



Conference Programme

14 - 15 March 2013

Grand Hotel Mediterraneo

Lungarno del Tempio, 44 – Florence - Italy



Lifelong
Learning
Programme

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Thursday 14 March

Room A 9:30 – 11:35	Room B 9:30 – 11:35
Training of Science Teachers	Science Teaching Methods

Coffee Break 11:35 - 11:45

Poster Session: 11:45 – 12:25

Room A 12:25 – 13:15	Room B 12:25 – 13:15
Training of Science Teachers	Studies on Science Education

Lunch 13:15 – 14:45

Room A 14:45 – 16:25	Room B 14:45 – 16:25
Training of Science Teachers	Studies on Science Education

Coffee Break 16:25 – 16:35

Poster Session: 16:35 – 17:05

Room A 17:05 – 18:45	Room B 17:05 – 18:45
New Technologies for Science Teaching	Studies on Science Education

Friday 15 March

Room A 9:00 – 11:05	Room B 9:00 – 11:05
Science Education Projects and Initiatives	Science Communication

Coffee Break 11:05 – 11:15

Poster Session: 11:15 – 11:55

Room A 11:55 – 12:45	Room B 11:55 – 12:45
Science Education Projects and Initiatives	Science Education and Disabled People

Lunch 12:45 – 14:15

Room A 14:15 – 15:55	Room B 14:15 – 15:55
Science Education Projects and Initiatives	Enhancing Students' Motivation

Coffee Break 15:55 – 16:05

Poster Session: 16:05 – 16:35

Room A 16:35 – 17:25	Room B 16:35 – 17:25
Science Education Projects and Initiatives	Science Education Resources and Activities



Thursday 14 March 2013

Morning Session: 9:00 – 13:15

Room A - 9:00 – 9:30

Introductory Speech, Practicalities and Ice Breaking Session

Room A 9:30 – 11:35

Training of Science Teachers

Moderator: Connie Buskist, Auburn University Montgomery (USA)

Primary Teacher Training – Improving Confidence in Scaffolding
“Tricky Science Concepts”

Karen H. Blackmore, University of Worcester (United Kingdom)

Design and Implementation of an Initial Primary Teachers
Training Course through Modeling-Based Inquiry

María Martínez-Chico, University of Almería (Spain)

Using Ancient Chinese and Greek Astronomical Data: a Training
Sequence in Elementary Astronomy for Pre-Service Primary
School Teachers

Cécile de Hosson, LDAR - Université Paris Diderot-Paris 7 (France)

Nicolas Decamp, LDAR - Université Paris Diderot-Paris 7 (France)

What Teachers Know, What They Expect Pupils Know and the
Implication on Learning: the Case of Astronomy

Cinzia Ronchi, University Roma Tre (Italy)

The Many Sides of the Moon

Tommaso Corridoni, SUPSI-DFA (Switzerland)

Room B 9:30 – 11:35

Science Teaching Methods

Moderator: Maria de Fátima Goulão, Universidade Aberta (Portugal)

Considering Density through a Numeracy Lens: Implications for
Science Teaching

Shelley Dole, The University of Queensland (Australia)

Science and Values in Academic Education

Edwin Koster, VU University Amsterdam (The Netherlands)

Teaching by Analogies

Nicolò Osterwalder, Ufficio dell’Insegnamento Medio - UIM (Switzerland)

Impact of Problem-based Learning in Learning Force and Motion
through Different Styles of Student’s Demonstrator

Prissana Rakbamrung, Suratthani Rajabhat University (Thailand)

The Effects of Problem Based Learning Method Integrated Visual
Arts on Students’ Science Academic Achievements

Sevinc Kacar, Dokuz Eylül University (Turkey)

Coffee Break 11:35 – 11:45

Poster Session: 11:45 – 12:25

Room A 12:25 – 13:15

Training of Science Teachers

Moderator: Marisa Michelini, University of Udine (Italy)

Inquiry-Based Teacher Training for a Sustainable Future

Suzanne Kapelari, University Innsbruck (Austria)

Inquire for Students - How to Promote Inquiry Based Learning?

