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Edited by Gregory T. Papanikos

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# TABLE OF CONTENTS

(In Alphabetical Order by Author's Family name)

<b>Preface</b>	<b>17</b>
<b>Conference Program</b>	<b>19</b>
<b>1. Music Structural Problems and Conception of Mathematical Ratio in Teaching/Learning Contexts: A Historic/Educational Approach</b> <i>Oscar Joao Abdounur</i>	<b>32</b>
<b>2. An Exploration of the Relationship between Teacher Change Belief and Teacher Attitude toward Change</b> <i>Omar Abdull Kareem &amp; Mei Kin Tai</i>	<b>33</b>
<b>3. Speed of Discrimination of Quantities in Different Styles of Decorated Pie Graphs</b> <i>Irit Aharon &amp; Billie Eilam</i>	<b>34</b>
<b>4. Islamic Religious Education to Citizenship Education in Elementary Schools in Saudi Arabia</b> <i>Badr Alharbi</i>	<b>35</b>
<b>5. Creative Writing Course in Liberal Studies: Implementation and Implications</b> <i>Asmiaty Amat, Lokman Abdul Samad, Yasmin Oiin Bh &amp; Aishah Tamby Omar</i>	<b>36</b>
<b>6. Online Distance English Language Learning: A Model for Success</b> <i>Maureen Andrade</i>	<b>37</b>
<b>7. Teaching Computer Science and Mathematics to Young Children in the Context of Image Processing: Cognitive and Affective Aspects</b> <i>Khaled Asad</i>	<b>39</b>
<b>8. Agent-Based Model for the Analysis of Teaching, Learning and Assessment Processes in the Classroom</b> <i>Hernan Astudillo, Claudio A. Faundez, Patricio G. Salgado &amp; Jose Sanchez</i>	<b>40</b>
<b>9. Predicting Mathematics Achievement: Results from England, Greece and Turkey</b> <i>Dilara Bakan Kalaycioglu</i>	<b>41</b>
<b>10. Restructuring Teacher Education in the United States: Finding the Tipping Point</b> <i>Barbara Bales</i>	<b>42</b>
<b>11. The Incorporation of Local Knowledge for Teaching and Learning Sciences in Primary Schools</b> <i>Martin Bascope &amp; Natalia Canihuan</i>	<b>43</b>
<b>12. The Influence of Student Gender on the Assessment of Undergraduate Student Work</b> <i>Joanne Batey, Phil Birch &amp; John Batten</i>	<b>45</b>
<b>13. The Influence of Lecturer Reputation on the Behavioural Responses of Students</b> <i>John Batten &amp; Joanne Batey</i>	<b>46</b>

14.	<b>The Competent Child: Alternatives in Preschool Education</b> <i>Marcela Batistic Zorec</i>	47
15.	<b>An Approach for the Identification of Misalignment in ERP Implementation</b> <i>Rachid Benmoussa</i>	49
16.	<b>Application of Methods of Organization of Cellular Automata to Implement Devices of Forming Pseudorandom Sequences</b> <i>Stepan Bilan, Mykola Bilan &amp; Sergii Bilan</i>	50
17.	<b>Game of Tweets - Leveraging Social Media to Gamify Out-of-Class Activities</b> <i>Perry Binder</i>	52
18.	<b>The Competency-Based Approach in a Traditional Educational Context</b> <i>Said Boumghar</i>	53
19.	<b>Public Policies for Access to Higher Education in Brazil: Majors in Natural Sciences and Mathematics in Rural Education Undergraduate Courses</b> <i>Daniel Fernando Bovolenta Ovigli, Ariane Baffa Lourenco &amp; Pedro Donizete Colombo Junior</i>	54
20.	<b>Nonverbal Communication and its Importance for the Development of Foreign Language Professional Competence in Medical and Dentistry Students</b> <i>Maria Bujalkova &amp; Petra Zrnikova</i>	56
21.	<b>The Technical Object as a Cognition / Subjectivity Tool</b> <i>Nize Maria Campos Pellanda</i>	57
22.	<b>Earth System Science as a Critical Knowledge for Educating Geographers and other Professionals to Interact with Earth</b> <i>Celso Dal Re Carneiro, Jose Roberto Serra Martins, Pedro Wagner Goncalves &amp; Allan Eduardo Cano</i>	58
23.	<b>Brain Drain, Mobility and Emigration of High Skilled Professionals from Portugal to Europe</b> <i>Luisa Cerdeira, Maria de Lourdes Machado-Taylor, Rui Gomes, Joao Teixeira Lopes, Henrique Vaz, Rui Brites, Belmiro Cabrito, Rafaela Ganga, Dulce Magalhaes, Tomas Patrocínio, Paulo Peixoto &amp; Sílvia Silva</i>	59
24.	<b>Thinking about MOOCs</b> <i>Gang Chen &amp; Ruimin Shen</i>	62
25.	<b>PASS with the 4 C's: Connect, Communicate, Collaborate &amp; Cooperate</b> <i>Carol Ciotto, Marybeth Fede &amp; Ellen Benham</i>	63
26.	<b>Out-of-Field Education: The Phenomenon as Encountered in Rural Schools in South Africa</b> <i>Laura Coetzer</i>	64
27.	<b>Tracing Forensic Artifacts from USB-Bound Computing Environments on Windows Hosts</b> <i>Jan Collie</i>	66
28.	<b>Mobile Learning - Continued Success or Emerging Problems?</b> <i>Abide Coskun Setirek &amp; Zuhul Tanrikulu</i>	67

29.	<b>Is It Possible to Meet Students' Expectations in Delivering Curricula?</b> <i>Elwyn Cox</i>	68
30.	<b>Legal Education at a Cross Roads. The Australian Experience</b> <i>Pauline Collins</i>	69
31.	<b>The School-Museum Partnership in Brazil: What does Research Says?</b> <i>Pedro Donizete Colombo Junior, Daniel Fernando Bovolenta Ovigli &amp; Ariane Baffa Lourenco</i>	70
32.	<b>EFL Curriculum Design Based on Peirce Sign Theory to Foster Lexical Competence and Linguistic Performance in Young English Learners</b> <i>German Correa Rios, Luisa Alfaro Lopez &amp; Jonathan Orduna Mejia</i>	72
33.	<b>The Socialisation of Emotions in Daycare Centres: The Early Childhood Educators' Perspective</b> <i>Sylvain Coutu, Camille Coutu, Diane Dubeau, Annie Berube &amp; Christelle Robert</i>	73
34.	<b>The Values Dimension of Quality Teachers: Can we Prepare Pre-service Teachers for this?</b> <i>Elizabeth Curtis</i>	75
35.	<b>Art and Science: Articulating a Contemporary Dialogue using the Perspective of the Renaissance (Relation Galileo-Cigoli Rediscovered)</b> <i>Marcos Cesar Danhoni Neves &amp; Josie Agatha Parrilha da Silva</i>	76
36.	<b>Motor Skills and Language to Help Autistic Children</b> <i>Maria Rosaria D'Acierno</i>	77
37.	<b>Collaborative Learning Network to Develop Transversal Competences in Graduate Studies</b> <i>Omar De la Cruz, Lourdes De Miguel Barcala, Lopez Carrillo Maria Dolores, Andrade Olalla Antonia, Cano Martil Samuel, Franco Rodriguez Jose Ramon, Tello Inmaculada, Calonge Amelia &amp; Emilio Jose Lopez</i>	79
38.	<b>Widget Based Learning in Math and Physics Undergraduate Courses as Blended Learning Approach</b> <i>Francisco Javier Delgado Cepeda, Ruben Dario Santiago-Acosta &amp; Lourdes Quezada-Batalla</i>	81
39.	<b>The Centrality of Positive Emotions in the Field of Mathematics</b> <i>Ziva Deutsch &amp; Hava Greensfeld</i>	83
40.	<b>The Pursuit of Aesthetic Education and Social Interaction in Visually Impaired Students Based on Practice in Woodcut</b> <i>Adriano De Almeida Ferraiuoli</i>	84
41.	<b>Using a Biometric Fingerprint Device to Record and Encourage Class Attendance and Active Student Participation</b> <i>Thelma De Jager</i>	86
42.	<b>South African Migrant Teachers and the Reshaping of Knowledge Flows Globally</b> <i>Rian De Villiers</i>	87
43.	<b>Cruising Routes on Arts Teaching in Portugal and in Brazil</b> <i>Maria Cristina dos Santos Peixoto &amp; Sara Bahia</i>	88

44.	<b>Generalized Lead-Acid based Battery Model Used for a Battery Management System</b> <i>Philip Dost &amp; Constantinos Sourkounis</i>	89
45.	<b>Autism and ABA: Best Practice in America and the Way Forward for Europe</b> <i>Katerina Dounavi, Karola Dillenburger &amp; Mickey Keenan</i>	90
46.	<b>The Development of Education-Centred Pedagogies: Trends in Two Mainstream Classes towards a More or Less Equitable and Inclusive Environment for Students with SEND</b> <i>Efthymia Efthymiou</i>	91
47.	<b>Textbook Visual Representations: The Case of High-School Ecology</b> <i>Billie Eilam, Ilana Sinai &amp; Seena Yasin Amar</i>	92
48.	<b>The Information Seeking Behaviour of Academic Discourse Skills (ALS) Students and Effect on Student Research Papers</b> <i>Mary Ellis &amp; Anitha Devi Pillai</i>	94
49.	<b>Profile of the Alumni of University of São Paulo – 2012</b> <i>Silvio Fernandes de Paula, Gisele Lopes Batista Pinto, Helio Nogueira da Cruz, Jose de Oliveira Siqueira, Emma Otta &amp; Elizabeth Balbachevsky</i>	96
50.	<b>Project on Educative Innovation by University of Valladolid: Didactics of Language and Literature, Area for Developing Creativity and Intercultural Competences of the Education Professionals</b> <i>Mari Carmen Fernandez Tijero</i>	98
51.	<b>Facilitative Training of Community Careworkers who Support Young Children Affected by Maternal HIV/AIDS</b> <i>Michelle Finestone</i>	99
52.	<b>The Promise of Pre-Service Teachers in Albania</b> <i>Jeannette Ford &amp; Gerda Sula</i>	100
53.	<b>Towards Measuring the Impact of Management Support Systems on Contemporary Management</b> <i>Elvis Foster</i>	101
54.	<b>Tips for Effective Intercultural Collaboration on the Evaluation of an International Program</b> <i>Karen Freeman &amp; Athanase Gahungu</i>	102
55.	<b>Universal Design for Learning: The Possibilities to Address Diversity Attending the Different Ways of Learning and Forms to Demonstrate what has been Learned</b> <i>Maria Dolores Garcia Campos, Cristina Canabal Garcia, Guillermina Gavaldon Hernandez &amp; Carmen Lopez- Escribano</i>	103
56.	<b>Human Rights and Shared Responsibility in Development Aid: The Nordic Model in Tanzania</b> <i>MacLeans Geo-JaJa</i>	104
57.	<b>Lessons from Socrates: The Depth of his Teaching Goes Far Beyond the Socratic Method</b> <i>Lynda George</i>	105
58.	<b>Promotion of Chinese Traditional Culture to Enhance the Humanistic Aptitude of Undergraduates</b> <i>Qi Gong &amp; Mi Fang</i>	106

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59.	<b>The e-Activities to Support the Process of Teaching and Learning in Online Context</b> <i>Maria de Fatima Goulao</i>	107
60.	<b>The Contribution of Cultural Competency to Improving Ethically based Indigenous Research</b> <i>Graeme Gower</i>	108
61.	<b>Students Facing Examples</b> <i>Hava Greensfeld &amp; Efrat Nevo</i>	109
62.	<b>Information Characteristics of Physical Systems</b> <i>Igor Gurevich</i>	110
63.	<b>The Case for a Functional Internet of Things</b> <i>Till Haenisch</i>	111
64.	<b>Constructing Inclusive Communities in the Greek Context</b> <i>Lorna Hamilton, Dimitra Tsakalou &amp; Jane Brown</i>	112
65.	<b>Teacher Survey on Reading Competence and Reading Competence Promotion in Turkish Primary Schools</b> <i>Orhan Hanbay &amp; Yakup Tekin</i>	113
66.	<b>Relationships between Student Expectations, Demographic Characteristics, and Academic Background of Students in the Online Environment</b> <i>Sandra Harris &amp; Rebecca Jacobson</i>	114
67.	<b>A Critical Overview of the Place of Theory in the Discipline of Philosophy of Education</b> <i>Leonie Gysbeertha Higgs</i>	116
68.	<b>Can Education be Democratic?</b> <i>Philip Higgs</i>	117
69.	<b>Robotics Curriculum for Integrated STEM Instruction</b> <i>Roger Hill</i>	118
70.	<b>Experimental Research on Different Cultural Background of Composition with Pictures Description in Chinese Learning as a Second Language</b> <i>Sun Yu Hon</i>	119
71.	<b>Evaluation on Solo Performance Module for Language Teaching &amp; Learning</b> <i>Fazilah Husin</i>	120
72.	<b>Students and Teachers' Perceptions on the Most Valued Teaching Practices</b> <i>Carlos Iberico &amp; Julio Del Valle</i>	121
73.	<b>A Model for Teaching Mathematics through Robotics Activities in Elementary School</b> <i>Vessela Ilieva</i>	122
74.	<b>Secondary School Students' Reading Anxiety in a Second Language</b> <i>Sadiq Ismail</i>	124
75.	<b>Service Oriented, Event Driven, Smart Cyber - Agent (SES) Approach for Real Time Management of Global Manufacturing Enterprises</b> <i>Hemant Jain</i>	126

76.	<b>A Study of Gamification as an Instructional Strategy to Develop Pre-service Teachers' Knowledge of Technology-enhanced Teaching</b> <i>Kamini Jaipal-Jamani &amp; Candace Figg</i>	127
77.	<b>Investigation of Preservice Teachers' Beliefs about Learning and Teaching of Mathematics: The Case of Jordanian Universities</b> <i>Adeeb Jarrah</i>	129
78.	<b>Alternative Learning and Research Leading to Development</b> <i>Jaime Jimenez, Alejandro Barragan, Monica Velasco &amp; Ramon Marin</i>	130
79.	<b>Social Issues of Fareast &amp; Southeast Asia Region with Special Focus on Pakistan</b> <i>Hamadullah Kakepoto</i>	131
80.	<b>The Impact of Post-Graduate Education on Teachers' Understanding of Inclusion and Special Education</b> <i>Leda Kamenopoulou, Jorun Buli-Holmberg &amp; Jan Siska</i>	132
81.	<b>Gender and Literature Didactics. How Does the Choice of Texts Affect Reading Competence?</b> <i>Judita Kanjo</i>	133
82.	<b>The Language of Obama: A Rhetorical Analysis. An Examination of the Emotive Rhetorical Devices Appearing in Barack Obama's 2008 Campaign Speeches Leading up to his Inauguration</b> <i>Orly Kayam</i>	134
83.	<b>Nip &amp; Tuck: The Humanities and Social Sciences under the Knife</b> <i>Carolyn King</i>	135
84.	<b>Central Role of Intercultural Competence to the Concept of Internationalization in Tertiary Education</b> <i>Andrea Koblizkova</i>	136
85.	<b>Creative Drama: Between the Process and the Project</b> <i>Helena Korosec</i>	138
86.	<b>Factors that Influence the Acquisition of the Czech Language Skills by Children of Foreigners at Czech Elementary Schools</b> <i>Yvona Kostelecka &amp; Tomas Kostelecky</i>	139
87.	<b>Track and Sector in Egyptian Higher Education: Who Studies Where and Why?</b> <i>Ray Langsten &amp; Fatma Said Mahrous</i>	140
88.	<b>Constructing Professional Identity through Metaphors: What Student- Teachers' Have to Say about their Profession</b> <i>Sandra Patricia Lastra Ramirez</i>	142
89.	<b>E-Tutorials as an Addition to Higher Education Learning Scenarios</b> <i>Carsten Lecon</i>	143
90.	<b>Inclusion: The Perspective of Israeli Pupils with Learning Difficulties</b> <i>Judy Leichtentritt</i>	144
91.	<b>Understanding Adolescents' Attitudes toward Gambling with the New Theory of Reasoned Action (TRA) Measure in Macau</b> <i>Chi Hung Leung</i>	146

