EDULEARN 18

10TH INTERNATIONAL CONFERENCE ON EDUCATION AND NEW LEARNING TECHNOLOGIES

PALMA (SPAIN)
2ND - 4TH OF JULY, 2018

CONFERENCE PROCEEDINGS

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L. Gómez Chova, A. López Martínez, I. Candel Torres
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CONFERENCE SESSIONS

ORAL SESSIONS, 2nd July 2018

Immersive Learning & Virtual Reality
Peer Learning and Teaching
21st Century Skills (1)
Students' Wellness and Wellbeing
Quality and Excellence in Teacher Training
English as a Foreign Language (1)
Mobile Learning
ICT in Education
Active Learning (1)

Virtual Reality in Education
Flipped Learning
Workplace Learning (1)
Joint and Dual Degrees
Teacher Training Experiences
Professional Development of Foreign Language Teachers
Programming and Coding Skills (1)
Technology Enhanced Learning (1)
Active and Game-Based Learning

Augmented Reality in Education
Learning by Doing & Experiential Learning
Workplace Learning (2)
University-Industry Collaboration
ICT Skills among Teachers (1)
Health Education Technologies
Programming and Coding Skills (2)
Educational Games Design
Active Learning (2)

Social Media and Social Networks in Education
Project, Problem and Inquiry-Based Learning
Entrepreneurship Education
International Collaboration Experiences
ICT Skills among Teachers (2)
Engineering Education
Learning Space Design
Digital Skills & Media Literacy
Dropout Prevention & Students' Motivation

POSTER SESSIONS, 2nd July 2018

Emerging Technologies in Education

Pedagogical Innovations and New Educational Trends

CONFERENCE SESSIONS

ORAL SESSIONS, 2nd July 2018

Immersive Learning & Virtual Reality
Peer Learning and Teaching
21st Century Skills (1)
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Workplace Learning (2)
University-Industry Collaboration
ICT Skills among Teachers (1)
Health Education Technologies
Programming and Coding Skills (2)
Educational Games Design
Active Learning (2)

Social Media and Social Networks in Education
Project, Problem and Inquiry-Based Learning
Entrepreneurship Education
International Collaboration Experiences
ICT Skills among Teachers (2)
Engineering Education
Learning Space Design
Digital Skills & Media Literacy
Dropout Prevention & Students' Motivation

POSTER SESSIONS, 2nd July 2018

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ORAL SESSIONS, 3rd July 2018

e-Learning Experiences (1)
Videos for Learning
Special Education (1)
Language Learning Education
Cultural Diversity & Inclusion (1)
Curriculum Design in Engineering
Learning Analytics (1)
Tutoring & Mentoring
Writing Skills and Performance

Learning Management Systems (LMS)
Serious Games
Special Education (2)
Technology Enhanced Learning (2)
Pre-Service Teacher Education
Language Learning: from ESP to EMI
Learning Analytics (2)
e-Assessment
Quality Assurance and Accreditation in Higher Education

Personalized Learning
Blended Learning
Teacher Training in Special Education
STEM Education (1)
Professional Development of Teachers
Language Learning Technologies
Informal Learning
New technologies in Assessment
Leadership and Management in Education

Massive Open Online Courses (MOOC)
Flipped Classroom
Special Needs and Inclusive Education
Maths and Statistics in Higher Education
Creativity in Education
English as a Foreign Language (2)
Gamification & Game-Based Learning
Assessment of Student Learning (1)
Management in Higher Education

e-Learning Experiences (2)
Effective Teaching Practices
Cultural Diversity & Inclusion (2)
STEM Education (2)
Soft Skills Development
Business and Accounting Education
21st Century Skills (2)
Assessment of Student Learning (2)
Sustainability Education

POSTER SESSIONS, 3rd July 2018

Experiences in Education

Global Issues in Education and Research

ORAL SESSIONS, 3rd July 2018

e-Learning Experiences (1)
Videos for Learning
Special Education (1)
Language Learning Education
Cultural Diversity & Inclusion (1)
Curriculum Design in Engineering
Learning Analytics (1)
Tutoring & Mentoring
Writing Skills and Performance