Doris Elster, University of Bremen (Germany)

Room B 12:25 – 13:15

Studies on Science Education

Moderator: Nicholas Bourke, Auburn University Montgomery (USA)

Science Outreach and Science Education at Primary Level in Ireland:
a Mixed Methods Study

Diogo Gomes, National University of Ireland (Ireland)

Children’s Conceptions About Animals, Plants and Nonliving Things
Before and After Instruction

Caterina Lorenzi, University of Rome Tor Vergata (Italy)

Lunch 13:15 - 14:45



Thursday 14 March 2013

Afternoon Session: 14:45 – 18:45

Room A 14:45 – 16:25	Room B 14:45 – 16:25
Training of Science Teachers <i>Moderator: Luisa Panichi, University of Hull (UK)</i>	Studies on Science Education <i>Moderator: Shelley Dole, The University of Queensland (Australia)</i>
Collaborative Curriculum Design to Increase Science Teaching Self-efficacy: a Case Study <i>Chantal Velthuis, Edith Stein University for Teacher Education (The Netherlands)</i> A 'Blended' Model for Science Teachers Training <i>Serena Goracci, INDIRE (Italy)</i> Enhanced "Problem-Based Learning" through an Innovative Virtual Learning Environment: an Opportunity for Science Teachers <i>Susanna Correnti, Consorzio FOR.COM (Italy)</i> The Effects of the Using of Problem Based Learning in Science Education on Inquiry Learning Skills of Students <i>Ali Gunay Balim, Eylul University (Turkey)</i>	Using Concept Maps to Document Environmental Education Program Impact <i>Nicholas Bourke, Auburn University Montgomery (USA)</i> <i>Connie Buskist, Auburn University Montgomery (USA)</i> Climate Change and Adaptation Concepts: an Indispensable Curriculum Innovation at Higher and Basic Levels of Education in Developing Countries of Africa. <i>Ezeugwu Justin Ohabuanyi, University of Nigeria (Nigeria)</i> Innovative Approaches in Science Education Explored through a Gender Perspective in the Context of a Knowledge-based Society <i>Blerjana Bino, London School of Economics and Queen Mary (United Kingdom)</i> <i>Erjon Curraj, European University of Tirana (Albania)</i> The Nature of the Metaconceptual Processes of Students During the Implementation of Metaconceptual Teaching Activities <i>Zubeyde Demet Kirbulut, Harran University (Turkey)</i>

Coffee Break 16:25 – 16:35

Poster Session: 16:35 – 17:05

Room A 17:05 – 18:45	Room B 17:05 – 18:45
New Technologies for Science Teaching <i>Moderator: Tommaso Corridoni, University of Applied Sciences of Southern Switzerland (Switzerland)</i>	Studies on Science Education <i>Moderator: Alexander E. Sobolev, Tver State Technical University (Russia)</i>
CLAST: a Science Education App for Tablet Examining the Dynamic of an Antarctic Glacial System <i>Maddalena Macario, University of Camerino (Italy)</i> Students' Virtual Learning Styles in an Online Context <i>Maria de Fátima Goulão, Universidade Aberta (Portugal)</i> A Research Based E-Learning Process for Teacher Formation on Quantum Mechanics <i>Alberto Stefanel, University of Udine (Italy)</i> Teaching Brownfield Regeneration in Romania <i>Nicolas Samson, Technical University Gh.Asachi (Romania)</i>	Enhancing Learners' Attitudes and Interest in Organic Chemistry <i>Anne O'Dwyer, University of Limerick (Ireland)</i> Conceptions and Models of Secondary Students Learning Superconductivity <i>Marisa Michellini, University of Udine (Italy)</i> When Science Should Be Taught in English Only: Spanish Language Use in a Dual Language Classroom for Science Bilingual Development <i>Armando Garza, University of Texas at San Antonio (USA)</i>

End of the 1st Conference Day



Friday 15 March 2013

Morning Session: 9:00 – 12:45

Room A 9:00 – 11:05	Room B 9:00 – 11:05
<p>Science Education Projects and Initiatives <i>Moderator: Peter E. Childs, University of Limerick (Ireland)</i></p>	<p>Science Communication <i>Moderator: Karen H. Blackmore, University of Worcester (UK)</i></p>
<p>Developing an Assessment Approach to Complement Science Inquiry Chris Harrison, King's College London (United Kingdom)</p> <p>Mind the Gap: Bridging the Gap between Scientists, Mathematicians and Elementary School Students Carmel Bar, The Davidson Institute of Science Education (Israel)</p> <p>The Process of Becoming not Valuing Science Study during Secondary School in Japan Yasushi Ogura, Saitama University (Japan) Kenichi Goto, National Institute for Educational Policy Research (Japan)</p> <p>Inspiring Science: Supporting Contemporary Developments in Science Education through Sustainable Capacity Building Continuing Professional Development (CPD) and Comprehensive Teaching Resources Kanchulee Punyain, Ministry of Education (Thailand)</p> <p>Development of Strategies for Teaching School Science by Using Heuristic Method Geetanjali S. Patil, Shivaji University (India)</p>	<p>Reinventing the Role of Museums in Science Education Bryan Wunar, Museum of Science and Industry (USA) Nicole Kowrach, Museum of Science and Industry (USA)</p> <p>Acquiring Science Communication Skills through Conference Simulation Els Laenens, University of Antwerp (Belgium)</p> <p>Interdisciplinary Capstone Group Project: CubeSat System Development in a Small-sized Institution Haklin Kimm, East Stroudsburg University (USA)</p> <p>Virtual Excursions: a New Way to Explore Science in Class Gina Mihai, European Schoolnet (Belgium)</p> <p>The Use of Social Networks as a Tool to Increase Interest in Science and Science Literacy: a Case Study of "Creative Minds" Facebook Page Bisan Battrawi, A.M. Qattan Foundation (Palestine) Rami Muhtaseb, A.M. Qattan Foundation (Palestine)</p>