92.	<b>The Impact of Formative Instructional Practice Professional Development on Instructional Change</b> <i>Xin Liang &amp; Linda Collins</i>	147
93.	<b>The Price of “Pursuing for Excellence”: Academic Workers in the Restructured Higher Education in Taiwan</b> <i>Yu-Hsuan Lin</i>	148
94.	<b>Dichotomous Keys and Collections in Elementary Education</b> <i>Maria Dolores Lopez Carrillo &amp; Omar de la Cruz Vicente</i>	149
95.	<b>Supporting All Learners through “Universal Design for Learning”: How to Motivate and Engage Students in Learning</b> <i>Carmen Lopez-Escribano, Montserrat Blanco-Garcia &amp; Canabal Garcia Cristina</i>	150
96.	<b>The Influence of Shadow Education on China’s Basic Education Policy</b> <i>Shizhou Lou &amp; Ling Xiao</i>	152
97.	<b>The Impact of Appropriate Learning and Teaching Support Material on the Perceptual-Motor Development Skills of Kindergarten Learners</b> <i>Annemarie Loubser</i>	153
98.	<b>Activities with Pre-Services Teachers in Chemistry Promoting Argumentative Classes</b> <i>Ariane Baffa Lourenco, Jerino Queiroz Ferreira &amp; Salette Linhares Queiroz</i>	154
99.	<b>Education and Enlightenment of Jewish Population in Slovakia until 1945 – On Example of Microhistory of Town of Presov</b> <i>Eduard Lukac</i>	156
100.	<b>Integration and Segregation in the Education of Roma Minority</b> <i>Marek Lukac</i>	158
101.	<b>Comparison of the Academics Role in Accreditation Methods of Higher Education Institutions in Portugal (Europe) and the US</b> <i>Maria de Lourdes Machado-Taylor &amp; Dennis Gregory</i>	159
102.	<b>Building a Psycho-Education Guide for Parents of Children with Autism Spectrum Disorders</b> <i>Simona Marica, Laura Goran &amp; Simona Trifu</i>	162
103.	<b>Challenges in Teaching Latin and French Loan Words in the Language of Diplomatic Protocol</b> <i>Armenuhi Martirosyan &amp; Marine Mkrtchyan</i>	163
104.	<b>Challenging Analogical Enconding under Real Educational Conditions</b> <i>Christian Mayer &amp; Oliver Gansser</i>	164
105.	<b>Classification of Blended Classes Using Change of Attitude Related to Ability</b> <i>Isao Miyaji</i>	165
106.	<b>Education for Sustainable Development – Qualitative Case Studey in Early Childhood Education</b> <i>Cathy Mogharreban</i>	168
107.	<b>Selection and Ranking of Learning Variables for Creation of Learning Objects</b> <i>Namdar Mogharreban</i>	170

<b>108.</b>	<b>Literary Therapeutics</b> <i>Juan Eliseo Montoya Marin</i>	<b>171</b>
<b>109.</b>	<b>Situated Learning in a School-University Partnership Project: Integrating Pre-Service Teacher Education in School-Based Educational Change</b> <i>Brett Moore</i>	<b>172</b>
<b>110.</b>	<b>Exploring High School Students' Cultural Consumption and Digital Practices</b> <i>Sandra Musanti &amp; Monica Eva Pini</i>	<b>174</b>
<b>111.</b>	<b>Educational Leadership and Teacher Training, Anytime Anywhere</b> <i>Ronald Musoleno</i>	<b>176</b>
<b>112.</b>	<b>The Influence of Artificial Intelligence on Consumer Protection in Dept Collection Proceedings at e-Court, the First Private Online Court of The Netherlands</b> <i>Henriette Nakad-Weststrate, Ton Jongbloed, Jaap Van den Herik &amp; Abdel-Badeeh M. Salem</i>	<b>177</b>
<b>113.</b>	<b>Liberal Education as a Key for World Citizenship</b> <i>Valbona Nathanaili</i>	<b>178</b>
<b>114.</b>	<b>Reflecting on Simplex Properties and Principles to Face the Complexity of Inclusive Classrooms</b> <i>Erika Marie Pace &amp; Paola Aiello</i>	<b>179</b>
<b>115.</b>	<b>Problematic Relationships of Philosophy and Education in Brazil: Implications on Teacher's Training Courses</b> <i>Leoni Maria Padilha Henning</i>	<b>180</b>
<b>116.</b>	<b>Physical Practice and Environmental Education: Production of Didatic Material for the Teaching of Slakline</b> <i>Marcelo Paraiso Alves, Cassio Martins, Gustavo Alves Vinand Kozlowski, Maria de Fatima Alves de Oliveira, Maria Vinciprova Fonseca, Carlos Sanches, Rosane Moreira Silva de Meirelles &amp; Ronaldo Figueiro</i>	<b>182</b>
<b>117.</b>	<b>Inquiry-Guided Learning Pedagogies: A New Approach to Achieve Collaborative Teaching and Learning</b> <i>Adelia Parrado-Ortiz</i>	<b>184</b>
<b>118.</b>	<b>Professional Preferences of High School Students at Schools of the Environment of the City of Guadix (Granada-Spain)</b> <i>Eufrazio Perez- Navio, Maria Luisa Zagalaz-Sanchez, Ana Maria Ortiz-Colon &amp; Javier Cachon-Zagalaz</i>	<b>185</b>
<b>119.</b>	<b>Analysis of the Performance of Public Schools in Brazil: The Case of Public Policy Rural Education</b> <i>Claudia Souza Passador &amp; Joao Luiz Passador</i>	<b>186</b>
<b>120.</b>	<b>Interdisciplinarity in Higher Education: A Layered Analysis of Pitfalls, Potential and Promise</b> <i>Richard Peters</i>	<b>187</b>
<b>121.</b>	<b>Exploring the Essence of Software Engineering in Academic Education - An Integrated Game-Based Approach</b> <i>Joeran Pieper</i>	<b>189</b>

122.	<b>Preschools and Schools Responding to Vulnerable Families with Children</b> <i>Olga Poljsak Skraban, Spela Razpotnik, Nada Turnsek, Jana Rapus Pavel</i>	190
123.	<b>Collaboration of Parents and Educators in Cases of Children Placed in Residential Care Homes – Parental Perspective</b> <i>Jana Rapus Pavel</i>	191
124.	<b>The Education and Healthcare Transition (EDHCT): Supporting Systems Change for Young Adults with Invisible Chronic Illness (ICI)</b> <i>Jeanne Repetto, Susan Horky, Arwa Saidi, Angela Miney &amp; Jenna Gonzelaz</i>	193
125.	<b>The Understanding of Contemporary Vocal Pedagogy and the Teaching Methods of Internationally Acclaimed Vocal Coaches</b> <i>Trish Rooney</i>	195
126.	<b>Reflection in Online Learning: A Systematic Literature Review</b> <i>Ellen Rose</i>	196
127.	<b>Games &amp; Gamification as a Strategy to Enhance Critical Thinking</b> <i>Nancy Sardone, &amp; Roberta Devlin-Scherer</i>	197
128.	<b>Why Do They Think They Cannot Succeed?</b> <i>Hulya Saygili</i>	198
129.	<b>Gamification in Hybrid and Multimodal Coexistence Spaces: Design and Cognition in Discuss</b> <i>Eliane Schlemmer</i>	199
130.	<b>Research Roadmaps: A Practical Model for Embedding Critical Thinking, Research Skills and their Assessment across the Undergraduate Curriculum</b> <i>Davida Scharf</i>	200
131.	<b>More Education Program: Dealing with Inequalities within Brazil's Educational System</b> <i>Alice Shama &amp; Cibele Rodrigues</i>	201
132.	<b>Rural Education and Rural Extension: Paulo Freire Contributions to the Agrarian Residence Program</b> <i>Lourdes Helena Silva &amp; Elida Miranda</i>	203
133.	<b>Electronic Games and its Contribution to Educational Practice: A Study from the State Public School System by the Perception of Educators</b> <i>Carla Silvanira Bohn, Joao Bosco da Mota Alves &amp; Gertrudes Aparecida Dandolini</i>	204
134.	<b>Skill Level Differences Between the Employed and Unemployed in High-Skilled Countries</b> <i>Heikki Silvennoinen &amp; Matti Lindberg</i>	205
135.	<b>Identity Construction at Brazilian Public Universities in the Context of Recent Struggles and Policies</b> <i>Vera Helena Ferraz de Siqueira, Gloria Walkyria Arrigoni, Daine Agostini &amp; Lucas de Almeida Brito</i>	207
136.	<b>Using Participatory Visual Strategies to Orient Grade 12 Learners to Make Constructive Career Choices</b> <i>Suegnet Smit</i>	208

137.	<b>Battery Management System Tasks in an Electric Vehicle</b> <i>Constantinos Sourkounis &amp; Philip Dost</i>	209
138.	<b>Authentic Assessment for Learning in a Capstone Experience for Teacher Education</b> <i>Rebecca Spooner-Lane</i>	210
139.	<b>European Projects Impact on Science Teaching in Romania</b> <i>Adelina Sporea &amp; Dan Sporea</i>	211
140.	<b>Designing Effective Professional Development Programs for Teachers: Principles Developed from Research and Experience on Three Continents</b> <i>Elizabeth Sturtevant</i>	213
141.	<b>Exploring Teacher Candidates' Views on Education Reforms</b> <i>Pervin Oya Taneri &amp; Nalan Akduman</i>	214
142.	<b>Self-Regulated Learning and the Role of ePortfolios in Business Studies</b> <i>Valentina Tarkovska, Lucia Morales &amp; Amparo Soler-Dominguez</i>	216
143.	<b>The Future of Digital Scholarship</b> <i>Costantino Thanos</i>	217
144.	<b>Development of a Questionnaire to Measure Risk-Taking in Decision-Making by School Principals</b> <i>Karen Trimmer</i>	218
145.	<b>Computer Adaptive Tests: An Indicator for Academic Achievement?</b> <i>George Tsakirakis</i>	219
146.	<b>Practical Guide to Effective Leadership for School Managers</b> <i>Christina Tsiolakki</i>	220
147.	<b>Between the Right to Choose and Children's Participation in Slovenian Kindergartens</b> <i>Nada Turnsek</i>	221
148.	<b>Education to Vocation: Considerations for Curriculum, Outcomes and Practices Leading to Greater Employability for Undergraduate Students</b> <i>Julia Underwood &amp; Roxanne Helm-Stevens</i>	222
149.	<b>The Collaborative Experience (PLC) with Tablets: Moving Forward in a Language Classroom</b> <i>June Srichinda, Kate Price &amp; Iria Vazquez Marino</i>	225
150.	<b>Towards the Value of Labor within the Context of Teaching Business Ethics in Higher Education</b> <i>Daphne Vidanec</i>	227
151.	<b>Reading, Literature, Education: Possible Encounters in the English as a Foreign Language Class</b> <i>Maria Vinciprova Fonseca, Adilson Pereira, Marcelo Paraiso Alves &amp; Maria de Fatima Alves de Oliveira</i>	228
152.	<b>Talk about Chemistry: A Voluntary and Effective Integration among the Players of Teaching Chemistry</b> <i>Adriana Vitorino Rossi</i>	230
153.	<b>How Do I Categorize My World? Teachers' and Students' Reminiscences from Inclusive Classes</b> <i>Zaira Wahab</i>	231

154.	<b>Preservice Teachers' Cross-Cultural Competence in Teaching about Immigrants and Refugees</b> <i>Doris Walker-Dalhousé &amp; A. Derick Dalhousé</i>	232
155.	<b>Consciously Cognizing and Unconsciously Sharing: Undergraduates Process Fake Health Information in the Microblog</b> <i>MengMeng Wu &amp; Shiwen Wu</i>	233
156.	<b>We're on the Road to Where?: Teaching Ethics in the Age of Digital Communication</b> <i>Berrin Yanikkaya</i>	234
157.	<b>An Ideal Postgraduate Program from the Perspective of Postgraduate Music Students</b> <i>Sebnem Yildirim Orhan &amp; Elif Taninmis</i>	235
158.	<b>US Consumer Attitudes and Perceptions about mHealth Privacy and Security</b> <i>Christina Zarcadoolas</i>	236
159.	<b>Can Education Resolve Nursing Shortage in China?</b> <i>Junhong Zhu &amp; Sheila Rodgers</i>	237
160.	<b>Possible Didactic Applications of Creative Thinking Theories within a Simplex Didactics Perspective</b> <i>Iolanda Zollo &amp; Maurizio Sibilio</i>	238
161.	<b>Teacher's Emotional Intelligence, Emotional Experiences and Professional Development</b> <i>Leehu Zysberg &amp; Ditzá Maskit</i>	239



## Preface

This abstract book includes all the abstracts of the papers presented at the 17<sup>th</sup> Annual International Conference on Education, 18-21 May 2015, organized by the Athens Institute for Education and Research. In total there were 161 papers and 179 presenters, coming from 40 different countries (Algeria, Armenia, Australia, Brazil, Canada, Chile, China, Colombia, Croatia, Cyprus, Czech Republic, Egypt, Finland, France, Germany, Hong Kong, Ireland, Israel, Italy, Japan, Malaysia, Mexico, Morocco, Pakistan, Peru, Portugal, Romania, Russia, Singapore, Slovakia, Slovenia, South Africa, Spain, Taiwan, The Netherlands, Turkey, UAE, UK, Ukraine and USA). The conference was organized into 38 sessions that included areas such as Higher Education, Education and IT, Online and Distance Education, Pre-School Elementary Education, Educational Psychology, Language Learning, Educational Administration, Secondary Education and other related fields. As it is the publication policy of the Institute, the papers presented in this conference will be considered for publication in one of the books of ATINER.

The Institute was established in 1995 as an independent academic organization with the mission to become a forum where academics and researchers from all over the world could meet in Athens and exchange ideas on their research and consider the future developments of their fields of study. Our mission is to make ATHENS a place where academics and researchers from all over the world meet to discuss the developments of their discipline and present their work. To serve this purpose, conferences are organized along the lines of well established and well defined scientific disciplines. In addition, interdisciplinary conferences are also organized because they serve the mission statement of the Institute. Since 1995, ATINER has organized more than 150 international conferences and has published over 100 books. Academically, the Institute is organized into four research divisions and nineteen research units. Each research unit organizes at least one annual conference and undertakes various small and large research projects.

I would like to thank all the participants, the members of the organizing and academic committee and most importantly the administration staff of ATINER for putting this conference together.

