

International Conference on e-Learning 2019

Held at the Multi-Conference on Computer Science and
Information Systems (MCCSIS 2019)

Porto, Portugal
16-19 July 2019

Editors:

Miguel Baptista
Pedro Isaías

Piet Kommers
Luís Rodrigues

ISBN: 978-1-5108-9240-8

Printed from e-media with permission by:

Curran Associates, Inc.
57 Morehouse Lane
Red Hook, NY 12571



Some format issues inherent in the e-media version may also appear in this print version.

Copyright© (2019) by International Association for Development of the Information Society (IADIS)
All rights reserved.

Printed by Curran Associates, Inc. (2019)

For permission requests, please contact International Association for Development of the Information Society (IADIS) at the address below.

International Association for Development of the Information Society (IADIS)
Rua Sao Sebastiao Da Pedreira
No. 100, 30, 1050-209
Lisbon, Portugal

Phone: 351 21 3151373
Fax: 351 21 3151244

secretariat@iadis.org

Additional copies of this publication are available from:

Curran Associates, Inc.
57 Morehouse Lane
Red Hook, NY 12571 USA
Phone: 845-758-0400
Fax: 845-758-2633
Email: curran@proceedings.com
Web: www.proceedings.com

TABLE OF CONTENTS

FOREWORD	xi
PROGRAM COMMITTEE	xv
KEYNOTE LECTURE	xix
WORKSHOP	xx

FULL PAPERS

THREE-DIMENSIONAL COLLABORATIVE VIRTUAL ENVIRONMENTS TO ENHANCE LEARNING MATHEMATICS <i>Rosa Maria Reis</i>	3
DO STUDENT RESPONSES DECREASE IF TEACHERS KEEP ASKING QUESTIONS THROUGH STUDENT RESPONSE SYSTEMS: A QUANTITATIVE RESEARCH <i>Paul Lam, Carmen K. M. Lau, Kevin Wong and Chi Him Chan</i>	11
A SEQUENTIAL ANALYSIS OF TEACHING BEHAVIORS TOWARD THE USE OF BLACKBOARD LEARNING MANAGEMENT SYSTEM <i>Yu-Hang Li, Chien-Yuan Su and Yue Hu</i>	19
THE IMPACT OF E-LEARNING ON LEARNER KNOWLEDGE SHARING QUALITY <i>Sameh M. Reyad, Anjum Razzaque, Sherine Badawi, Allam Hamdan, Reem Khamis and Abdalmuttaleb Al-Sartawi</i>	26
ASSESSING OPEN-BOOK-OPEN-WEB EXAM IN HIGH SCHOOLS: THE CASE OF A DEVELOPING COUNTRY <i>Mary Ann Barbour El Rassi</i>	33
CRISS: A CLOUD BASED PLATFORM FOR GUIDED ACQUISITION, EVALUATION AND CERTIFICATION OF DIGITAL COMPETENCE <i>Igor Balaban, Danijel Filipovic and Marko Peras</i>	41
LEARNING READINESS WHEN SHARING KNOWLEDGE WHILE E-LEARNING <i>Anjum Razzaque, Allam M. Hamdan, Mukhtar Al-Hashimi and Esra S. Aldahean</i>	49
LEARNING RELATED DEVICE USAGE OF GERMAN AND INDIAN STUDENTS <i>Joachim Griesbaum, Tessy Thadathil and Sophie März</i>	57
5G TECHNOLOGY AND ITS APPLICATIONS TO MUSIC EDUCATION <i>Adriano Baratè, Goffredo Haus, Luca A. Ludovico, Elena Pagani and Nello Scarabottolo</i>	65