Coffee Break 11:05 – 11:15

Poster Session: 11:15 – 11:55

Room A 11:55 – 12:45	Room B 11:55 – 12:45
<p>Science Education Projects and Initiatives <i>Moderator: Yasushi Ogura, Saitama University (Japan)</i></p>	<p>Science Education and Disabled People <i>Moderator: Nicolas Samson, Technical University Gh. Asachi (Romania)</i></p>
<p>TY Science: Developing New Context-based Teaching Peter E. Childs, University of Limerick (Ireland)</p> <p>An Initiative to Make Mathematical and Physical Theory Accessible by Means of Aviation Bruno Wiesler, FH JOANNEUM (Austria)</p>	<p>"Re-Simulating": Physics Simulations for Blind Students Dilber Demirtas, Middle East Technical University (Turkey)</p> <p>Testing Context Based, Self Learning Material with a Blind Student: A Wisdom Box Belkis Garip, Middle East Technical University (Turkey)</p>

Lunch Break 12:45 – 14:15



Friday 15 March 2013

Afternoon Session: 14:15 – 17:25

Room A 14:15 – 15:55	Room B 14:15 – 15:55
<p>Science Education Projects and Initiatives <i>Moderator: Nicole Kowrach, Museum of Science and Industry (USA)</i></p> <p>The Nanolab Project: Educational Nanoscience for High Schools <i>Guido Goldoni, University of Modena and Reggio Emilia (Italy)</i></p> <p>School/University Collaboration for the Study of Nanotechnology: Russian Experience <i>Alexander E. Sobolev, Tver State Technical University (Russia)</i></p> <p>Establishing Introductory Chemistry Courses at Universities <i>Kai Wolf, Georg-August-Universität Göttingen (Germany)</i></p> <p>Bringing Affordable Experimental Chemistry to Rural Thai Government High Schools. <i>Veeramol Vailikhit, Kasetsart University (Thailand)</i></p>	<p>Enhancing Students' Motivation <i>Moderator: Bryan Wunar, Museum of Science and Industry (USA)</i></p> <p>Young Science Journalism – High School Students Compose Natural Science Articles <i>Uwe K. Simon, Karl-Franzens-University Graz (Austria)</i></p> <p>Out of Forty <i>Stanko Blatnik, IPAK Institute (Slovenia)</i></p> <p>Science Education as a Powerful Tool for Visual Learning <i>Francisco Javier Seron Torrecilla, Zaragoza University (Spain)</i></p> <p>Redressing Students' Motivation and Academic Achievement in Biology Education at the Federal College of Education (Special) <i>Martina Ivie Araoye, Federal College of Education – Special (Nigeria)</i></p>

Coffee Break 15:55 – 16:05

Poster Session: 16:05 – 16:35

Room A 16:35 – 17:25	Room B 16:35 – 17:25
<p>Science Education Projects and Initiatives <i>Moderator: Nicolò Osterwalder, Ufficio dell'Insegnamento Medio – UIM (Switzerland)</i></p> <p>EURAC Junior: Bringing Science and Research into the Classroom <i>Francesca Taponecco, European Academy of Bolzano – EURAC (Italy)</i></p> <p>EU-UNAWA: an FP 7th Project to Inspire Young Underprivileged Children <i>Lara Albanese, INAF - Osservatorio Astrofisico di Arcetri (Italy)</i> <i>Alessandra Zanazzi, INAF - Osservatorio Astrofisico di Arcetri (Italy)</i></p>	<p>Science Education Resources and Activities <i>Moderator: Carmel Bar, The Davidson Institute of Science Education (Israel)</i></p> <p>Tutoring in Middle Mexican School: a Resource to Promote Integral Education <i>Fausto Medina Esparza, Instituto de Investigación y Desarrollo Educativo (México)</i></p> <p>Teacher's Views Towards Concept Cartoons Supported Problem Based Learning <i>Suat Türkoguz, Dokuz Eylul University (Turkey)</i></p>