**Gregory T. Papanikos**  
**President**

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**FINAL CONFERENCE PROGRAM**  
**17<sup>th</sup> Annual International Conference on Education, 18-21 May 2015,**  
**Athens, Greece**

**PROGRAM**

**Conference Venue: Titania Hotel, 52 Panepistimiou Avenue, Athens, Greece**

**Organization and Scientific Committee**

1. Dr. Gregory T. Papanikos, President, ATINER & Honorary Professor, University of Stirling, UK.
2. Dr. George Poulos, Vice-President of Research, ATINER & Emeritus Professor, University of South Africa, South Africa.
3. Dr. Alexander Makedon, Head, Education Research Unit, ATINER & Professor of Philosophy of Education, Arellano University, Philippines.
4. Ms. Olga Gkounta, Researcher, ATINER.
5. Mr. Leslie Stuart Woodcock, Academic Member, ATINER and University of Leeds, U.K.
6. Dr. Macleans A. Geo-JaJa, Professor of Economics and Education, David O. McKay School of Education, Brigham Young University, USA.
7. Dr. Jenny Lane, Academic Member, ATINER & Co-Director, Centre for Higher Education Learning and Teaching Research, Edith Cowan University, Australia.
8. Dr. William Patrick Leonard, Executive Vice Dean, University of Pittsburgh, USA.
9. Dr. Hilda Patiño Domínguez, Tenure Professor, Universidad Iberoamericana, Mexico.
10. Dr. Yaacov Julian Katz, Lecturer and Researcher in Social Psychology of Education, Bar-Ilan University, Israel.
11. Dr. Elsa Fourie, Professor & Director, North-West University, South Africa.
12. Dr. Roger B. Hill, Professor, University of Georgia, USA.
13. Dr. Ariel T. Gutierrez, Academic Member, ATINER & Chair, Social Sciences Dept. and Music, Arts, Physical Education & Health Education Dept., Angeles University Foundation-Integrated School, Philippines.
14. Dr. Maria de Fatima Goulao, Assistant Professor, Aberta University, Portugal.
15. Dr. Sara Bahia, Auxiliary Professor, University of Lisbon, Portugal.

**Administration**

Stavroula Kyritsi, Konstantinos Manolidis, Katerina Maraki & Kostas Spiropoulos

## Monday 18 May 2015

(all sessions include 10 minutes break)

07:30-08:30 Registration and Refreshments

08:30-09:00 (ROOM C) Welcome & Opening Remarks

- Dr. Gregory T. Papanikos, President, ATINER.
- Dr. George Poulos, Vice-President of Research, ATINER & Emeritus Professor, University of South Africa, South Africa.
- Dr. Alexander Makedon, Head, [Education Research Unit](#), ATINER & Professor of Philosophy of Education, Arellano University, Philippines.

09:00-11:00 Session I (ROOM A): Educational Foundations I	09:00-11:00 Session II (ROOM B): Pre-School Elementary Education I	09:00-11:00 Session III (ROOM C): Higher Education I	09:00-11:00 Session IV (ROOM D): Education and IT*
Chair: Alexander Makedon, Head, <a href="#">Education Research Unit</a> , ATINER & Professor of Philosophy of Education, Arellano University, Philippines.	Chair: Leslie Stuart Woodcock, Academic Member, ATINER and University of Leeds, U.K.	Chair: Mary Ellis, Senior Lecturer, National Institute of Education, Singapore.	Chair: George Poulos, Vice-President of Research, ATINER & Emeritus Professor, University of South Africa, South Africa.
1. *Shizhou Lou, Professor, Doctoral Supervisor and Vice-President, Zhejiang Normal University, China & Ling Xiao, Graduate Student, Zhejiang Normal University, China. The Influence of Shadow Education on China's Basic Education Policy.	1. Martin Bascope, Professor, Pontificia Universidad Catolica de Chile, Chile & Natalia Canihuan, Researcher, Independent Anthropologist, Chile. The Incorporation of Local Knowledge for Teaching and Learning Sciences in Primary Schools.	1. *Julia Underwood, Professor, Azusa Pacific University, USA & Roxanne Helm-Stevens, Associate Professor, Azusa Pacific University, USA. Education to Vocation: Considerations for Curriculum, Outcomes and Practices Leading to Greater Employability for Undergraduate Students.	1. Carsten Lecon, Professor, Aalen University, Germany. E-Tutorials as an Addition to Higher Education Learning Scenarios.
2. Carol Ciotto, Associate Professor, Central Connecticut State University, USA, Marybeth Fede, Associate Professor, Southern Connecticut State University, USA & Ellen Benham, Coordinator of School and Community Partners, Central Connecticut State University, USA. PASS with the 4 C's: Connect, Communicate, Collaborate & Cooperate.	2. Cathy Mogharreban, Associate Dean, The College of Education and Human Services, Southern Illinois University, USA. Education for Sustainable Development – Qualitative Case Study in Early Childhood Education.	2. Trish Rooney, Director and Principal, The Academy of Popular Music, Ireland. The Understanding of Contemporary Vocal Pedagogy and the Teaching Methods of Internationally Acclaimed Vocal Coaches.	2. Namdar Mogharreban, Associate Professor, Southern Illinois University, USA. Selection and Ranking of Learning Variables for Creation of Learning Objects.
3. Karen Freeman, Assistant Professor, Chicago State University, USA & Athanase Gahungu, Professor, Chicago State University, USA. Tips for Effective Intercultural Collaboration on the Evaluation of an International Program.	3. Nada Turnsek, Assistant Professor, University of Ljubljana, Slovenia. Between the Right to Choose and Children's Participation in Slovenian Kindergartens.	3. Richard Peters, Assistant Professor, Xavier University of Louisiana, USA. Interdisciplinarity in Higher Education: A Layered Analysis of Pitfalls, Potential and Promise.	3. Joeran Pieper, Research Fellow, Ph.D. Student, IACS / FB ETI, University of Applied Sciences Stralsund, Germany. Exploring the Essence of Software Engineering in Academic Education – An Integrated Game-Based Approach.
4. Yu-Hsuan Lin, Assistant Professor, Nanhua University, Taiwan. The Price of "Pursuing for Excellence": Academic Workers in the Restructured Higher Education in Taiwan.	4. Michelle Finestone, Lecturer and Project Coordinator, University of Pretoria, South Africa. Facilitative Training of Community Careworkers who Support Young	4. Joanne Batey, Senior Lecturer, The University of Winchester, U.K., Phil Birch, Associate Lecturer, University of Chichester, U.K. & John Batten, Senior Lecturer, The University of Winchester, U.K. The Influence of Student Gender on the Assessment of Undergraduate Student Work.	4. Roger Hill, Professor, University of Georgia, USA. Robotics Curriculum for Integrated STEM Instruction.

<p>5. Graeme Gower, Senior Lecturer, Edith Cowan University, Australia. The Contribution of Cultural Competency to Improving Ethically based Indigenous Research.</p> <p>6. Dilara Bakan Kalaycioglu, Director, Test Preparation Department, OSYM, Turkey. Predicting Mathematics Achievement: Results from England, Greece and Turkey. (Monday 18<sup>th</sup> of May, Morning Session)</p>	<p>Children Affected by Maternal HIV/AIDS.</p> <p>5. Badr Alharbi, Ph.D. Student, University of Exeter, U.K. Islamic Religious Education to Citizenship Education in Elementary Schools in Saudi Arabia.</p>	<p>5. John Batten, Lecturer, The University of Winchester, U.K. &amp; Joanne Batey, Senior Lecturer, The University of Winchester, U.K. The Influence of Lecturer Reputation on the Behavioural Responses of Students.</p>	
*Jointly organized with the Computer Research Unit of ATINER			

11:00-12:30 Session V (ROOM A): Educational Foundations II	11:00-12:30 Session VI (ROOM B): Educational Psychology/Special Education/Abilities Education/Social Work & Education/Health Education I	11:00-12:30 Session VII (ROOM C): Higher Education II	11:00-12:30 Session VIII (ROOM D): Online and Distance Education and Other Issues I*
Chair: *Shizhou Lou, Professor, Doctoral Supervisor and Vice-President, Zhejiang Normal University, China	Chair: **Maureen Andrade, Associate Vice President, Utah Valley University, USA.	Chair: *Julia Underwood, Professor, Azusa Pacific University, USA	Chair: *Christina Zarcadoolas, Professor, City University of New York, USA.
<p>1. *MacLeans Geo-JaJa, Professor, Brigham Young University, USA. Human Rights and Shared Responsibility in Development Aid: The Nordic Model in Tanzania.</p> <p>2. Leonie Gysbeertha Higgs, Associate Professor, University of South Africa, South Africa. A Critical Overview of the Place of Theory in Teacher Education</p> <p>3. Adriano De Almeida Ferraiuoli, Teacher &amp; Researcher, IFF – Instituto Federal Fluminense Campus: Campos Centro, Brazil. The Pursuit of Aesthetic Education and Social Interaction in Visually Impaired Students Based on Practice in Woodcut.</p> <p>4. Said Boumghar, Lecturer, ENS Kouba Alger, Algeria. The Competency-Based Approach in a Traditional Educational Context.</p>	<p>1. Isao Miyaji, Professor, Okayama University of Science, Japan. Classification of Blended Classes Using Change of Attitude Related to Ability.</p> <p>2. Jeanne Repetto, Associate Professor, University of Florida, USA, Susan Horky, Co-Director and Social Work Faculty, University of Florida, USA, Arwa Saidi, Pediatric Cardiologist, University of Florida, USA, Angela Miney, Parent Liaison, University of Florida, USA &amp; Jenna Gonzelaz, EdHCT Program Coordinator, University of Florida, USA. The Education and Healthcare Transition (EDHCT): Supporting Systems Change for Young Adults with Invisible Chronic Illness (ICI).</p> <p>3. Judy Leichtentritt, Lecturer, Oranim College, Israel. Inclusion: The Perspective of Israeli</p>	<p>1. *Adriana Vitorino Rossi, Professor, University of Campinas, Brazil. Talk about Chemistry: A Voluntary and Effective Integration among the Players of Teaching Chemistry.</p> <p>2. *Barbara Bales, Associate Professor and Chair, Department of Curriculum and Instruction, Director, Center for New and Professional Educators, University of Wisconsin – Milwaukee, USA. Restructuring Teacher Education in the United States: Finding the Tipping Point.</p> <p>3. Elizabeth Curtis, Lecturer, Queensland University of Technology, Australia. The Values Dimension of Quality Teachers: Can we Prepare Pre-service Teachers for this?</p> <p>4. *Leda Kamenopoulou, Senior Lecturer, University of Roehampton, U.K.,</p>	<p>1. Gang Chen, Deputy Director, Shanghai Jiaotong University, China &amp; Ruimin Shen, Director, Shanghai Jiaotong University, China. Thinking about MOOCs. (Monday, 18<sup>th</sup> of May 2015)</p> <p>2. Nize Maria Campos Pellanda, Professor, Universidade de Santa Cruz do Sul, Brazil. The Technical Object as a Cognition / Subjectivity Tool.</p> <p>3. *Francisco Javier Delgado Cepeda, Professor, Instituto Tecnológico de Monterrey, Mexico, Ruben Dario Santiago-Acosta &amp; Lourdes Quezada-Batalla. Widget Based Learning in Math and Physics Undergraduate Courses as Blended Learning Approach. (Monday, 18<sup>th</sup> of May 2015)</p> <p>4. Mary Ellis, Senior Lecturer, National Institute of Education, Singapore &amp; Anitha Devi Pillai, Lecturer,</p>

	<p>Pupils with Learning Difficulties.</p> <p>4. <u>Junhong Zhu</u>, Post-doctoral Associate, University of Western Ontario, Canada and Lecturer, Hangzhou Normal University, China &amp; Sheila Rodgers, Head, University of Edinburgh, U.K. Can Education Resolve Nursing Shortage in China?</p>	<p>Jorun Buli-Holmberg, Associate Professor, University of Oslo, Norway &amp; Jan Siska, Associate Professor, Charles University, Czech Republic. The Impact of Post-Graduate Education on Teachers' Understanding of Inclusion and Special Education.</p>	<p>National Institute of Education, Singapore. The Information Seeking Behaviour of Academic Discourse Skills (ALS) Students and Effect on Student Research Papers.</p>
*Jointly organized with the Computer Research Unit of ATINER			

12:30-14:00 Session IX (ROOM A): Educational Foundations III	12:30-14:00 Session X (ROOM B): Language Learning I	12:30-14:00 Session XI (ROOM C): Higher Education III	12:30-14:00 Session XII (ROOM D): Online and Distance Education and Other Issues II*
Chair: *Adelia Parrado-Ortiz, Associate Professor, Lenoir-Rhyne University, USA.	Chair: Jeanne Repetto, Associate Professor, University of Florida, USA	Chair: *Adriana Vitorino Rossi, Professor, University of Campinas, Brazil.	Chair: *Francisco Javier Delgado Cepeda, Professor, Instituto Tecnológico de Monterrey, Mexico
<p>1. <u>Marcelo Paraiso Alves</u>, Professor, Centro Universitário de Volta Redonda e do Instituto Federal de Ciência e Tecnologia do Rio de Janeiro, Brazil, Gustavo Alves Vinand Kozłowski, Student, Centro Universitario de Volta Redonda, Brazil, Maria de Fatima Alves de Oliveira, Professor, Centro Universitario de Volta Redonda, Brazil, Maria Vinciprova Fonseca, Professor, Centro Universitario de Volta Redonda, Brazil, Carlos Sanches, Professor, Centro Universitario de Volta Redonda, Brazil, Rosane Moreira Silva de Meirelles, Professor, Centro Universitario de Volta Redonda, Brazil &amp; Ronaldo Figueiro, Professor, Centro Universitario de Volta Redonda, Brazil. Physical Practice and Environmental Education: Production of Didactic Material for the Teaching of Slakline.</p> <p>2. <u>Maria Cristina dos Santos Peixoto</u>, Professor, Universidade Estadual do Norte Fluminense, Brazil &amp; Sara Bahia,</p>	<p>1. *Sadiq Ismail, Associate Professor, United Arab Emirates University, United Arab Emirates. Secondary School Students' Reading Anxiety in a Second Language.</p> <p>2. **Maureen Andrade, Associate Vice President, Utah Valley University, USA. Online Distance English Language Learning: A Model for Success.</p> <p>3. *M<sup>a</sup> Carmen Fernandez Tijero, Lecturer, University of Valladolid, Spain. Project on Educative Innovation by University of Valladolid: Didactics of Language and Literature, Area for Developing Creativity and Intercultural Competences of the Education Professionals.</p> <p>4. <u>Armenuhi Martirosyan</u>, Lecturer, Yerevan State University, Armenia &amp; <u>Marine Mkrtchyan</u>, Lecturer, Yerevan State University, Armenia. Challenges in Teaching Latin and French Loan Words in the Language of Diplomatic Protocol.</p> <p>5. *Iria Vazquez Marino, ELE Teacher, Université Catholique de Lille, France, *June Srichinda, Lecturer, Université Catholique de Lille,</p>	<p>1. *Elizabeth Sturtevant, Professor, George Mason University, USA. Designing Effective Professional Development Programs for Teachers: Principles Developed from Research and Experience on Three Continents.</p> <p>2. <u>Jeannette Ford</u>, Associate Professor, Bethune-Cookman University, USA &amp; Gerda Sula, Ph.D., University of Tirana, Albania. The Promise of Pre-Service Teachers in Albania.</p> <p>3. Rian De Villiers, Associate Professor, University of Pretoria, South Africa. South African Migrant Teachers and the Reshaping of Knowledge Flows Globally.</p> <p>4. <u>Maria de Lourdes Machado-Taylor</u>, Researcher: CIPES &amp; A3ES, CIPES, Centre for Higher Education Policy Studies, A3ES, Agency for Assessment and Accreditation, Portugal &amp; Dennis Gregory, Associate Professor of Higher Education, Old Dominion University, USA. Comparison of the Academics Role in Accreditation Methods of Higher Education Institutions in Portugal</p>	<p>1. *Kamini Jaipal-Jamani, Associate Professor, Brock University, Canada &amp; Candace Figg, Associate Professor, Brock University, Canada. A Study of Gamification as an Instructional Strategy to develop Pre-service Teachers' Knowledge of Technology-enhanced Teaching.</p> <p>2. Maria de Fatima Goulao, Assistant Professor, Universidade Aberta, Portugal. The e-Activities to Support the Process of Teaching and Learning in Online Context. (Online &amp; Distance Education)</p> <p>3. Vessela Ilieva, Associate Professor, Utah Valley University, USA. A Model for Teaching Mathematics through Robotics Activities in Elementary School. (Monday, 18<sup>th</sup> of May 2015)</p>