Learning Management Systems (LMS)
Serious Games
Special Education (2)
Technology Enhanced Learning (2)
Pre-Service Teacher Education
Language Learning: from ESP to EMI
Learning Analytics (2)
e-Assessment
Quality Assurance and Accreditation in Higher Education

Personalized Learning
Blended Learning
Teacher Training in Special Education
STEM Education (1)
Professional Development of Teachers
Language Learning Technologies
Informal Learning
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Flipped Classroom
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Maths and Statistics in Higher Education
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English as a Foreign Language (2)
Gamification & Game-Based Learning
Assessment of Student Learning (1)
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Cultural Diversity & Inclusion (2)
STEM Education (2)
Soft Skills Development
Business and Accounting Education
21st Century Skills (2)
Assessment of Student Learning (2)
Sustainability Education

POSTER SESSIONS, 3rd July 2018

Experiences in Education

Global Issues in Education and Research

VIRTUAL SESSIONS

21st Century Skills
Academic Research Projects
Augmented Reality
Barriers to Learning
Blended Learning
Collaboration Projects and Networks
Computer Supported Collaboration
Curriculum Design and Development
Design Thinking and Creativity
Diversity Issues, Women and Minorities
E-content Management and Development
e-Learning Projects and Experiences
Early Childhood and Preschool Education
Educating the Educators
Education and Globalization
Educational Management
Educational Software & Serious Games
Educational Trends and Best Practice Contributions
Emerging Technologies in Education
Enhancing Learning and the Undergraduate Experience
Entrepreneurship Curriculum
Ethical Issues in Education
Evaluation and Assessment
Evaluation and Assessment of Student Learning
Experiences in Research
Flipped Learning
Game Based Learning
Higher and Further Education
Higher Education Area: The Bologna Declaration and ECTS Experiences
Impact of Education on Development
Informal learning
Language Learning Innovations
Leadership in Education
Learning and Teaching Methodologies
Learning by doing & Experiential Learning
Learning Management Systems (LMS)
Lifelong Learning
Links between Education and Research
Massive Open Online Courses (MOOCs)
Mobile and Tablet Technologies
Mobile Learning
Multicultural Education
Neuroscience in Education
New Learning/Teaching Models
Online/Virtual Laboratories
Organizational, Legal, Policy and Financial Issues
Pre-service and In-service Teacher Experiences
Primary and Secondary Education
Problem and Project-Based Learning
Professional Development of Teachers
Quality Assurance and Accreditation
Social & Digital Media in Education
Special Education & Inclusive Learning
STEM in Education
Student Support in Education
Team-Based and Collaborative Learning
Technology-Enhanced Learning
The Impact of Web Technologies on Education
Training Educational Staff
Transferring Skills and Disciplines
University-Industry Cooperation
Virtual Learning Environments (VLEs)
Virtual Reality and 3D Applications
Vocational Training
Web 2.0 and Social Networking
Workplace Training and Employability Issues

VIRTUAL SESSIONS

21st Century Skills
Academic Research Projects
Augmented Reality
Barriers to Learning
Blended Learning
Collaboration Projects and Networks
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Curriculum Design and Development
Design Thinking and Creativity
Diversity Issues, Women and Minorities
E-content Management and Development
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Early Childhood and Preschool Education
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Education and Globalization
Educational Management
Educational Software & Serious Games
Educational Trends and Best Practice Contributions
Emerging Technologies in Education
Enhancing Learning and the Undergraduate Experience
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Ethical Issues in Education
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Experiences in Research
Flipped Learning
Game Based Learning
Higher and Further Education
Higher Education Area: The Bologna Declaration and ECTS Experiences
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Learning and Teaching Methodologies
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Lifelong Learning
Links between Education and Research
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Transferring Skills and Disciplines
University-Industry Cooperation
Virtual Learning Environments (VLEs)
Virtual Reality and 3D Applications
Vocational Training
Web 2.0 and Social Networking
Workplace Training and Employability Issues