TEACHER ATTITUDES REGARDING THE USE OF GAME-BASED PROGRAMMING TOOLS IN K-12 EDUCATION <i>Chien-Yuan Su, Yue Hu and Yu-Hang Li</i>	73
THE DYNAMICS OF SUCCESSFUL TEAMS IN A MASSIVE OPEN ONLINE COURSE <i>Majd Alomar</i>	80
MODELS, PROCESS AND TOOL TO ASSIST COOPERATIVE SCENARIZATION OF DISTANT LEARNING MODULES <i>Christophe Marquesuzaà, Patrick Etcheverry, Pantxika Dagorret, Philippe Lopistéguy, Thierry Nodenot and Marta Toribio Fontenla</i>	87
O TEU MESTRE- A DISTANCE LEARNING PLATFORM (RESULTS) <i>Daniel Azevedo and Paula Morais</i>	95
COMPARING THREE INPUT DEVICES FOR SKETCHING ASSIGNMENTS IN E-EXAMS IN COMPUTER SCIENCE <i>Suhas Govind Joshi and Live Årnot Brastad</i>	105
STUDENTS' TEAM-LEARNING INSPIRES CREATIVITY <i>Sayed Jawwad, Mukhtar AL-Hashimi, Anjum Razzaque and Allam Hamdan</i>	116
FLIPPED CLASSROOM ASSESSMENT: A LEARNING PROCESS APPROACH <i>Paul Lam, Carmen K. M. Lau and Chi Him Chan</i>	123
OPEN PROFESSIONAL DEVELOPMENT OF MATH TEACHERS THROUGH AN ONLINE COURSE <i>Anna Brancaccio, Massimo Esposito, Marina Marchisio, Matteo Sacchet and Claudio Pardini</i>	131
THE MODERATING ROLE OF M-LEARNING ACTIVITIES IN THE RELATIONSHIP BETWEEN STUDENTS' SOCIAL CAPITAL AND KNOWLEDGE SHARING <i>Marya Ali Al-Ansari, Allam Hamdan, Anjum Razzaque, Sameh Reyad and Abdalmuttaleb Al-Sartawi</i>	139
E-LEARNING MODEL FOR TRAINING OF DRIVERS IN TRAFFIC BASED ON FREQUENT MISTAKES ON THE PRACTICAL EXAM <i>Goran Jovanov, Jovica Vasiljevic, Nemanja Jovanov, Dejan Antic and Djordje Vranjes</i>	147
E-LEARNING - EVOLUTION, TRENDS, METHODS, EXAMPLES, EXPERIENCE <i>Eugenia Smyrnova-Trybulska</i>	155
IMPACT OF EDUCATIONAL TECHNOLOGY ON STUDENTS' PERFORMANCE <i>Maryam Murad, Anjum Razzaque, Allam Hamdan and Anji Benhamed</i>	163
DESIGN AND IMPLEMENTATION OF AN ENGLISH LESSON BASED ON HANDWRITING RECOGNITION AND AUGMENTED REALITY IN PRIMARY SCHOOL <i>Junyan Xu, Sining He, Haozhe Jiang, Yang Yang and Su Cai</i>	171
E-LEARNING AND STUDENTS' PERFORMANCE: GENDER PERSPECTIVE <i>Maryam Murad, Anjum Razzaque, Allam Hamdan and Anji Benhamed</i>	179
LIASCRIP: A DOMAIN-SPECIFIC-LANGUAGE FOR INTERACTIVE ONLINE COURSES <i>André Dietrich</i>	186
INSTRUCTIONAL DESIGN TO "TRAIN THE TRAINERS": THE START@UNITO PROJECT AT THE UNIVERSITY OF TURIN <i>Marina Marchisio, Matteo Sacchet and Daniela Salusso</i>	195

DEVELOPMENT OF AN ONLINE TOOL BASED ON CFD AND OBJECT-ORIENTED PROGRAMMING TO SUPPORT TEACHING FLUID MECHANICS <i>Concepción Paz, Eduardo Suárez, Adrián Cabarcos and Christian Gil</i>	203
A CASE STUDY EXAMINING THE COST MEASUREMENTS IN PRODUCTION AND DELIVERY OF A MASSIVE OPEN ONLINE COURSE (MOOC) FOR TEACHING THE RELATIONSHIP BETWEEN HUMAN HEALTH AND CLIMATE CHANGE <i>Edward Meinert, Abrar Alturkistani, Kris A Murray, Philippe Sabatier and Josip Car</i>	211
INCLUSIVE DIGITAL LEARNING THROUGH SERIOUS GAMES: A CLIPPING FOR INCLUSION <i>Paula Escudeiro, Dirceu Teixeira, Bruno Galasso, Nuno Neto and Flávio Costa</i>	219
GAMIFICATION OF IN-CLASSROOM DIAGRAM DESIGN FOR SCIENCE STUDENTS <i>Andreas Mallas and Michalis Xenos</i>	227
“GAMING IN EDUCATION AND E-LEARNING: MOCK-TRIALS, MOCK-ELECTIONS AND CRISIS-SIMULATIONS FOR POLITICAL SCIENCES AND COMMUNICATIONS COURSES” <i>Marco Rimanelli and Krzysztof Gurba</i>	235