<p>Universidade de Lisboa, Portugal. Cruising Routes on Arts Teaching in Portugal and in Brazil. (Monday, 18<sup>th</sup> of May 2015)</p> <p>3. Valbona Nathanaili, Director, European University of Tirana, Albania. Liberal Education as a Key for World Citizenship.</p> <p>4. Erika Marie Pace, Ph.D. Student, University of Salerno, Italy &amp; Paola Aiello, Assistant Professor, University of Salerno, Italy. Reflecting on Simplex Properties and Principles to Face the Complexity of Inclusive Classrooms.</p> <p>5. Carmen Lopez-Escribano, Senior Lecturer, Complutense University of Madrid, Spain, Montserrat Blanco-Garcia, Assistant Lecturer, University of Castilla-La Mancha, Spain &amp; Canabal Garcia Cristina, Senior Lecturer, University of Alcala, Spain. Supporting All Learners through "Universal Design for Learning": How to Motivate and Engage Students in Learning".</p> <p>6. Oscar Joao Abdounur, Associate Professor, University of Sao Paulo, Brazil. Music Structural Problems and Conception of Mathematical Ratio in Teaching/Learning Contexts: A Historic/Educational Approach.</p>	<p>France &amp; Kate Price, Lecturer, Universite Catholique de Lille, France. The Collaborative Experience (PLC) with Tablets: Moving Forward in a Language Classroom. (Monday, 18<sup>th</sup> of May 2015)</p>	<p>(Europe) and the US.</p>	
*Jointly organized with the Computer Research Unit of ATINER			

### 14:00-15:00 Lunch

15:00 -16:30 Session XIII (ROOM A): Educational Foundations IV	15:00 -16:30 Session XIV (ROOM B): Educational Administration/Gaming I	15:00 -16:30 Session XV (ROOM C): Higher Education IV	15:00 -16:30 Session XVI (ROOM D): Scientific Computing & Smart Technologies I*
Chair: *Jaime Jimenez, Scientist, Universidad Nacional Autonoma de Mexico, Mexico	Chair: *Sadiq Ismail, Associate Professor, United Arab Emirates University, United Arab Emirates.	Chair: *Barbara Bales, Associate Professor and Chair, Department of Curriculum and Instruction, Director, Center for New and Professional Educators, University of Wisconsin – Milwaukee, USA.	Chair: *Kamini Jaipal-Jamani, Associate Professor, Brock University, Canada

<p>1. <u>Carlos Iberico</u>, Head, Research Department of the Institute of University Teaching, Pontificia Universidad Catolica del Peru (PUCP), Peru &amp; <u>Julio Del Valle</u>, Director, Institute of University Teaching, Pontificia Universidad Catolica del Peru (PUCP), Peru. Students and Teachers' Perceptions on the Most Valued Teaching Practices.</p> <p>2. <u>Xin Liang</u>, Professor, The University of Akron, USA &amp; Linda Collins, Project Manager, The University of Akron, USA. The Impact of Formative Instructional Practice Professional Development on Instructional Change.</p> <p>3. <u>Omar Abdull Kareem</u>, Professor, Sultan Idris Education University, Malaysia &amp; Mei Kin Tai, Senior Lecturer, Institute Aminuddin Baki, Malaysia. An Exploration of the Relationship between Teacher Change Belief and Teacher Attitude toward Change.</p> <p>4. *<u>Sandra Harris</u>, Assessment Coordinator College of Social and Behavioral Studies, Walden University, USA &amp; <u>Rebecca Jacobson</u>, Adjunct Faculty, Capella University, USA. Relationships between Student Expectations, Demographic Characteristics, and Academic Background of Students in the Online Environment.</p>	<p>1. <u>Ronald Musoleno</u>, Associate Professor, The Pennsylvania State University, USA. Educational Leadership and Teacher Training, Anytime Anywhere.</p> <p>2. **<u>Karen Trimmer</u>, Associate Professor, University of Southern Queensland, Australia. Development of a Questionnaire to Measure Risk-Taking in Decision-Making by School Principals.</p> <p>3. <u>Perry Binder</u>, Clinical Associate Professor, Georgia State University, USA. Game of Tweets - Leveraging Social Media to Gamify Out-of-Class Activities. (Monday, 18<sup>th</sup> of May 2015)</p> <p>4. <u>Carla Silvanira Bohn</u>, Ph.D. Student, Federal University of Santa Catarina, Brazil, Joao Bosco da Mota Alves, Professor, Federal University of Santa Catarina, Brazil &amp; Gertrudes Aparecida Dandolini, Professor, Federal University of Santa Catarina, Brazil. Electronic Games and Its Contribution to Educational Practice: A Study from the State Public School System by the Perception of Educators.</p> <p>5. <u>Christina Tsiolakki</u>, Ph.D. Student, Frederick University, Cyprus. Practical Guide to Effective Leadership for School Managers.</p>	<p>1. <u>Omar De la Cruz</u>, Lecturer, Universidad de Alcala (UAH), Spain, <u>Lourdes De Miguel Barcala</u>, Lecturer, Universidad de Alcala (UAH), Spain, Lopez Carrillo Maria Dolores, Lecturer, Andrade Olalla Antonia, Professor, Cano Martil Samuel, Lecturer, Franco Rodriguez Jose Ramon, Lecturer, Tello Inmaculada, Lecturer, Calonge Amelia, Lecturer &amp; Emilio Jose Lopez, Lecturer, Universidad de Alcala (UAH), Spain. Collaborative Learning Network to Develop Transversal Competences in Graduate Studies.</p> <p>2. *<u>Elwyn Cox</u>, Programme Leader in Sport Management and Senior Lecturer, University of Winchester, U.K. Is it Possible to Meet Students' Expectations in Delivering Curricula?</p> <p>3. <u>Silvio Fernandes de Paula</u>, Systems Analyst, University of Sao Paulo, Brazil, <u>Gisele Lopes Batista Pinto</u>, Systems Analyst, University of Sao Paulo, Brazil, Helio Nogueira da Cruz, Professor, University of Sao Paulo, Brazil, Jose de Oliveira Siqueira, Professor, University of Sao Paulo, Brazil, Emma Otta, Professor, University of Sao Paulo, Brazil &amp; Elizabeth Balbachevsky, Associate Professor, University of Sao Paulo, Brazil. Profile of the Alumni of University of São Paulo – 2012.</p>	<p>1. <u>Stepan Bilan</u>, Professor, State Economy and Technology University of Transport, Ukraine, Mykola Bilan, Head of Control and Dispatch Center, "Transnistrian Radio and Television Center" OJSC, Moldova &amp; Sergii Bilan, Technical Lead, Win-Interactive LLC, Ukraine. Application of Methods of Organization of Cellular Automata to Implement Devices of Forming Pseudorandom Sequences.</p> <p>2. *<u>Constantinos Sourkounis</u>, Head of EneSys Institute, Ruhr-University Bochum, Germany &amp; Philip Dost, Scientific Assistant, EneSys Institute, Ruhr-University Bochum, Germany. Battery Management System tasks in an Electric Vehicle.</p> <p>3. *<u>Jan Collie</u>, Ph.D. Student, University of South Wales, U.K. Tracing Forensic Artifacts from USB-Bound Computing Environments on Windows Hosts.</p>
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16:30-18:00 Session XVII (ROOM A): Educational Foundations V	16:30-18:00 Session XVIII (ROOM B): Pre-School/ Elementary Education II	16:30-18:00 Session XIX (ROOM C): Secondary Education I	16:30-18:00 Session XX (ROOM D): Business & Management Systems*
Chair: * <u>Sandra Harris</u> , Assessment Coordinator College of Social and Behavioral Studies, Walden University, USA	Chair: * <u>M<sup>a</sup> Carmen Fernandez Tijero</u> , Lecturer, University of Valladolid, Spain	Chair: <u>Karen Freeman</u> , Assistant Professor, Chicago State University, USA	Chair: <u>Stepan Bilan</u> , Professor, State Economy and Technology University of Transport, Ukraine
<p>1. Annemarie Loubser, Lecturer, North-West University, South Africa. The Impact of Appropriate Learning and Teaching Support Material on the Perceptual-Motor Development Skills of Kindergarten Learners.</p> <p>2. <u>Pervin Oya Taneri</u>, Academic Staff, Cankiri Karatekin University, Turkey &amp; Nalan Akduman, Teacher, IMKB Etimesgut Süvari Elementary School, Turkey. Exploring Teacher Candidates' Views on Education Reforms.</p> <p>3. *<u>Jaime Jimenez</u>, Scientist, Universidad Nacional Autonoma de Mexico, Mexico, Alejandro Barragan, Teacher-Researcher, Universidad Nacional Autonoma de Mexico, Mexico, Monica Velasco, Scientist, Centro de Investigacion en Geografia y Geomatica "Ing. Jorge L. Tamayo", Mexico &amp; Ramon Marin, Teacher-Researcher, Universidad Iberoamericana, Mexico. Alternative Learning and Research Leading to Development.</p> <p>4. <u>Christian Mayer</u>, Ph.D. Candidate, Universidad Católica San Antonio de Murcia, Spain &amp; Oliver Gansser, Professor, FOM University of Applied Sciences, Germany. Challenging Analogical Encoding under Real Educational Conditions.</p>	<p>1. <u>Sylvain Coutu</u>, Professor, Université du Québec en Outaouais (UQO), Canada, Camille Coutu, Student, University of Ottawa, Canada, Diane Dubeau, Professor, Université du Québec en Outaouais (UQO), Canada, Annie Berube, Professor, Université du Québec en Outaouais (UQO), Canada &amp; Christelle Robert, Professor, Université du Québec en Outaouais (UQO), Canada. The Socialisation of Emotions in Daycare Centres: The Early Childhood Educators' Perspective.</p> <p>2. <u>Marcela Batistic Zorec</u>, Associate Professor, University of Ljubljana, Slovenia. The Competent Child: Alternatives in Preschool Education.</p> <p>3. <u>Khaled Asad</u>, Lecturer, Al-qasemi Academic College of Education &amp; Beit-berl Academic College of Education, Israel. Teaching Computer Science and Mathematics to Young Children in the Context of Image Processing: Cognitive and Affective Aspects.</p> <p>4. <u>Laura Coetzer</u>, Senior Lecturer, Tshwane University of Technology, South Africa. Out-of-Field Education: The Phenomenon as Encountered in Rural Schools in South Africa.</p> <p>5. <u>Orhan Hanbay</u>, Deputy Manager, Adiyaman University, Turkey &amp; <u>Yakup Tekin</u>, Primary School Teacher, Primary School in Mersin, Turkey. Teacher Survey on Reading Competence and Reading</p>	<p>1. <u>Billie Eilam</u>, Professor Emeritus, University of Haifa, Israel, Ilana Sinai, Ph.D. Student &amp; Seena Yasin Amar, University of Haifa, Israel. Textbook Visual Representations: The Case of High-School Ecology.</p> <p>2. <u>Ziva Deutsch</u>, Head of Math Department, Michlala, Jerusalem College, Israel &amp; Hava Greensfeld, Head of Research Unit, Michlala, Jerusalem College, Israel. The Centrality of Positive Emotions in the field of Mathematics.</p> <p>3. <u>Eufrasio Perez- Navio</u>, University of Jaen, Spain, <u>Maria Luisa Zagalaz-Sanchez</u>, Professor, University of Jaen, Spain, <u>Ana Maria Ortiz-Colon</u>, Professor, University of Jaen, Spain &amp; Javier Cachon-Zagalaz, Professor, University of Jaen, Spain. Professional Preferences of High School Students at Schools of the Environment of the City of Guadix (Granada-Spain).</p>	<p>1. **<u>Rachid Benmoussa</u>, Professor, Cadi Ayyad University, Morocco. An Approach for the Identification of Misalignment in ERP Implementation.</p> <p>2. <u>Hemant Jain</u>, Roger L. Fitzsimonds Distinguished Scholar and Professor, University of Wisconsin Milwaukee, USA. Service Oriented, Event Driven, Smart Cyber - Agent (SES) Approach for Real Time Management of Global Manufacturing Enterprises. (Monday, 18<sup>th</sup> of May 2015)</p> <p>3. <u>Philip Dost</u>, Scientific Assistant, EneSys Institute, Ruhr-University Bochum, Germany &amp; Constantinos Sourkounis, Head of EneSys Institute, Ruhr-University Bochum, Germany. Generalized Lead-Acid based Battery Model used for a Battery Management System.</p>

17<sup>th</sup> Annual International Conference on Education, 18-21 May 2015, Athens, Greece:  
Abstract Book

5. <b>**Daphne Vidanec,</b> Senior Lecturer, Balthazar Zapresic University of Applied Sciences, Croatia. Towards the Value of Labor within the Context of Teaching Business Ethics in Higher Education.	Competence Promotion in Turkish Primary Schools.		
<i>*Jointly organized with the Computer Research Unit of ATINER</i>			