COMPOSITION OF SHORT STORIES TO REDUCE SEXIST ATTITUDES AND JUSTIFICATION OF GENDER VIOLENCE 10749
A. Jimenez Sanchez, E. Vayas Ruiz

SENSORIAL EXPERIENCE APPLIED TO PRODUCT DESIGN TEACHING 10759
M. de Oliveira Santos, M. dos Santos Forcato, A. Guadagnin Dalberto

THE EFFECT OF GAMIFYING PHYSICS IN STUDENT MOTIVATION, ENGAGEMENT AND PERFORMANCE 10763
C. Amado, L. Roleda

IMPROVING STUDENT ENGAGEMENT IN A FLIPPED CLASSROOM 10773
M. Chapman, U. Hassein

A SYSTEMATIC REVIEW ON THE EFFECTIVENESS OF BUSINESS SIMULATION GAMES AND LEARNING PERFORMANCE 10774
S. Capelo-Badillo, A.B. Hernández-Lara, E. Serradell-López

THERE IS NO ONE RIGHT ANSWER: APPLYING TRANSFORMATIVE LEARNING THEORY TO REDUCE BIG DATA ANXIETY AMONG ADVERTISING STUDENTS 10781
A. Eckman

PROPRIOCEPTION, THE LITTLE KNOWN HUMAN'S SIXTH SENSE, AT THE RESCUE OF SCIENCE AND TECHNOLOGY LEARNING 10786
A. Blondin

USING SCIENTIFIC COMMUNICATION AND EDUCOMMUNICATION PRACTICES IN WEB 2.0 TO PRODUCE CULTURAL VIRAL CONTENT: AN EXPERIENCE PAPER 10791
H. Arellano, D. Vasquez, M. Vasquez

THE INCLUSION OF AUGMENTED REALITY IN HIGHER EDUCATION AS A TEACHING RESOURCE: DENTAL CATALOG RAO 10799
F. Leyva Picazzo, S.G. Flores Aguilar, G.R. Capetillo Hernández, L. Tiburcio Morteo, I. Esquivel Gámez, R. Cordoba Del Valle

SIMPLIFIED METHODS OF TRANSFORMING FUNCTIONAL MODELS INTO OBJECT ONES AND THEIR APPLICATION IN THE EDUCATIONAL PROCESS 10804
B. Pozdneev, P. Ovchinnikov, E. Obuhova, M. Sutyagin, A. Levchenko, D. Popov, V. Sharovatov

IDENTIFICATION OF SIMULATED HEALTH MANAGEMENT EDUCATION METHODOLOGIES 10812
I. Edwards

ELECTRONIC EDUCATIONAL PLATFORMS IN FOREIGN LANGUAGE TEACHING OF POSTGRADUATES 10813
A. Kovaleva, O. Anchugova, D. Kurmanova, M. Tkacheva, D. Zarifullina

LINKING TEACHING AND RESEARCH WITHIN UNDERGRADUATE PROGRAMMES: UK EVIDENCE 10819
A. Michael

MYGRAMMARLAB ANALYTICS FOR INDIVIDUAL TRACKING OF FOREIGN LANGUAGE TEACHING 10828
A. Kovaleva, O. Anchugova, M. Tkacheva, D. Kurmanova, D. Zarifullina

IMPLEMENTING VIRTUAL PROGRAMMING LAB ON AN ENGINEERING SCHOOL 10834
J.M. Cardoso, A. Vieira de Castro, R. Barroso, A. Rocha, R. Marques

EXPLORING THE FUNCTIONALITY OF LEARNING ANALYTICS IN FLIPPED LESSONS WITH INTEGRATED VIDEO IN AN UNDERGRADUATE MATHEMATICS COURSE 10835
M.T. Gastardo

ROBOTICS KINEMATIC EDUCATION THROUGH SIMSCAPE MULTIBODY SIMULATION AND EXPERIMENTAL EVALUATION WITH LEGO MINDSTORMS EV3 10842
G. Loreto-Gomez, S. Gonzalez-Garcia, J. Rodriguez-Arce, L.P. Vazquez-Lopez, H. Estrada-Mendoza, F.J. Perez-Romero