End of the Conference



Posters

A Plant Is Born to the Potato. Plant Model Evolution in Children <i>Luca Reggiani, University of applied sciences of Southern Switzerland (Switzerland)</i>	In-Service Teacher Training to Take Ibse Approach into Earth Science Teaching in Italian Secondary Schools <i>Barbara Scapellato, University of Camerino (Italy)</i>
BLUKONE - A Blended Learning Teaching Concept for Sustainable Energy Management Competences <i>Ilse Bartosch, University of Vienna (Austria)</i>	International Activities in Nanoscale Science and Engineering Education <i>Anna-Maria Bach, Georg-August-University Göttingen (Germany)</i>
Design of a Collection of Plasmids as a Tool for Genomic Teaching Activities <i>Antonio Domenech-Sanchez, Universitat de les Illes Balears (Spain)</i>	Nanomaterials in Everyday Life <i>Elina Schwenson, Georg-August-University (Germany)</i>
ESTABLISH - Inquiry Based Science Education Online Content <i>Angele Giuliano, AcrossLimits (Malta)</i> <i>Maryrose Francica, AcrossLimits (Malta)</i>	Nanosilver in Chemistry Class a Web Inquiry Project <i>Timm Wilke, Georg-August-University (Germany)</i>
H.E.P.P.Y. Healthcare: Parent's Pathways and Functional Profile <i>Sabrina Grigolo, Gradenigo Hospital (Italy)</i>	Photoelectric Experiment with Adobe Flash Program <i>Hatice Kirmaci, Şişli Anadolu Lisesi (Turkey)</i>
Heterogeneity among First Year Students: an Analysis of the Entry Requirements in Chemistry Studies <i>Nina Intorp, Georg-August-University Göttingen (Germany)</i>	STEP - Step towards the Popularization of Research and Technology <i>Anna Mittnerova, Institute of Chemical Technology Prague (Czech Republic)</i>
ICT, Films and Sustainability: an Experience in Teachers Training Program <i>Rosario Marcos, Universidad de León (Spain)</i> <i>Rosa Eva Valle, Universidad de León (Spain)</i>	Science in Different Learning Styles and Environments; a Science Education Project with the UNESCO Chair of Lucian Blaga University of Sibiu, Romania <i>Silvia Florea, Lucian Blaga University of Sibiu (Romania)</i>
Initial Characterization of a Colombian High School Physics Teacher' Pedagogical Content Knowledge on Electric Fields <i>Lina Viviana Melo Nino, Universidad de Extremadura (Spain)</i>	Teaching Science at School <i>Maria Maddalena Carnasciali, Department of Chemistry and Industrial Chemistry – University of Genoa (Italy)</i>
Innovative Tools for Teaching Sciences in Schools: EcoLogicaCup, a National Initiative for Students <i>Franca Sangiorgio, University of Salento (Italy)</i>	Using Fuzzy Cognitive Maps to Support Complex Environmental Issues Learning <i>José A. Resines Gordaliza, Universidad de León (Spain)</i>
How to Implement IBSE in Italian Secondary Schools <i>Maria Angela Fontechiari, University of Camerino (Italy)</i>	

Virtual Presentations

(available on the conference web site)

A Problem-Solving Approach for Science Learning <i>Rushikesh Kirtikar, Tata Institute of Social Sciences (India)</i>	Teaching the Concept of Water Using Project Method <i>Anna Thysiadou, Aristotle University of Thessaloniki (Greece)</i>
School to Work Transitions among Young People in Spain from European Perspective <i>Almudena Moreno Minguez, Universidad de Valladolid (Spain)</i>	The Importance of English for Science Teachers in the Albanian Context <i>Arben Bushgjokaj, "Luigj Gurakuqi" University of Shkodra (Albania)</i>
Relative Effectiveness of Direct Instruction vs. Active Learning in the Teaching of Science <i>Emmanuella Di Scala Fouchereau, CIMEOS-COSMOS EA 4177 University of Burgundy (France)</i>	WI.RE Technique: A Different approach to help High School students to improve their writing and reading skills and abilities in English as foreign language <i>Oscar Javier Martinez-Alaniz, Colegio Cervantes A.C (México)</i>



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