18:00-20:00 Session XXI (ROOM B): Education Themes I	18:00-20:00 Session XXII (ROOM C): Educational Foundations VI	18:00-20:00 Session XXIII (ROOM D): Higher Education V
Chair: Annemarie Loubser, Lecturer, North-West University, South Africa.	Chair: Kate Price, Lecturer, Universite Catholique de Lille, France	Chair: <u>*June Srichinda</u> , Lecturer, Universite Catholique de Lille, France.
<p>1. <u>*Marcos Cesar Danhoni Neves</u>, Professor, State University of Maringa, Brazil &amp; Josie Agatha Parrilha da Silva, Associate Professor, State University of Ponta Grossa, Brazil. Art and Science: Articulating a Contemporary Dialogue using the Perspective of the Renaissance (Relation Galileo-Cigoli Rediscovered).</p> <p>2. Efthymia Efthymiou, Assistant Professor, United Arab Emirates University, UAE. The Development of Education-Centred Pedagogies: Trends in Two Mainstream Classes towards a More or Less Equitable and Inclusive Environment for Students with SEND.</p> <p>3. Eduard Lukac, Associate Professor, University of Presov, Slovakia. Education and Enlightenment of Jewish Population in Slovakia until 1945 – On Example of Microhistory of Town of Presov.</p> <p>4. Marek Lukac, Assistant Professor, University of Presov, Slovakia. Integration and Segregation in the Education of Roma Minority.</p>	<p>1. Maria Dolores Garcia Campos, Senior Lecturer, University of Alcala, Spain, <u>Cristina Canabal Garcia</u>, Senior Lecturer, University of Alcala, Spain, Guillermina Gavaldon Hernandez, Senior Lecturer, University of Alcala, Spain &amp; Carmen Lopez-Escribano, Senior Lecturer, Universidad Complutense De Madrid, Spain. Universal Design for Learning: The Possibilities to Address Diversity Attending the Different Ways of Learning and Forms to Demonstrate what has been Learned.</p> <p>2. Lynda George, Professor, Central Connecticut State University, USA. Lessons from Socrates: The Depth of His Teaching Goes Far Beyond the Socratic Method.</p> <p>3. Eliane Schlemmer, Researcher, Universidade do Vale do Rio dos Sinos –UNISINOS, Brazil. Gamification in Hybrid and Multimodal Coexistence Spaces: Design and Cognition in Discuss.</p> <p>4. Hulya Saygili, Lecturer, Ankara University, Turkey. Why Do They Think They Cannot Succeed? (Monday, 18 May 2015)</p>	<p>1. <u>*Davida Scharf</u>, Director of Reference and Instruction, New Jersey Institute of Technology, USA. Research Roadmaps: A Practical Model for Embedding Critical Thinking, Research Skills and their Assessment across the Undergraduate Curriculum.</p> <p>2. <u>*Vera Helena Ferraz de Siqueira</u>, Professor, Federal University of Rio de Janeiro, Brazil, Gloria Walkyria Arrigoni, Researcher, Federal University of Rio de Janeiro, Brazil, Daine Agostini, Student, Federal University of Rio de Janeiro, Brazil &amp; Lucas de Almeida Brito, Student, Federal University of Rio de Janeiro, Brazil. Identity Construction at Brazilian Public Universities in the Context of Recent Struggles and Policies.</p> <p>3. George Tsakirakis, Lecturer, United Arab Emirates University, UAE. Computer Adaptive Tests: An Indicator for Academic Achievement?</p> <p>4. <u>Sebnem Yildirim Orhan</u>, Associate Professor, Gazi University, Turkey &amp; Elif Taninmis, Assistant Professor, Gazi University, Turkey. An Ideal Postgraduate Program from the Perspective of Postgraduate Music Students.</p>

**21:00-23:00 Greek Night and Dinner (Details during registration)**

**Tuesday 19 May 2015**  
(all sessions include 10 minutes break)

08:00-09:45 Session XXIV (ROOM A): Educational Foundations VII	08:00-09:45 Session XXV (ROOM B): Pre-School/Elementary Education III	08:00-09:45 Session XXVI (ROOM C): Higher Education VI	08:00-09:45 Session XXVII (ROOM D): Biomedical and Digital Health*
Chair: *Elwyn Cox, Programme Leader in Sport Management and Senior Lecturer, University of Winchester, U.K.	Chair: *Zaira Wahab, Associate Professor, Iqra University, Pakistan.	Chair: *Elizabeth Sturtevant, Professor, George Mason University, USA.	Chair: *Constantinos Sourkounis, Head of EneSys Institute, Ruhr-University Bochum, Germany
<ol style="list-style-type: none"> <li>1. Philip Higgs, Emeritus Professor and Research Fellow, University of South Africa, South Africa. Can Education be Democratic?</li> <li>2. <u>Iolanda Zollo</u>, Ph.D. Student, University of Salerno, Italy &amp; Maurizio Sibilio, Professor, University of Salerno, Italy. Possible Didactic Applications of Creative Thinking Theories within a Simplex Didactics Perspective.</li> <li>3. <u>Qi Gong</u>, Section Member, Anhui University, China &amp; <u>Mi Fang</u>, Section Member, Anhui University, China. Promotion of Chinese Traditional Culture to Enhance the Humanistic Aptitude of Undergraduates.</li> <li>4. <u>Ariane Baffa Lourenco</u>, Post-Ph.D., Universidade De Sao Paulo, Brazil, Jerino Queiroz Ferreira, Master, Universidade De Sao Paulo, Brazil &amp; Salet Linhares Queiroz, Professor, Universidade De Sao Paulo, Brazil. Promoting Argumentation in Chemistry Teaching: Experiences of Pre-service Teachers.</li> <li>5. <u>Claudia Souza Passador</u>, Professor, University of Sao Paulo (USP), Brazil &amp; Joao Luiz Passador, Professor, University of Sao Paulo (USP), Brazil. Analysis of the</li> </ol>	<ol style="list-style-type: none"> <li>1. Olga Poljšak Škraban, Assistant Professor, University of Ljubljana, Slovenia, Špela Razpotnik, Assistant Professor, University of Ljubljana, Slovenia, Nada Turnšek, Assistant Professor, University of Ljubljana, Slovenia, Jana Rapuš Pavel, Assistant Professor, University of Ljubljana, Slovenia. Preschools and schools responding to vulnerable families with children.</li> <li>2. Helena Korosec, Senior Lecturer, University of Ljubljana, Slovenia. Creative Drama: Between the Process and the Project.</li> <li>3. Judita Kanjo, Research Associate, University of Education Ludwigsburg, Germany. Gender and Literature Didactics. How Does the Choice of Texts Affect Reading Competence?</li> <li>4. <u>Adelina Sporea</u>, Senior Research Scientist, National Institute for Laser, Plasma and Radiation Physics, Romania &amp; Dan Sporea, Head of Laboratory, National Institute for Laser, Plasma and Radiation Physics, Romania. European Projects Impact on Science Teaching in Romania.</li> <li>5. <u>Yvona Kostelecka</u>, Researcher, Charles University in Prague, Czech Republic &amp; Tomas Kostecky, Researcher, Czech Academy of Sciences, Czech Republic. Factors that Influence the Acquisition of the Czech</li> </ol>	<ol style="list-style-type: none"> <li>1. Pauline Collins, Senior Lecturer, University of Southern Queensland, Australia. Legal Education at a Cross Roads. The Australian Experience.</li> <li>2. Thelma De Jager, Lecturer, Tshwane University of Technology, South Africa. Using a Biometric Fingerprint Device to Record and Encourage Class Attendance and Active Student Participation.</li> <li>3. <u>Ray Langsten</u>, Research Associate Professor, American University in Cairo, Egypt &amp; <u>Fatma Said Mahrous</u>, Research Assistant, American University in Cairo, Egypt. Track and Sector in Egyptian Higher Education: Who Studies Where and Why?</li> <li>4. <u>Luisa Cerdeira</u>, Professor, University of Lisboa, Portugal, Maria de Lourdes Machado-Taylor, Researcher, CIPES - Centre for Higher Education Policy Studies, Portugal, Rui Gomes, Professor, University of Coimbra, Portugal, Joao Teixeira Lopes, Professor, University of Porto, Portugal, Henrique Vaz, Professor, University of Porto, Portugal, Rui Brites, Professor, University of Lisboa, Portugal, Belmiro Cabrito, Professor, University of Lisboa, Portugal, Rafaela Ganga,</li> </ol>	<ol style="list-style-type: none"> <li>1. *Christina Zarcadoolas, Professor, City University of New York, USA. US Consumer Attitudes and Perceptions about mHealth Privacy and Security. (Bio-Medical and Digital Health)</li> <li>2. <u>Henriette Nakad-Weststrate</u>, Ph.D. Candidate, Leiden University, The Netherlands, Ton Jongbloed, Professor, Utrecht University, The Netherlands, Jaap Van den Herik, Professor, Leiden University, The Netherlands &amp; Abdel-Badeeh M. Salem, Professor, Ain Shams University, Egypt. The Influence of Artificial Intelligence on Consumer Protection in Dept Collection Proceedings at e-Court, the First Private Online Court of The Netherlands. (Bio-Medical and Digital Health)</li> <li>3. MengMeng Wu, Student, Wuhan University, China &amp; Shiwen Wu, Lecturer, Wuhan University, China. Consciously Cognizing and Unconsciously Sharing: Process Fake Health Information in the Microblog.</li> </ol>

Performance of Public Schools in Brazil: The case of Public Policy Rural Education. (Tuesday, 19 <sup>th</sup> of May 2015)	Language Skills by Children of Foreigners at Czech Elementary Schools.	Researcher, University of Coimbra, Portugal, Dulce Magalhaes, Professor, University of Porto, Portugal, Tomas Patrocinio, Professor, University of Lisboa, Portugal, Paulo Peixoto, Professor, University of Coimbra, Portugal, & Silvia Silva, Ph.D. Student, University of Coimbra, Portugal. Brain Drain, Mobility and Emigration of High Skilled Professionals from Portugal to Europe.	
<i>*Jointly organized with the Computer Research Unit of ATINER</i>			

09:45-11:30 Session XXVIII (ROOM A): Educational Foundations VIII	09:45-11:30 Session XXIX (ROOM B): Educational Psychology/Special Education/Abilities Education/Social Work & Education/Health Education II	09:45-11:30 Session XXX (ROOM C): Higher Education VII	09:45-11:30 Session XXXI (ROOM D): Online and Distance Education and Other Issues III*
Chair: *MacLeans Geo-JaJa, Professor, Brigham Young University, USA.	Chair: **Orly Kayam, Director, Pre-Academic Preparatory Programs, Wingate Academic College, Israel.	Chair: Pauline Collins, Senior Lecturer, University of Southern Queensland, Australia.	Chair: *Till Hanisch, Professor, BW State University, Heidenheim, Germany.
<p>1. <u>Heikki Silvennoinen</u>, Professor, University of Turku, Finland &amp; Matti Lindberg, Senior Researcher, University of Turku, Finland. Skill Level Differences Between the Employed and Unemployed in High-Skilled Countries.</p> <p>2. Adeeb Jarrah, Assistant Professor, United Arab Emirates University, United Arab Emirates. Investigation of Preservice Teachers' Beliefs about Learning and Teaching of Mathematics: The Case of Jordanian Universities.</p> <p>3. <u>Hernan Astudillo</u>, Professor, Universidad de Concepcion, Chile, Claudio A. Faundez, Professor, Universidad de Concepcion, Chile, Patricio G. Salgado, Professor, Universidad de Concepcion, Chile &amp;</p>	<p>1. Juan Eliseo Montoya Marin, Professor, Universidad Pontificia Bolivariana, Colombia. Literary Therapeutics.</p> <p>2. <u>Leehu Zysberg</u>, Chair of the Research Authority and Associate Professor, Gordon College of Education, Israel &amp; <u>Ditza Maskit</u>, Research Committee and Senior Lecturer, Gordon College of Education, Israel. Teacher's Emotional Intelligence, Emotional Experiences and Professional Development.</p> <p>3. *Zaira Wahab, Associate Professor, Iqra University, Pakistan. How Do I Categorize My World? Teachers' and Students' Reminiscences from Inclusive Classes.</p> <p>4. Jana Rapus Pavel, Assistant Professor, University of Ljubljana, Slovenia. Collaboration of Parents and Educators in Cases of Children Placed in Residential Care Homes – Parental Perspective.</p>	<p>1. <u>Doris Walker-Dalhouse</u>, Professor, Marquette University, USA &amp; <u>A. Derick Dalhouse</u>, Professor Emeritus, Minnesota State University Moorhead, USA. Preservice Teachers' Cross-Cultural Competence in Teaching about Immigrants and Refugees.</p> <p>2. Carolyn King, Programme Leader, University of Central Lancashire, U.K. Nip &amp; Tuck: The Humanities and Social Sciences under the Knife. (Morning Session)</p> <p>3. <u>Maria Dolores Lopez Carrillo</u>, Lecturer, Universidad de Alcala, Spain &amp; Omar de la Cruz Vicente, Lecturer, Universidad de Alcala, Spain. Dichotomous Keys and Collections in Elementary Education.</p>	<p>1. Ellen Rose, Professor, University of New Brunswick, Canada. Reflection in Online Learning: A Systematic Literature Review.</p> <p>2. <u>Valentina Tarkovska</u>, Assistant Lecturer, Dublin Institute of Technology, Ireland, Lucia Morales, Lecturer, Dublin Institute of Technology, Ireland &amp; Amparo Soler-Dominguez, Lecturer, Jaume I University, Spain. Self-Regulated Learning and the Role of ePortfolios in Business Studies.</p> <p>3. Costantino Thanos, Research Director, Italian National Research Council, Italy. The Future of Digital Scholarship.</p> <p>4. <u>Abide Coskun Setirek</u>, Research Assistant, Bogazici University, Turkey &amp; Zuhul Tanrikulu, Professor, Bogazici University, Turkey. Mobile Learning - Continued</p>

<p>Jose Sanchez, Professor, Universidad de Concepcion, Chile. Agent-Based Model for the Analysis of Teaching, Learning and Assessment Processes in the Classroom.</p> <p>4. <u>Pedro Donizete Colombo Junior</u>, Professor, Federal University of Triangulo Mineiro, Brazil, Daniel Fernando Bovolenta Ovigli, Professor, Federal University of Triangulo Mineiro, Brazil &amp; Ariane Baffa Lourenco, Post-Ph.D., University of Sao Paulo, Brazil. The School-Museum Partnership in Brazil: What does Research Says?</p> <p>5. *Maria Rosaria D'Acerno, Associate Professor, Universita Parthenope Napoli, Italy. Motor Skills and Language to Help Autistic Children.</p>	<p>5. *<u>Katerina Dounavi</u>, Lecturer, Queen's University Belfast, Northern Ireland, Karola Dillenburger, Professor, Queen's University Belfast, Northern Ireland &amp; Mickey Keenan, Professor, Ulster University, Northern Ireland. Autism and ABA: Best Practice in America and the Way Forward for Europe.</p> <p>6. <u>Simona Marica</u>, Lecturer, Spiru Haret University of Bucarest, Romania, Laura Goran, Professor, Spiru Haret University of Bucarest, Romania &amp; Simona Trifu, Lecturer, University of Medicine and Pharmacy Carol Davilla, Romania. Building a Psycho-Education Guide for Parents of Children with Autism Spectrum Disorders. (Tuesday)</p>	<p>4. Rebecca Spooner-Lane, Lecturer, Queensland University of Technology, Australia. Authentic Assessment for Learning in a Capstone Experience for Teacher Education.</p> <p>5. <u>Hava Greensfeld</u>, Head of Research Unit, Michlala, Jerusalem College, Israel &amp; Efrat Nevo, Teacher Educator, Michlala, Jerusalem College, Israel. Students Facing Examples.</p> <p>6. <u>Asmiaty Amat</u>, Associate Professor, Universiti Malaysia Sabah, Malaysia, Lokman Abdul Samad, Universiti Malaysia Sabah, Malaysia, Yasmin Oiin Bh, Universiti Malaysia Sabah, Malaysia &amp; Aishah Tamby Omar, Universiti Malaysia Sabah, Malaysia. Creative Writing Course in Liberal Studies: Implementation and Implications.</p>	<p>Success or Emerging Problems? (Online and Distance Education)</p> <p>5. *Elvis Foster, Associate Professor and Chair of Computer Science, Keene State College, USA. Towards Measuring the Impact of Management Support Systems on Contemporary Management. (Tuesday)</p>
*Jointly organized with the Computer Research Unit of ATINER			

