in the academic and industrial fields.

Teen-Hang Meen Tainan, Taiwan