SHORT PAPERS

RESEARCH ON CHANGE AND GROWTH OF STUDENTS AND TEACHERS EXPERIENCED PROBLEM BASED LEARNING <i>Kyungwon Chang and Seonyoung Jang</i>	247
TWENTY-FIRST CENTURY INTERVIEWING FOR TWENTY-FIRST CENTURY JOBS. ARE WE PREPARING OUR STUDENTS FOR TODAY’S JOB MARKET? <i>John R. Lax and Ioannis Pantzalis</i>	252
ONLINE GRADUATE DEGREES: PERCEPTIONS OF MOROCCAN UNIVERSITY STUDENTS <i>Karima Slamti and Layla Ajrouh</i>	257
DEVELOPMENT OF AN ONLINE LABORATORY: APPLICATION FOR THE CHARACTERIZATION OF NTC TEMPERATURE SENSOR <i>Ameur Ikhlef, Boubekeur Boukhezzar and Nora Mansouri</i>	261
DIGITAL COMPETENCE IN THE INITIAL TRAINING OF THE TELESECUNDARIA TEACHER. CASE STUDY <i>Anna Luz Acosta Aguilera, Rubén Edel Navarro and Yadira Navarro Rangel</i>	266
LEARNING STRATEGIES THAT CONTRIBUTE TO ACADEMIC EFFICIENCY IN RELATION TO THE BUSINESS SCHOOL STUDENT’S LEARNING STYLES <i>María de Jesús Araiza Vázquez, Mayra Elizabeth Brosig Rodríguez and Claudia Ivonne Niño Rodríguez</i>	271
SOCIAL LEARNING NETWORKING DIGITAL AFFORDANCE DESIGN <i>Ben Chang and Rotua Zandrato</i>	277
SECURITY VULNERABILITIES IN MODERN LMS <i>Alexei Scerbakov, Frank Kappe and Nikolai Scerbakov</i>	282

EFFECTS OF EPISTEMIC PREPARATIVE ACTIVITIES ON STUDENTS' UNDERSTANDING IN A FLIPPED CLASSROOM <i>Wakako Fushikida, Hiroki Oura and Ryo Yoshikawa</i>	287
DEVELOPMENT OF PROJECT-BASED LEARNING (PBL) IN BLENDED LEARNING MODE FOR THE ACQUISITION OF DIGITAL COMPETENCE <i>Olga Arranz-García and Vidal Alonso Secades</i>	291
PROFUTURO, A SOCIAL INITIATIVE TO IMPROVE EDUCATION WITH E-LEARNING ANALYTICAL TOOLS <i>Vidal Alonso Secades, Olga Arranz-García and Alfonso Jose López Rivero</i>	296
DESIGN OF A NEW SCALE TO MEASURE THE LEARNER EXPERIENCE IN E-LEARNING SYSTEMS <i>Yassine Safsouf, Khalifa Mansouri and Franck Poirier</i>	301
APPLICATION OF ALPHA AND BETA BRAINWAVES ON E-LEARNING PROJECTS IN TERMS OF EXPANDING CRITICAL AND COGNITIVE SKILLS: AN EXPERIMENTAL APPROACH <i>Miltiadis Staboulis and Irene Lazaridou</i>	305

REFLECTION PAPERS

THE UAV SIMULATION COMPLEX FOR OPERATOR TRAINING <i>Oleksandr Volkov, Mykola Komar, Kateryna Synytsya and Dmytro Volosheniuk</i>	313
E-LEARNING ASSISTED DRAMATIZATION FOR COMMUNICATIVE LANGUAGE ABILITY AND COLLABORATIVE LEARNING <i>Young Mee Kim</i>	317
GENERATING GRAPHS IN VIRTUAL REALITY <i>Simon So</i>	321
EXPERIENTIAL LEARNING WITH SANSAR PLATFORM – A CONCEPT OF MILITARY TRAINING <i>Malgorzata Gawlik-Kobylińska and Paweł Maciejewski</i>	325
A CRITIQUE OF JACQUES ELLUL (FRENCH PHILOSOPHER) ON TECHNOLOGY <i>George A Lotter</i>	329
MAKING VIRTUAL CLASSROOMS OF GOOGLE PLATFORM MORE REAL USING TRANSPARENT INTERACTIVE SCREEN-BOARD (tiSb-Albania) <i>Romeo Teneqexhi and Loreta Kuneshka</i>	333
FROM STYLES 0 TO STYLE E-0. COGNITIVE STYLES IN E-LEARNING <i>María Rosa Pinto Lobo</i>	337
CAN WE DESIGN AND TEACH TO IMPROVE STUDENT PERCEPTIONS OF “COHORT”? <i>Tom Whitford</i>	341

POSTERS

- MIXING EDUCATIONAL TECHNIQUES: E-LEARNING, FLIPPED CLASSROOM AND THE USE OF SOCIAL NETWORKS. AN EXPERIENCE IN A UNIVERSITY SETTING 349
Roberto Espejo Mohedano and Arturo Gallego Segador
- USING REN'PY AS A DIGITAL STORYTELLING TOOL TO ENHANCE STUDENTS' LEARNING 352
Hsiu-Ling Chen and Yun-Chi Chuang
- USING AN ONLINE FORUM TO ENHANCE THE LEARNING OF SPANISH GRAMMAR AS A SECOND LANGUAGE 355
Jiyoung Yoon

DOCTORAL CONSORTIA

- ORGANISATION OF KNOWLEDGE FROM TRACES OF HUMAN LEARNING 361
Baba Mbaye
- TECHNOLOGY-CONFIDENT TEACHERS ENABLING DEEP E-LEARNING PEDAGOGIES 366
Roy Rozario

AUTHOR INDEX