11:30-13:00 Session XXXII (ROOM A): Education Themes II	11:30-13:00 Session XXXIII (ROOM B): Language Learning II	11:30-13:00 Session XXXIV (ROOM C): Higher Education VIII	11:30-13:00 Session XXXV (ROOM D): Online and Distance Education and Other Issues IV*
Chair: * <u>Katerina Dounavi</u> , Lecturer, Queen's University Belfast, Northern Ireland	Chair: <u>Leehu Zysberg</u> , Chair of the Research Authority and Associate Professor, Gordon College of Education, Israel	Chair: Rebecca Spooner-Lane, Lecturer, Queensland University of Technology, Australia.	Chair: *Elvis Foster, Associate Professor and Chair of Computer Science, Keene State College, USA.
<p>1. Lourdes Helena Silva, Professor, Universidade Federal de Vicos, Brazil &amp; Elida Miranda, Professor, University of Tocantins, Brazil. Rural Education and Rural Extension: Paulo Freire Contributions to the Agrarian Residence Program.</p> <p>2. Brett Moore, School Principal, Sunbury Downs Secondary</p>	<p>1. **Orly Kayam, Director, Pre-Academic Preparatory Programs, Wingate Academic College, Israel. The Language of Obama: A Rhetorical Analysis. An Examination of the Emotive Rhetorical Devices appearing in Barack Obama's 2008 Campaign Speeches Leading Up to his Inauguration.</p> <p>2. <u>Maria Vinciprova Fonseca</u>, Professor,</p>	<p>1. <u>Maria Bujalkova</u>, Head, Institute of Foreign Languages, Comenius University in Bratislava, Slovakia &amp; <u>Petra Zrnikova</u>, Lecturer, Comenius University in Bratislava, Slovakia. Nonverbal Communication and its Importance for the Development of Foreign Language Professional Competence in Medical and Dentistry Students.</p> <p>2. <u>Daniel Fernando Bovolenta Ovigli</u>, Professor, Federal</p>	<p>1. *Till Hanisch, Professor, BW State University, Heidenheim, Germany. The Case for a Functional Internet of Things. (Tuesday Morning)</p> <p>2. Berrin Yanikkaya, Associate Professor, Yeditepe University,</p>

<p>College, Australia. Situated Learning in a School-University Partnership Project: Integrating Pre-Service Teacher Education in School-Based Educational Change. (Tuesday, 19<sup>th</sup> of May, 2015 - Morning Session)</p> <p>3. *Hamadullah Kakepoto, Professor, University of Sindh, Pakistan. Social Issues of Fareast &amp; Southeast Asia Region with Special Focus on Pakistan.</p> <p>4. Irit Aharon, Ph.D. Student, University of Haifa, Israel &amp; Billie Eilam, Professor, University of Haifa, Israel. Speed of Discrimination of Quantities in Different Styles of Decorated Pie Graphs.</p> <p>5. Nancy Sardone, Associate Professor, Georgian Court University, USA &amp; Roberta Devlin-Scherer, Professor, Seton Hall University, USA. Games &amp; Gamification as a Strategy to Enhance Critical Thinking.</p>	<p>Centro Universitario de Volta Redonda, Brazil, Adilson Pereira, Professor, Centro Universitario de Volta Redonda, Brazil, Marcelo Paraiso Alves, Professor, Centro Universitario de Volta Redonda, Brazil &amp; Maria de Fatima Alves de Oliveira, Professor, Centro Universitario de Volta Redonda, Brazil. Reading, Literature, Education: Possible Encounters in the English as a Foreign Language Class.</p> <p>3. German Correa Rios, Student, Universidad El Bosque, Colombia, Luisa Alfaro Lopez, Student, Universidad El Bosque, Colombia &amp; Jonathan Orduna Mejia, Student, Universidad El Bosque, Colombia. EFL Curriculum Design Based on Peirce Sign Theory to Foster Lexical Competence and Linguistic Performance in Young English Learners.</p> <p>4. Fazilah Husin, Senior Lecturer, Putra University of Malaysia, Malaysia. Evaluation on Solo Performance Module for Language Teaching &amp; Learning.</p> <p>5. Sun Yu Hon, Assistant Lecturer, The Chinese University of Hong Kong, Hong Kong. Experimental Research on different cultural background of Composition with Pictures description in Chinese Learning as a Second Language.</p> <p>6. *Sandra Patricia Lastra Ramirez, Professor, University of Tolima, Colombia. Constructing Professional Identity through Metaphors: What Student-Teachers' Have to Say about their Profession.</p>	<p>University of Triangulo Mineiro, Brazil, Ariane Baffa Lourenco, Post-Ph.D., University of Sao Paulo, Brazil &amp; Pedro Donizete Colombo Junior, Professor, Federal University of Triangulo Mineiro, Brazil. Public Policies for Access to Higher Education in Brazil: Majors in Natural Sciences and Mathematics in Rural Education Undergraduate Courses.</p> <p>3. Andrea Koblizkova, Head of Language Centre, University of Pardubice, Czech Republic. Central Role of Intercultural Competence to the Concept of Internationalization in Tertiary Education.</p> <p>4. *Celso Dal Re Carneiro, Associate Professor, University of Campinas, Brazil, Jose Roberto Serra Martins, Professor, Federal Institute of Sao Paulo, Brazil, Pedro Wagner Goncalves, Professor, University of Campinas, Brazil &amp; Allan Eduardo Cano, Undergraduate Student, University of Campinas, Brazil. Earth System Science as a Critical Knowledge for Educating Geographers and Other Professionals to Interact With Earth.</p> <p>5. Alice Shama, Student and Research Assistant, Joaquim Nabuco Foundation (Fundação Joaquim Nabuco, FUNDAJ), Brazil &amp; Cibele Rodrigues, Professor, Joaquim Nabuco Foundation (Fundação Joaquim Nabuco, FUNDAJ), Brazil. More Education Program: Dealing with Inequalities within Brazil's Educational System.</p>	<p>Turkey. We're On the Road to Where?: Teaching Ethics in the Age of Digital Communication.</p> <p>3. Igor Gurevich, Senior Researcher, HETNET Consulting Company, Russia. Information Characteristics of Physical Systems.</p>
*Jointly organized with the Computer Research Unit of ATINER			

**13:00-14:00 Lunch**

14:00-15:00 Session XXXVI (ROOM B): Educational Foundations X	14:00-15:00 Session XXXVII (ROOM C): Secondary Education II
Chair: *Hamadullah Kakepoto, Professor, University of Sindh, Pakistan.	Chair: Ms. Olga Gkounta, Researcher, ATINER
<ol style="list-style-type: none"> <li>1. **Lorna Hamilton, Senior Lecturer, University of Edinburgh, U.K., <u>Dimitra Tsakalou</u>, Ph.D. Student, University of Edinburgh, U.K. &amp; Jane Brown, Senior Research Fellow, University of Edinburgh, U.K. Constructing Inclusive Communities in the Greek Context.</li> <li>2. *Adelia Parrado-Ortiz, Associate Professor, Lenoir-Rhyne University, USA. Inquiry-Guided Learning Pedagogies: A New Approach to Achieve Collaborative Teaching and Learning.</li> </ol>	<ol style="list-style-type: none"> <li>1. Sandra Musanti, Assistant Professor, University of Texas at Brownsville, USA &amp; Monica Eva Pini, Professor, Universidad Nacional de San Martin, Argentina. Exploring High School Students' Cultural Consumption and Digital Practices. (Tuesday, 19th of May 2015, afternoon)</li> <li>2. Chi Hung Leung, Assistant Professor, The Hong Kong Institute of Education, Hong Kong. Understanding Adolescents' Attitudes toward Gambling with the new Theory of Reasoned Action (TRA) Measure in Macau.</li> <li>3. Suegnet Smit, Lecturer, North-West University, South Africa. Using Participatory Visual Strategies to Orient Grade 12 Learners to Make Constructive Career Choices.</li> </ol>

15:00-17:30 Urban Walk (Details during registration) - GROUP A

17:00-17:30 Session XXXVII (ROOM B): Philosophy of Education
Dr. George Poulos, Vice-President of Research, ATINER & Emeritus Professor, University of South Africa, South Africa.
<ol style="list-style-type: none"> <li>1. Leoni Maria Padilha Henning, Professor, State University of Londrina, Brazil. Problematic Relationships of Philosophy and Education in Brazil: Implications on Teacher's Training Courses.</li> </ol>

17:30-20:00 Urban Walk (Details during registration) - GROUP B

19:00-21:00 (ROOM C) Meeting of the Higher Education Institution (HEI) Project Group
Chair: Dr. George Poulos, Vice-President of Research, ATINER & Emeritus Professor, University of South Africa, South Africa.
<b>Participants: TBA</b>

21:00- 22:00 Dinner (Details during registration)

<b>Wednesday 20 May 2015</b> <b>Cruise: (Details during registration)</b>
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<b>Thursday 21 May 2015</b> <b>Delphi Visit: (Details during registration)</b>
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**Oscar Joao Abdounur**

Associate Professor, University of Sao Paulo, Brazil

**Music Structural Problems and Conception of  
Mathematical Ratio in Teaching/Learning Contexts:  
A Historic/Educational Approach**

This presentation covers questions of how the relationship between mathematics and theoretical music throughout western history shaped modern comprehension of critical notions such as “ratio” and “proportion”; exploring the educational potentiality of such a comprehension. In order to do that, it will be consider a procedure taken by Erasmus of Höritz, a Bohemian mathematician and music theorist who emerged in the early 16<sup>th</sup> century as a German humanists very articulate with musical matters. In order to divide the tone, Erasmus preferred to use a numerical method to approach the geometrical mean, although his procedure did not recognize itself as an approximation of the true real number value of the geometric mean. The Early Modern Period saw the growing use of geometry as an instrument for solving structural problems in theoretical music, a change not independently from those occurred in the conception of ratio/number in the context of theoretical music. In the context of recovery of interest in Greek sources, Erasmus communicated to musical readers an important fruit of such a revival and was likely the first in the Renaissance to apply explicitly Euclidean geometry to solve problems in theoretical music. Although Erasmus also considered the tradition of *De institutione musica* of Boethius, he was based strongly on Euclid’s *The Elements*, using geometry in his *De musica* in different ways in order to solve musical problems. It is this comprehensive geometrical work rather than the summary arithmetical and musical books of Boethius that serves Erasmus as his starting-point. However, Erasmus proposed a proportional numerical division of the whole tone interval sounding between strings with length ratio of 9:8, since it was a primary arithmetical problem. This presentation aims at showing the educational potentiality of the implications of such a procedure of Erasmus on the transformation of conception of ratio and on the emergence of the idea of modern number in theoretical music contexts. Under a broader perspective, it aims at show the implications on education of a historical/epistemological and interdisciplinary appraisal of theoretical music and mathematics.

**Omar Abdull Kareem**

Professor, Sultan Idris Education University, Malaysia

&

**Mei Kin Tai**

Senior Lecturer, Institute Aminuddin Baki, Malaysia

### **An Exploration of the Relationship between Teacher Change Belief and Teacher Attitude toward Change**

The purpose of the study was twofold: a) to examine the causal relationship of teacher change beliefs (TCB) and teacher attitudes toward change (TATC); b) to investigate the moderating effects of Principal Change Leadership Competencies (PCLC), gender, age, year of experience, and school location on the above relationship. TCB, TATC and PCLC were measured using *Teacher Change Beliefs Scale*, *Teacher Attitudes toward Change Scale*, and *Principal Change Leadership Competencies Scale*, respectively. A total of 936 teachers from 47 High Performing Secondary School in Malaysia completed the survey. Structural Equation Modelling (SEM) was applied to test the models whereas multi-group comparison method in SEM was conducted to examine the moderating effects. The result demonstrated that TCB was significantly related to TATC (.89). This implied that TCB was a strong predictor of TATC whereby TCB shapes TATC and provides the foundation for adoptive or resistance behaviors in school change. In other words, TATC is grounded in higher order concept – the change beliefs. The findings also showed that PCLC facilitated significantly the causal relationship between TCB and TATC. Obviously, PCLC was a significant moderator which can impact TCB and TATC to advance change goals whereby leadership influence is exercised through competencies that seek to accomplish functions for the change. Hence, school principals need to equip themselves with PCLC so to enhance positive TCB and TATC and ultimately getting buy-in from the teachers to the change. In relation to this, focus should be given on introducing PCLC to school principals through professional development programs. However, the moderating effects of the demographic factors such as gender, age, year of experience and school location were found statistically not significant or they were not significant moderating variables. The study offers relevant parties a lens through which they could better understand, prepare for, or enhance teacher capacity for change.

**Irit Aharon**

Ph.D. Student, University of Haifa, Israel

&

**Billie Eilam**

Professor, University of Haifa, Israel

## **Speed of Discrimination of Quantities in Different Styles of Decorated Pie Graphs**

The present study examined the effect of different methods for embedding pictorial elements within the graph display on discrimination of quantitative data presented in pie graphs. Decorated graphs are prevalent in mass media, representing and communicating quantitative information in combination with pictorial elements. However, only few studies have examined the effects of such pictorial elements on graph reading. We investigated the possible effects of pictorial decorations in pie graphs on 77 ninth graders' graph-reading. Subjects' error rates and response time (RT) for discriminating quantities were examined in a set of 24 pie graphs presented on a computer screen, and decorated in four different decorating styles. For each graph, students responded to a dual-choice question by pressing one of two assigned computer keys. Findings showed differences in error-rate and RT between decorating styles. The lowest measure of RT was found with regard to plain graphs, then to graphs presented on background pictures, graphs with an adjacent picture on their side, and the highest measure with regard to graphs with decorated indicators. In addition, the expected effect of wedge size-difference on RT was significant with regard to plain graphs only with no significant gain due to a larger wedge size-difference in the other three decorating styles. It is suggested that decorative elements change students' focus of attention. Thus, differences in RT due to variations of style may imply alterations in the perceptual processes required and the time needed for their enactment. These findings emphasize the role of decorating style in reading decorated graphs. Hence they bear direct implications for the design of pie graphs.

**Badr Alharbi**

Ph.D. Student, University of Exeter, U.K.

## **Islamic Religious Education to Citizenship Education in Elementary Schools in Saudi Arabia**

This empirical study endeavours to shed light on the ability of Islamic Religious Education to deliver Citizenship Education in elementary schools (pupils aged 13 to 15) in Saudi Arabia. The aims of the study are to explore teachers' and students' perceptions of the knowledge, skills, values and attitudes that Saudi citizens need in the 21<sup>st</sup> century. As part of this, it investigates the views of Social Studies and Islamic Religious Education teachers and students with a view to understanding where in the curriculum they think Citizenship Education should best occur. The study identifies and explores the challenges and opportunities of including Citizenship Education within Islamic Religious Education and Social Studies.

The study employed an open-ended questionnaire completed by over 266 students, and 20 Islamic Religious Education and 20 Social Studies teachers. Semi-structured interviews were also undertaken with nine students, and nine Islamic Religious Education and nine Social Studies teachers.

The findings from this study indicate that participants linked many of the knowledge components, skills, values and attitudes associated with Saudi citizenship to the Islamic religion. Responses from the participants indicate that students' voices are absent in school, as they are anxious about expressing their opinions and believe their sole purpose for coming to school is to acquire knowledge. In addition, this study provides evidence of different views amongst the participants that reflect current tensions in Saudi Arabia regarding tolerance, outside influences, faith and extremism.

The study argues that, as it is currently taught, Citizenship Education in Saudi Arabia can be perceived as limited in comparison to Western conceptions of Citizenship Education, and that it is not meeting the needs of future Saudi citizens. The study proposes that Saudi Arabia needs to change its education system to keep pace with change in the wider world and within Saudi society.