RE-EVALUATION OF THE STATUS QUO OF AUSTRIAN INDUSTRIAL ENGINEERING AND MANAGEMENT STUDY PROGRAMS: EMPIRICAL RESULTS AND KEY INSIGHTS 10848
B.M. Zunk, S. Swobodnik, U. Bauer

PRE-SERVICE EARLY CHILDHOOD TEACHER'S IMAGE OF 'GOOD TEACHING' AND QUALITY OF TEACHER 10853
S. Jeong, J.J. Youn

USE OF DIGITAL CONCEPT CARTOONS AND DIGITAL CONCEPT MAPS FOR ELIMINATION OF MISCONCEPTIONS IN SECONDARY SCHOOL MATHEMATICS COURSE: EXAMINATION OF OPINIONS OF TEACHERS 10858
B. Gökkurt Özdemir, H. Yildiz-Durak, F.G. Karaoğlan Yılmaz, R. Yılmaz

EXAMINATION OF RELATIONSHIP BETWEEN SOCIAL NETWORK USAGE PURPOSES AND NOMOPHOBIC BEHAVIOR LEVELS OF SECONDARY SCHOOL STUDENTS USING SMARTPHONE 10867
F.G. Karaoğlan Yılmaz, R. Yılmaz, H. Yildiz-Durak

BENEFITS OF TRANSFERRING PRINCIPLES OF ROMAN JURISTS TO CONTEMPORARY LAW EDUCATION 10871
E. Sütken

A PLATFORM FOR PERSONALIZED LEARNING PATHS 10872
M. Pinto

THE ROLE OF THE INTERIOR DESIGN TO PLAN A HAPPY HOME WITH A LOW BUDGET – SHEIKH ZAYED HOUSING PROGRAMME (AJMAN) 10877
G. Elsayed Ali Elsamanoudy, T. Eldanaf, O. Eltemnah, A. Azmy, D. Abdulaziz

SUGGESTIONS OF STUDENTS ON ACADEMIC TUTORIALS 10887
L. Esteban-Salvador, A. Gargallo-Castel, J. Pérez Sanz

IN SILICO LAB: AN INNOVATIVE USE OF BIOINFORMATICS TOOL FOR MOLECULAR BIOLOGY TEACHING AND LEARNING 10891
R. del Gaudio

VISUAL AND LINGUISTIC WAYS OF EXPRESSION OF THE INDIVIDUAL'S SELF-CONSCIOUSNESS IN THE PRESENT-DAY MEDIA DISCOURSE SPACE AND THEIR EFFECTS ON THE YOUNGER GENERATION 10892
A. Guslyakova, N. Guslyakova, O. Vatkova

HEART MOBILE LEARNING 10899
M. Arrigo, F. Cappello, F. Di Paola, M. Farella, G. Lo Bosco, D. Saguto, F. Sannasardo

A COMPETENCES MAP ON SUSTAINABILITY IN HIGHER EDUCATION. TRANSVERSAL ETHICAL TRAINING FOR STUDENTS 10906
J. Martín Lucas, B.M. Guitiérrez Pérez, M.J. Hernández Serrano, J.M. Muñoz Rodríguez, A. Barrón Ruiz, D. Caballero Franco, S. Serrate González, R.A. Campos Ortuño

FROM BLENDED TO FLIPPED LEARNING. AN INNOVATION MODEL OF TEACHING TRAJECTORIES IN THE UNIVERSITY 10913
J. Martín Lucas, B.M. Gutiérrez Pérez, D. Caballero Franco, S. Serrate González, R.A. Campos Ortuño, M.J. Hernández Serrano, J.M. Muñoz Rodríguez, A. Barrón Ruiz

RESEARCH METHODOLOGIES IN ARCHITECTURE PROGRAMS IN COVENANT UNIVERSITY, OTA, NIGERIA 10921
O. Babalola, E. Ibem, B. Adewale, O. Ediae, F. Jegede, W. Eke, O. Adeluoye

EDUCATING GLOBAL CITIZENS WITH THE HELP OF A MOOC 10933
A. Kameas, B. Quarta, V. Maratou