**Asmiaty Amat**

Associate Professor, Universiti Malaysia Sabah, Malaysia

**Lokman Abdul Samad**

Universiti Malaysia Sabah, Malaysia

**Yasmin Oiin Bh**

Universiti Malaysia Sabah, Malaysia

&

**Aishah Tamby Omar**

Universiti Malaysia Sabah, Malaysia

### **Creative Writing Course in Liberal Studies: Implementation and Implications**

The Centre for the Promotion of Knowledge and Language Learning (PPIB), UMS was founded to offer liberal studies courses in UMS. Other than the three compulsory undergraduate courses, that are Ethnic Relations, Entrepreneurship Acculturation, and Islamic and Asian Civilization (TITAS), the Centre also offers elective courses in the Liberal Studies Cluster. This Cluster is further divided into three main groups, that are Effective Communication and Career Skills (UC), Critical Thinking and Malaysian Ethos (UE) and Current Malaysian and International Issues (UK). A variety of courses are offered to allow students to choose from. One of the courses offered within the Liberal Studies Cluster is the Creative Writing course. The objective of this course is to expose students to creative writing skills. This course is offered to all UMS students except students from the Arts programmes in the Faculty of Humanities, Arts and Heritage. It is taught by only one lecturer; students are divided into three sections with each section consisting of 60 students. The expected outcome of this course is that students should be able to write and to use those skills as part of their career. Given the short duration, students are only taught writing for literature, with a focus on writing short stories, poems and drama scripts. Students will be guided and are expected to produce their own works. They are also given a chance to work in groups to produce a drama in the form of a short video. This study focus on how the course was conducted, its challenges and implications on students and the lecturer teaching the course. This short term course is beneficial particularly to science stream students. However one lecturer teaching in multiple sessions and the high student numbers cause burden to the lecturer and give unequal learning experience to the students.

**Maureen Andrade**

Associate Vice President, Utah Valley University, USA

## **Online Distance English Language Learning: A Model for Success**

Learning is a social process involving guidance and collaboration (Vygotsky, 1978). The goal of this process is to help learners progress from current to potential levels of knowledge or skill. The latter occurs as learners develop responsibility for their learning and increased capacity for autonomy, or choice in what, where, and how to learn. To enable this process, and increase learner success in distance English language learning contexts, a course design model was developed. The model is based on three theories: transactional distance (Moore, 1972, 2013), language acquisition (Nation, 2001), and self-regulated learning (SRL) (Zimmerman & Risemberg, 1997). The aim of the model is to develop self-regulated distance English language learners who can apply effective learning strategies to increase their linguistic proficiency.

Transactional distance between the learner and teacher varies with structure and dialogue (Moore, 1972, 2013). When levels of structure and dialogue are high, autonomy, or choice regarding study materials and methods of learning, is low. This situation reflects Vygotsky's zone of proximal development in which learners collaborate with their teacher and peers to achieve higher levels of learning. When structure and dialogue are low, learner autonomy is high. Learners possess the ability to make appropriate choices independently. This is conducive to success in a distance course in which the learner and teacher are separated; it also supports language acquisition in that learners recognize their strengths and weaknesses and can identify appropriate strategies for improvement.

In the English language distance course, structure consists of pre-prepared course materials—links to course components, calendars and assignment due dates, readings, instructions, and media presentations. Dialogue involves teacher and student interactions, and occurs through assignment feedback, e-mail, discussion boards, and technology-mediated real-time one-on-one tutoring. This aspect of the course provides the interactivity and communicative practice necessary to language acquisition. As students engage in the course, and specifically the language learning tasks and SRL activities, they become more responsible for their learning and need less structure. Thus, their capacity for autonomy is increased. Teacher dialogue, or feedback, guides the learner to facilitate language learning and SRL development. Because English language learners may be culturally accustomed to

teacher-directed learning, which encourages dependence, rather than to self-evaluation and independent decision-making which is important in distance learning contexts, this model is critical to learner success.

The design model considers learners' entering levels of language proficiency, self-regulation, and commitment. Goals are two-fold—to increase language proficiency and self-regulation. Using a diagnostic instrument, learners identify their strengths and weaknesses. They set goals and select from a choice of SRL activities, called "Manage Your Learning," which are based on the six dimensions of SRL—motive, methods, time, physical environment, social environment, and performance. The latter involves learner midterm and final self-reflection on goals. Learners have autonomy, or choice, as they determine which activities will help them become better language learners. The activities support English language reading, writing, listening, and speaking development as they simultaneously assist SRL development. The outcome is increased language proficiency, improved SRL behaviors, and persistence. The model guides both the design/development phase and the delivery/teaching phase.

This presentation introduces the design model, showcases examples of "Manage Your Learning" activities, discusses their effectiveness, and demonstrates how to integrate content and SRL instruction to achieve course outcomes. The presenter will invite discussion related to the course design model, learning activities, and the efficacy of the approach.

**Khaled Asad**

Lecturer, Ben-Gurion University of the Negev, Israel

## **Teaching Computer Science and Mathematics to Young Children in the Context of Image Processing: Cognitive and Affective Aspects**

Today's youth are using advanced technological devices extensively such as computers, smart phones and digital cameras. These technological devices are based on scientific, technological and mathematical knowledge. Educators increasingly support the notion of '*contextual learning*', which is about connecting the school curriculum to students' daily lives, and '*interdisciplinary learning*', such as integrating the study of science, technology and mathematics. How can teachers take advantage of the extensive use of modern pre-mentioned technological devices by youth in order to attract students to learn computer science and mathematics?

The proposed presentation will describe a research aimed at examining how teaching a knowledge-intensive, innovative and interdisciplinary course on **computer image processing**, might influence young students cognitively and effectively.

The research included the development, implementation and evaluation of a course comprise of 15 sessions, total of 30 hours, taught to eight Arab junior-high school groups in central Israel. The program includes learning basic topics such as computer image representation, image pixels, black-and-white and color images, and advanced topics such as the use of mathematical operations to change image brightness and contrast, remove noise from an image by using spatial filtering, and the topic of facial recognition.

The research included developing an instructional model consisting of four phases: teaching theoretical principles by the teacher; manual and computerized practice by students at a basic level; implementing challenging tasks using advanced software; and projects. Data were collected by means of exams, attitude questionnaires, analysis of student projects and class observations.

In addition, the presentation will report the results of the research such as the students' achievements in learning image processing and related mathematical concepts, and the impact on student interest and motivation to learn computer science and mathematics.

**Hernan Astudillo**

Professor, Universidad de Concepcion, Chile

**Claudio A. Faundez**

Professor, Universidad de Concepcion, Chile

**Patricio G. Salgado**

Professor, Universidad de Concepcion, Chile

&

**Jose Sanchez**

Professor, Universidad de Concepcion, Chile

## **Agent-Based Model for the Analysis of Teaching, Learning and Assessment Processes in the Classroom**

We present an agent-based model that uses simple rules of interaction between agents to represent the dynamics of the teaching-learning-assessment process that takes place in a classroom, which is regarded as a dynamic system. Although the simulator considers a very restricted number of characteristics held by students in a real classroom, it allows us to study and analyze the behavior of the action of teaching strategies in an idealized classroom. It is considered that the agents are identical in capabilities and skills for learning, but are subject to a discipline of individual work with random concentration levels. According to Neurosciences, this condition represents a natural condition inherent to the dynamics of the human brain. Agents are assessed periodically, process that allows them to be scored and ranked. By incorporating elements that lie in the field of cultural diversity for learning capital into the model of interaction between agents, the results show that cultural disadvantages between agents, which should represent the students of the educational system, necessarily lead to an intellectual human capital segregation in the classroom.

**Dilara Bakan Kalaycioglu**

Director, Test Preparation Department, OSYM, Turkey

### **Predicting Mathematics Achievement: Results from England, Greece and Turkey**

The purpose of this study is to determine how students' socioeconomic status, mathematics self-efficacy and mathematics anxiety are associated with mathematics achievement. The sample group of the study consisted of 4402 students from England, Greece and Turkey. PISA 2012 Mathematics Achievement Test and the Student Questionnaire's mathematics self-efficacy, and anxiety items were used. Exploratory and confirmatory factor analyses were employed for each country using math self-efficacy and math anxiety variables to evaluate construct validity of the measurement model. To show how much variance on student mathematics achievement can be attributed to selected factors, for each country separate Structural Equation Models are examined. Finally, to compare path coefficients of countries' multi-group structural equation modeling are determined. According to the results obtained, for all the three countries, among other factors math self-efficacy has the strongest effect on mathematics achievement. The association between mathematics self-efficacy and mathematics achievement is the highest for England. Mathematics anxiety is negatively related to mathematics achievement for all countries but the highest mathematics anxiety mean value belongs to Turkey. When the impact of mathematics anxiety on mathematics achievement is considered, the highest impact was observed for Greece.

**Barbara Bales**

Associate Professor and Chair, Department of Curriculum and  
Instruction, Director, Center for New and Professional Educators,  
University of Wisconsin – Milwaukee, USA

**Restructuring Teacher Education in the United States:  
Finding the Tipping Point**

In the United States, as public demands for quality teachers have escalated, there has been a corresponding increase in national policy efforts to tie the standards of student success to teacher preparation, licensing, and evaluation. This conceptual paper examines how national authorities used specific policy tools to usurp the state's responsibility to ensure quality teaching practices in local schools. A discussion of policy problems and instruments grounds the analysis of teacher education policy activity since 1992. The "tipping point" theory is used to understand how this change in authority occurred. Recommendations for future teacher education research and policy-making are shared.

**Martin Bascope**

Professor, Pontificia Universidad Catolica de Chile, Chile

&

**Natalia Canihuan**

Researcher, Independent Anthropologist, Chile

## **The Incorporation of Local Knowledge for Teaching and Learning Sciences in Primary Schools**

In the recent years there has been a lot of academic discussion regarding the importance of scientific literacy and scientific skills both for its importance as basic abilities to generate new knowledge and also for the children to be able to contribute as citizens to the public debate in scientific issues (Bybee, 1997; Driver, Newton, Osborne, & others, 2000; Hodson, 2003; Saunders & Rennie, 2013). To facilitate the comprehension of the scientific perspectives, some authors has been looking on how to incorporate local or indigenous worldviews to the scientific paradigm, both to help teachers to put science into context and also to challenge and reinforce scientific knowledge (Lee, Yen, & Aikenhead, 2012; Snively & Corsiglia, 2001).

Since 2013 an innovative project call "Experimento +" for the improvement of science's teaching and learning, has been coordinated by the Campus Villarrica of the "Pontificia Universidad Católica de Chile" (PUC), located in the south of Chile and surrounded by many rural schools with a great influence of the Mapuche culture, the most important indigenous population of the country. The main objective of the project is to improve scientific literacy and to promote "inquiry based learning" in primary students from disadvantages schools, by supporting the schools, training teachers and adding experimental activities to the teacher's planning.

At the beginning, the science activities offered by the program were the same proposed by the creators of the material in Germany. During the process of expansion of the project, a claim for the adaptation of the proposed activities frequently arose due to the teachers' difficulties to connect the science contents with the everyday life of their students. Having this in mind we started a qualitative study to explore the principal science's topics and themes related with local knowledge to incorporate traditional activities, labours and arts to the science lessons.

The present work summarizes a research made during 2014 with a group of 6 schools with high proportion of indigenous students. The methodology proposed incorporates in-depth interviews with science and indigenous language teachers, class observations and focus groups with parents and the schools' communities. We classified the emerging topics to achieve two objectives: 1) a model with a set of dimensions of

traditional knowledge that contribute to generate scientific skills, and 2) a curricular adaptation to integrate new activities based on local worldviews to the science lessons.

The results show a great coherence between local knowledge and “inquiry based learning” due to its relation with oral traditions, where the transmission of knowledge was basically learning by doing. Along with the research work we found six dimensions that may be useful not only in the particular context of Chile but in many other countries, to incorporate local knowledge to science teaching. We listed them as follows: Time measuring and worldviews, chemical background of handicrafts, arts and gastronomy, traditional medicine, climate knowledge and native flora and fauna. Then we opened a discussion on each field and propose activities for the curricular adaptation.

Our work gives research based information regarding the importance of local knowledge for science education, especially in environmental and health issues, it also contributes to the incorporation of non-conventional knowledge to the schools helping the integration of foreign cultures to the scholar system and maintaining traditional practices/work/arts as a source of valuable knowledge to be learned in the schools.

**Joanne Batey**

Senior Lecturer, The University of Winchester, U.K.

**Phil Birch**

Associate Lecturer, University of Chichester, U.K.

&

**John Batten**

Senior Lecturer, The University of Winchester, U.K.

## **The Influence of Student Gender on the Assessment of Undergraduate Student Work**

The aim of this present study was to investigate the influence of perceived student gender on the feedback given to undergraduate student work. Participants (n = 12) were lecturers in Higher Education (HE) and were required to mark two undergraduate student essays. The first student essay that all participants marked was the control essay. Participants then marked the target essay. Although participants marked the same target essay, half of the participants (n = 6) were informed that the student essay was written by Natasha Brown (female student) while the remaining participants were informed that it was written by James Smith (male student). In-text and end-of-text feedback was qualitatively analysed across six dimensions: academic style of writing; criticality; structure, fluency and cohesion; sources used; understanding/knowledge of the subject; and other. Analysis of feedback for both the control and target essay revealed no discernible differences in the number of comments (strengths of the essay, areas for improvement) made and the content and presentation of these comments between the two groups. Pedagogical implications pertaining to the potential impact of anonymous marking on feedback processes are also discussed.

**John Batten**

Lecturer, The University of Winchester, U.K.

&

**Joanne Batey**

Senior Lecturer, The University of Winchester, U.K.

## **The Influence of Lecturer Reputation on the Behavioural Responses of Students**

**Objective:** The interpersonal expectancies adopted between lecturer and student have an important influence on the way in which their relationship develops. This study sought to provide a field-based examination of reputation-based expectancies on students' behavioural responses toward a lecturer.

**Design:** A between-groups experimental design was employed within a field-based setting.

**Method:** Students ( $n = 21$ ) were randomly assigned to one of three experimental groups (i.e., experienced reputation, inexperienced reputation, no reputation) prior to taking part in an imagery workshop delivered by an unknown lecturer. Students' gaze direction and fixation frequency relative to the location of the lecturer were recorded as indicators of attention.

**Results:** Multivariate analysis of variance revealed a significant between-group difference for indicators of student attention. Although the follow-up univariate analyses of variance with bonferroni corrections revealed no significant between-group differences for gaze direction or fixation frequency, students in the experienced reputation group generally gazed toward the lecturer for longer, while students in the inexperienced reputation group exhibited greater fixation frequency on the lecturer.

**Conclusions:** These findings provide somewhat contradictory evidence with regards to the long-standing effects of reputation-based expectancies during interpersonal interactions between students and a lecturer. However, the limitations associated with this study and the implications for further field-based research in this context will also be discussed.

**Marcela Batistic Zorec**

Associate Professor, University of Ljubljana, Slovenia

## **The Competent Child: Alternatives in Preschool Education**

In his interview, Peter Moss (2011) says that nowadays he is especially interested in the question how schools can benefit from many interesting alternatives in preschool education. In the postmodern times, it is impossible to seek for the universal truths in education, which would be constant and valid for all times and places. So the bases for our decision-making in education is the question how we – the adults, see “the child” and “the childhood”. Moss thinks that our perception of the child is an essentially ethical and political issue; the social construction of childhood influences the politics and practices in the field of education.

In my presentation, I will start from the perception of the child as powerless and help needing individual, an “empty bottle” in which we “pour” the knowledge. An alternative to this perception is the competent child, especially stressed in Reggio Emilia approach. In the research and education project on Faculty of Education at the University of Ljubljana (2009–2013), we encouraged about 200 Slovene teachers to introduce the Reggio Emilia elements (participation and listening to children, the advantage of learning before teaching, hundred languages of children, project work in small groups, documentation...), to their preschool practice.