ONLINE GRADING PLATFORMS, IMPROVE QUALITY AND EFFICIENCY OF GRADING! 10943
M. Bode, J. Ross, I. Tsapara

EDUCATIONAL ROBOTICS THROUGH THE USE OF REMOTE LABORATORIES 10944
L. Renteria, C. Orozco, J. Jinez, B. Suquilanda, M. Rodriguez

WOMEN IN HIGHER EDUCATION: GENDER DIFFERENCES IN CAREER CHOICES 10951
G. Sart, H.F. Sezgin, E. Saridoğan

THE IMPLICATIONS OF HIGHER EDUCATION POLICIES AND STRATEGIES TO IMPROVE RESEARCH AND INNOVATION 10952
G. Sart, H.F. Sezgin, E. Saridogan

CROSSCULTURAL ASPECTS IN LEARNING ENGLISH FOR SPECIFIC PURPOSES 10953
N. Zhabo, M. Avdonina, I. Likhacheva

FACILITATING COLLABORATIVE PRACTICE BETWEEN PROFESSIONAL STAFF AND FACULTY TO ENHANCE THE STUDENT EXPERIENCE 10961
L. Smith

IMPLEMENTING ENLIVENED LABORATORIES WITHIN EUROPEAN SECONDARY STEM CLASSROOMS 10962
E. Mavrotheris, M. Meletiou-Mavrotheris, I.E. Lasica

ENHANCING STUDENTS' READING EXPERIENCE THROUGH TEACHER EMPOWERMENT: THE LIVING BOOK - AUGMENTING READING FOR LIFE PROJECT 10967
M. Meletiou-Mavrotheris, I.E. Lasica, C. Dimopoulos, C. Varnava Vasou

BETTER PARTNERSHIPS FOR BETTER SKILLS AND EMPLOYABILITY IN AIR TRANSPORT 10977
S.E. Zaharia, A.P. Pavel, C. Hirceag

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Bartin University (TURKEY)

Abstract

The use of technology in education gains importance day by day. In this case, the learning opportunities and student-teacher roles are changing and the learning environment is becoming rich. Within this change, it is important to reveal opinions of teachers about the use of digital concept cartoons (DCC) and digital concept maps (DCM) in mathematics course, which draw students' interest and which are more interesting teaching materials. In this context, the aim of the research is to reveal the opinions of teachers about the use of DCCs and DCMs in mathematics courses for the elimination of misconceptions seen in students. Qualitative method was used in the research. The application was performed with five different mathematics teachers in four different secondary school mathematics courses for six weeks during the spring semester of 2016-2017 academic year. As a result of the research, it was seen that teachers generally had positive opinions about the use of these tools when their opinions were examined.

Keywords: Mathematics education, Elimination of misconceptions, Digital concept cartoons, Digital concept maps, Secondary school students.

1 INTRODUCTION

Conceptual learning enables to completely understand a concept and to learn concepts by associating them with each other (Baki, 2008). Concepts in mathematics are a very basic component of teaching and learning process (Zaslavsky & Shir, 2005). Because all the concepts in mathematics are associated with each other, each new concept is another association that is established on previous one. Thus, it can be said that the role of conceptual learning in mathematics is important. The misunderstanding of concepts by students negatively affects the substantive learning of students and reduces the yield in teaching process. It is seen that students have many misconceptions especially in mathematics courses where abstract concepts are predominant (Altıparmak & Palabıyık, 2017; Dağlı, 2010; Gürel & Okur, 2016; Kaya, 2015; Kocakaya-Baysal, 2010).

Elimination of misconceptions is important for an effective mathematics teaching. Because misconceptions lead students to mislearn by negatively affecting their learning (Hewson & Hewson, 1984). For this reason, it can be said that it is necessary to use materials for the elimination of misconceptions in learning environments. These materials should enable students to actively participate in learning process and to express their ideas easily. In order to achieve this, teaching methods and materials that are different from traditional understanding and that facilitate students' learning and provide permanent and long-term learning should be used in activities used in mathematics teaching process (Cardellini, 2004). At this point, the use of concept cartoons and concept maps is one of good examples which can be given in elimination of misconceptions.

The use of technology in in-class activities gains importance day by day, bringing a new digital dimension (Kordaki & Psomos, 2014). It is especially important to reveal opinions of teachers about the use of DCCs and DCMs which are interesting teaching materials that draw students' interest, in mathematics courses. In this regard, the purpose of the research is to reveal the opinions of teachers about the use of DCCs and DCMs in mathematics courses in direction of their experiences. It is thought that this study is important in terms of setting an example for the studies conducted in this field in learning environments nowadays when technology integration is supported.

EDULEARN18 SESSION EXPLORER

SESSION OVERVIEW FOR SUNDAY, 1ST OF JULY, 2018

16:00	**Pre-Conference Workshop: Google for Education Train the Trainer (Main Hall - Third Floor)** 16:00 - 20:00
18:00	

SESSION OVERVIEW FOR MONDAY, 2ND OF JULY, 2018

	M1	M2	E1	E2	E3	E4	H1	H2	H3	Interactive	Poster Area
08:00											
08:30	**Registration (Main Hall - Third Floor)** 08:15 - 08:45										
09:00	**Welcome Speech & Plenary Session (Auditorium - Ground Floor)** 08:45 - 10:30										
09:30											
10:00											
10:30	**Coffee Break (Main Hall - Third Floor)**										

10:30 - 11:00

11:00	**Immersive Learning & Virtual Reality** 11:00 - 12:15	**Peer Learning and Teaching** 11:00 - 12:15	**21st Century Skills (1)** 11:00 - 12:15	**Students' Wellness and Wellbeing** 11:00 - 12:15	**Quality and Excellence in Teacher Training** 11:00 - 12:15	**English as a Foreign Language (1)** 11:00 - 12:15	**Mobile Learning** 11:00 - 12:15	**ICT in Education** 11:00 - 12:15	**Active Learning (1)** 11:00 - 12:15	**Meet The Keynote** 11:00 - 12:15	**Emerging Technologies in Education** 11:00 - 13:45
12:30	**Virtual Reality in Education** 12:30 - 13:45	**Flipped Learning** 12:30 - 13:45	**Workplace Learning (1)** 12:30 - 13:45	**Joint and Dual Degrees** 12:30 - 13:45	**Teacher Training Experiences** 12:30 - 13:45	**Professional Development of Foreign Language Teachers** 12:30 - 13:45	**Programming and Coding Skills (1)** 12:30 - 13:45	**Technology Enhanced Learning (1)** 12:30 - 13:45	**Active and Game-Based Learning** 12:30 - 13:45	**Peer Instruction Workshop** 12:30 - 13:45	
14:00	**Conference Lunch (Ground Floor)** 13:45 - 15:00										
15:00	**Augmented Reality in Education** 15:00 - 16:45	**Learning by Doing & Experiential Learning** 15:00 - 16:45	**Workplace Learning (2)** 15:00 - 16:45	**University-Industry Collaboration** 15:00 - 16:45	**ICT Skills among Teachers (1)** 15:00 - 16:45	**Health Education Technologies** 15:00 - 16:45	**Programming and Coding Skills (2)** 15:00 - 16:45	**Educational Games Design** 15:00 - 16:45	**Active Learning (2)** 15:00 - 16:45	**Why 'grit' is not great** 15:00 - 16:45	**Pedagogical Innovations and New Educational Trends** 15:00 - 19:00
17:00	**Coffee Break (Main Hall - Third Floor)** 16:45 - 17:15										
17:30	**Social Media and Social Networks in Education** 17:15 - 19:00	**Project, Problem and Inquiry-Based Learning** 17:15 - 19:00	**Entrepreneur-ship Education** 17:15 - 19:00	**International Collaboration Experiences** 17:15 - 19:00	**ICT Skills among Teachers (2)** 17:15 - 19:00	**Engineering Education** 17:15 - 19:00	**Learning Space Design** 17:15 - 19:00	**Digital Skills & Media Literacy** 17:15 - 19:00	**Dropout Prevention & Students' Motivation** 17:15 - 19:00	**YouTube University-Rockstar Recording Studio** 17:15 - 18:15	
18:00										**The Google Amazing**	

										Race: 360 & Virt. Reality 18:15 - 19:00	

SESSION OVERVIEW FOR TUESDAY, 3RD OF JULY, 2018

	M1	M2	E1	E2	E3	E4	H1	H2	H3	Interactive	Poster Area
08:30	**e-Learning Experiences (1)** 08:30 - 10:00	**Videos for Learning** 08:30 - 10:00	**Special Education (1)** 08:30 - 10:00	**Language Learning Education** 08:30 - 10:00	**Cultural Diversity & Inclusion (1)** 08:30 - 10:00	**Curriculum Design in Engineering** 08:30 - 10:00	**Learning Analytics (1)** 08:30 - 10:00	**Tutoring & Mentoring** 08:30 - 10:00	**Writing Skills and Performance** 08:30 - 10:00	**Managing OER-Based Curricula using the Collabrify Roadmap Platform** 08:30 - 10:00	**Experiences in Education** 08:30 - 13:45
09:00											
09:30											
10:00	**Coffee Break (Main Hall - Third Floor)** 10:00 - 10:30										
10:30	**Learning Management Systems (LMS)** 10:30 - 12:00	**Serious Games** 10:30 - 12:00	**Special Education (2)** 10:30 - 12:00	**Technology Enhanced Learning (2)** 10:30 - 12:00	**Pre-Service Teacher Education** 10:30 - 12:00	**Language Learning: from ESP to EMI** 10:30 - 12:00	**Learning Analytics (2)** 10:30 - 12:00	**e-Assessment** 10:30 - 12:00	**Quality Assurance and Accreditation in Higher Education** 10:30 - 12:00	**Social Media Playground** 10:30 - 12:00	
11:00											
11:30											
12:00											
12:30	**Personalized Learning** 12:15 - 13:45	**Blended Learning** 12:15 - 13:45	**Teacher Training in Special Education** 12:15 - 13:45	**STEM Education (1)** 12:15 - 13:45	**Professional Development of Teachers** 12:15 - 13:45	**Language Learning Technologies** 12:15 - 13:45	**Informal Learning** 12:15 - 13:45	**New technologies in Assessment** 12:15 - 13:45	**Leadership and Management in Education** 12:15 - 13:45	**Sensing Our World** 12:15 - 13:45	
13:00											
13:30	**Conference Lunch (Ground Floor)** 13:45 - 15:00										
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Massive Open Online Courses (MOOC)
15:00 - 16:45

Flipped Classroom
15:00 - 16:45

Special Needs and Inclusive Education
15:00 - 16:45

Maths and Statistics in Higher Education
15:00 - 16:45

Creativity in Education
15:00 - 16:45

English as a Foreign Language (2)
15:00 - 16:45

Gamification & Game-Based Learning
15:00 - 16:45

Assessment of Student Learning (1)
15:00 - 16:45

Management in Higher Education
15:00 - 16:45

Play to Innovate®
15:00 - 16:45

Global Issues in Education and Research
15:00 - 19:00

Coffee Break (Main Hall - Third Floor)
16:45 - 17:15

e-Learning Experiences (2)
17:15 - 19:00

Effective Teaching Practices
17:15 - 19:00

Cultural Diversity & Inclusion (2)
17:15 - 19:00

STEM Education (2)
17:15 - 19:00

Soft Skills Development
17:15 - 19:00

Business and Accounting Education
17:15 - 19:00

21st Century Skills (2)
17:15 - 19:00

Assessment of Student Learning (2)
17:15 - 19:00

Sustainability Education
17:15 - 19:00

The Playground
17:15 - 19:00

Closing Cocktail (Rooftop Palma - Third Floor)
20:30 - 22:30

SESSION OVERVIEW FOR WEDNESDAY, 4TH OF JULY, 2018

09:30

Palma Sightseeing Tour
View the brochure of this free activity
09:30 - 13:30

11:30	