I will illustrate the idea of the competent child and children’s participation in preschool with the remarkable project of children and teachers from the Globoko Preschool, made during the above mentioned research project. The children have decided to choose cartoons as their theme of interest. Their teachers knew that children wanted primarily to watch cartoons, but they were also aware that they are responsible to lead children to gain new knowledge by leading them from known to unknown. They were aware, that they should not interfere with creative process and that result must be completely in hands of the children, therefore they acted as facilitators (Vygotsky’s scaffolding), and were open to learn together with children. In process, children decided to create their own cartoon, but they did not know how. They needed help, so they wrote a letter to the professional cartoonist. In creative process they prepared the cartoon story and drawn hundreds of images. They even asked older children from the elementary school for help, who made hundreds of photos to make this project a reality. The result was impressive, a 5 minute cartoon made by stop motion technique.

Through the theoretical explanation of this practical project, my aim is to show that such experiences can be used as a motivation and challenge to embrace the idea of the competent child and children's participation, which can fundamentally change teachers' views and practices in preschool or school.

**Rachid Benmoussa**  
Professor, Cadi Ayyad University, Morocco

## **An Approach for the Identification of Misalignment in ERP Implementation**

In the current context of fierce competition, the information systems of companies are increasingly based on “off-the-shelf products” projects such as ERP - Enterprise Resource Planning – systems. Despite they can generate potential benefits, these projects also entail risk. Many ERP integration projects fail because the system is not aligned to the organization’s requirements. This paper proposes an approach for the evaluation of alignment between the company’s real needs and the ERP standard functionalities. It formalized criteria and associated metrics to quantify the extent of the fit between the business and the ERP system. With this approach, we can more easily and finely determine the different alignment and misalignment situations and the decisions that the company can envisage for each situation. Thus, our research contributes to bring practical solutions to the problem of misalignment identification in ERP implementation. The application of the approach is explored through a case study.

**Stepan Bilan**

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Ukraine

**Mykola Bilan**

Head of Control and Dispatch Center, "Transnistrian Radio and  
Television Center" OJSC, Moldova

&

**Sergii Bilan**

Technical Lead, Win-Interactive LLC, Ukraine

**Application of Methods of Organization of Cellular  
Automata to Implement Devices of Forming Pseudorandom  
Sequences**

Pseudo-random sequences generators (PRSG) are used in many branches of science and technology. Particular application they have received in the communications industry in the monitoring of basic parameters of transmission systems. Also, they are one of the main components of modern communication systems in the aspect of data security, which are transmitted. Currently GPRS are organized by many methods and approaches. These include the mathematical and hardware approaches. Mathematical methods are implemented on based of structure of a mathematical model, which allows obtaining non-deterministic sequence of numbers. Mathematical methods are implemented as software as well as hardware. Hardware approaches aimed at circuit implementation of the PRSG. At the moment, a great GPRS development by using cellular automata (CA) obtained. CA make it possible on the each step of the formation of number unpredictably generate a random number at the expense of neighborhood organizations and the transition function. In modern literature, the use of CA for the information security is considered promising. Problems are considered of organization and construction of the CA for the implementation of devices forming the pseudo-random bit sequences and numbers. The paper analyzes of the modern generators of pseudo-random sequences formation. The proposed PRSG are based on the initial random formation of the state of CA and the arbitrary choice of the initial cells. Performed the choice and installation of the neighborhood and a function, which allow forming an excited state of the cells in the next time cycle. Besides, the CA generates additional pseudorandom sequence of bits which take part in the formation of the excited state of each cell. The analysis of the impact of different forms of organization of the neighboring cells on the result of formation of a pseudo-random sequence was performed. Programs

that simulate the operation of CA have been developed. Experimental analysis was carried out to identify the repetitive cycles. It is shown that the constant change of the state of CA cells leads to changes in work of the PRSG. Using the CA has allowed to reduce the amount of feedbacks. On the basis of such an approach been developed variants of schemes CA cells that implement the PRSG. The resulting circuit engineering solutions and computer models made it possible to implement them in modern FPGAs. Based on the results been developed means of streaming encryption and decryption of digital messages in data transmission systems. In addition, the high effect of such PRSG takes place in systems using a steganographic security with the containers, which are the images.

**Perry Binder**

Clinical Associate Professor, Georgia State University, USA

### **Game of Tweets - Leveraging Social Media to Gamify Out-of-Class Activities**

In an effort to make out-of-classroom activities dynamic, the author turned to his students' preferred mode of communication – social media. Fluid collaboration among these students and the professor has become essential for re-creating classroom synergy, as students are sensitized to becoming ethical digital citizens in virtual hybrid class sessions. The “gamification” of courses (applying game-design thinking to non-game applications in an attempt to make the latter more fun), may be the key to replicating in-class student engagement. This paper addresses gamification techniques used in an Internet Law undergraduate course, as participants earned points by competing with fellow students to discover and assess appropriate and inappropriate content found on social networks. The contest created by the author was linked to an extra credit point system. Using Twitter, students posted original tweets, and then vied for the most Twitter “followers” and to influence the most Twitter users worldwide, given the number of re-tweets, favorites, and replies posted to their tweets. Further, this paper discusses the challenges faced in gamifying a course, including: the level of incentives to maximize full participation; the unfair advantage certain students may have when others are not adept at using social media; and the ubiquitous privacy implications of social media usage.

**Said Boumghar**  
Lecturer, ENS Kouba Alger, Algeria

## **The Competency-Based Approach in a Traditional Educational Context**

During the last decade, the competency-based approach (CBA) has entered the Algerian education world. New physics programs have been drawn up with a new teaching-learning approach, focused on the acquisition of knowledge but also on the mastery of competence. An investigation into the feasibility of the physics program made to the teachers concerned, enabled us to achieve some results tend to confirm certain assumptions as to the application of the CBA, in light of the criteria and requirements recognized in the field: readability, pedagogical approach, defined competencies, proposed activities, efficiency and feasibility in relation to the training of teachers and teaching resources mobilized etc. From our survey results, it appears that focus on the only change programs to improve our education system can be a impasse; because it appears that the main problems in the acquisition are initially in the effective implementation of the programs (in terms of courses, practical work, programmed in time), training of teachers and resources used, as their content.

**Daniel Fernando Bovolenta Ovigli**

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**Ariane Baffa Lourenco**

Post-Ph.D., University of Sao Paulo, Brazil

&

**Pedro Donizete Colombo Junior**

Professor, Federal University of Triangulo Mineiro, Brazil

## **Public Policies for Access to Higher Education in Brazil: Majors in Natural Sciences and Mathematics in Rural Education Undergraduate Courses**

Teacher education for rural education turns out to be a public policy that has taken shape since the last decade in Brazil, especially after the rules that established operational guidelines for basic education in rural areas. In 2006, the first offerings of undergraduate degrees in rural education with majors in Natural Sciences and Mathematics took place in four different states of the country, in regional areas that have historically had an insufficient number of teachers to meet these demands. More recently, in 2010, a presidential decree introduced a national education policy and the Brazilian National Education Program in Agrarian Reform. These undergraduate majors have a different proposal, since they train teachers by areas of knowledge and not by disciplines, taking an innovative curriculum design. Pedagogy of Alternation (university-time and community-time) is employed in this sort of courses because a significant proportion of their undergraduates develop their activities in rural schools. A public announcement released by the Ministry of Education in 2012, called public universities for submitting their proposals for new courses, showing their demands and potentiality for offering them. Considering that they are recent, there is a limited number of academic productions about these majors in rural education undergraduate courses. Given the situation outlined above, the current paper carries out a study on the characteristics and theoretical frameworks that guide teacher education to work in rural areas - majors in Natural Sciences and Mathematics offered by Brazilian federal public institutions benefiting from the 2012 project. Empirical material was built through a literature review and an analysis of some pedagogical projects, electronically available, relating to ongoing courses was conducted. Importantly, 44 university proposals were approved in the context of that public announcement and include higher education institutions located in all federation states, except for São Paulo. As for the dynamic curriculum, it appears that the pedagogical projects emphasize educational processes organized

through the complex system (PISTRAK, 2003), pointing to possibilities of changing the organization of the traditional work in the teacher education curriculums. In this sense, the main issue is how to link school life, not just its speech, to a process of social transformation through the natural sciences and mathematics, making it a place of education of the people, so that they can see themselves as subjects that are able to build a new society. The analyzed projects explicit linkages and relationships between: (i) human beings and their relationship with earth/nature, according to majors in Natural Sciences and Mathematics, (ii) human beings and their links to work and technology in the countryside, (iii) human beings and relationships with society, which expresses the struggle for land, and (iv) education and human beings, considering that this is a teacher education course. The pedagogical projects also express the following training profile: a) Enabling teachers for a multidisciplinary teaching by teaching natural sciences and/or mathematics for managing processes of primary and secondary education in rural schools; b) Training educators to work in rural primary and secondary education schools, so that they are able to manage educational processes and develop pedagogical strategies aimed at teaching autonomous and creative subjects, capable of building up solutions for issues about their reality, linked to building sustainable development projects for the countryside and their country; c) Ensuring a specific pedagogical elaboration/reflection on labor education, on technical, technological and scientific education to be developed especially in secondary school as well as in the last grades of primary education; d) Developing training strategies for a multidisciplinary teaching in curriculum organization by areas of knowledge in rural schools; e) Helping with the construction of alternatives for the pedagogical and school work organization that enable the spread of primary and secondary education in/of the countryside, with the speed and quality required by the social dynamics in which their subjects participate, and by the historical inequality suffered by them. At last, this study aimed to render some contributions to formulate public policies in order to establish an education system that meets the needs of the course attendees, with a view to building an effective education in /of the countryside.

**Maria Bujalkova**

Head, Institute of Foreign Languages, Comenius University in  
Bratislava, Slovakia

&

**Petra Zrníková**

Lecturer, Comenius University in Bratislava, Slovakia

### **Nonverbal Communication and its Importance for the Development of Foreign Language Professional Competence in Medical and Dentistry Students**

The field of nonverbal communication and its research is known in the scientific world for several decades. Nonverbal communication in the professions in which there is direct or indirect interaction among people can be very specific, e. g. for the people working in business, marketing and management of human resources, mass media, but also for medical professionals.

It is German for professional purposes, nonverbal communication in it, intercultural and professional competence as well as sensitization of customs and traditions in different language society, which are paid attention to in this paper. One of the activation forms for verbal and nonverbal communication being used in teaching German language for specific purposes are presentations of medical topics. They represent synchronization of speech and nonverbal behaviour.

Analysis of nonverbal performance in foreign language showed that students were not aware of the importance of nonverbal communication. We consider necessary to include the professional training of elements of nonverbal behaviour in foreign language teaching.

**Nize Maria Campos Pellanda**  
Professor, Universidade de Santa Cruz do Sul, Brazil

## **The Technical Object as a Cognition/Subjectivity Tool**

This paper deals with the description of a survey conducted with two children diagnosed with ASD (Autism Spectrum Disorder) in view of the complexity that does not separate the different dimensions of reality. Thus, we focus on technological coupling human / technical object supporting the assumption that a technical object, at resonating with the cognitive-affective system of a human being, may enhance the processes that are there involved. We opted for touch technology (iPad) for integrating haptic system in our approach because the touchscreen can trigger important neurophysiological mechanisms. From there we developed our central research question: By creating a digital environment for individuals with ASD where the axis is the use of the iPad, we signalize some deeply significant cognitive and subjective transformations. How can we explain such self-organizing emergencies in terms of complexification of the subjects in provocative environment? We decided to apply this type of approach that mobilizes autistic children trying to break with traditional and hegemonic treatments used for this type of syndrome that use behavioral base reinforcements, repetitions of meaningless stimuli for the child and therefore not respecting the potential of these autopoietic subjects. Not because they are carriers of a genetic and severe disease that we will not bet in the self-organization of these beings. In this sense, we also count recent studies of neuroplasticity. For this approach, we design a theoretical framework with assumptions born in the cybernetic movement, specifically the studies of H. Maturana and F. Varela (Theory of Biology of Cognition) and Rene Atlan (Theory of complexity from noise). The results were encouraging showing evidence such as these children begin to talk, to communicate better with family and are starting the process of school inclusion. We used a complex methodology consistent with our theoretical stance adopting not categories that fix the reality and essence, but dynamic markers that signalize.

We used a complex methodology consistent with our theoretical stance adopting dynamic markers of emergent phenomenon during the monitoring of process, instead of “categories” that fix essence and reality.

**Celso Dal Re Carneiro**

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**Jose Roberto Serra Martins**

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**Pedro Wagner Goncalves**

Professor, University of Campinas, Brazil

&

**Allan Eduardo Cano**

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## **Earth System Science as a Critical Knowledge for Educating Geographers and Other Professionals to Interact with Earth**

Humans actively participate of the Earth System and interact with other Earth spheres, especially the biosphere. This paper intends to evaluate the relevance of Earth System Science (ESS) in undergraduate courses of Geography (bachelor and licenciature degrees). The conception has been conveyed in ESS disciplines at the University of Campinas, Unicamp, Brazil, introducing a holistic view of the knowledge, while stimulating reflections about limits of the areas of study. The contemporary discussion about environmental consequences of human actions and possible effects of climate change that often permeate the news are examples of the affinities between spatial analysis of geography with the integrative design of ESS. A broad collection of articles, reports and books retrieved from the specialized literature reveals the great potential of ESS approach to enhance the tools available for different professionals for analyzing the geographic space and to observe the complex relationship between nature and man. The society, or the world system, is increasingly marked by political and economic concepts and ideas. The integrated view of ESS, typically linked to the investigation of physical and human processes, helps to understand phenomena which occur at various spatial and temporal scales and contributes to build a vision of the whole and the parts of the contemporary world. Analogies with the Gaia hypothesis suggest to be useful to take into account in the ESS constructions and the social, political and economic relationships inherent to human activities. In conclusion, it seems urgent to review the Brazilian higher education curricula of Geography, as well as other careers as biology and environmental engineering, for instance, seeking to expand the training of the undergraduates with strong background of Geosciences. This proposal may have a multiplication effect both for scientific research and for a better performance of teaching in basic education.

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## **Brain Drain, Mobility and Emigration of High Skilled Professionals from Portugal to Europe**

Education has generally been viewed for decades, as an effective instrument for social mobility and has become an easy way to proper insertion in the labor market. However, in Portugal, since the late 2010s this situation is the reverse and the country faces an increasing number of university graduates who do not get any recognition by the market and which thickens the ranks of unemployed. Simultaneously, many thousands of higher education graduates, including doctoral ones, seek emigration in the achievement of their objectives as to have adequate work according to their academic qualification, leading to an exodus of labor, highly skilled.

In these circumstances it is understandable concerns of young people about their future. What to study? Deciding what to study, humanities, technology, behavioral sciences, management sciences or life sciences, etc. is a complex process which influences the way young people enter

the labor market. So, increasingly, the student must ask questions about his future in terms of training: Which scientific areas are more employable? Searching for work in the country or abroad?

However, even a good rate is not a guarantee of employment, particularly in a depressed economic situation such as that Portugal currently lives. In these circumstances, seek employment abroad has been an alternative for young graduates. Search for a job thus appears as one of the explanatory reasons for the brain drain from the country, although there are certainly other reasons.

To understand this phenomenon is the aim of the research project that the authors are conducting concerning brain drain. This research aims to study the various types of mobility of highly qualified Portuguese professionals to Europe in the last decade considering that it is recognized in international studies published over the past years that Portugal is one of the European countries where the brain drain is more accentuated in the last decade. The proportion of workers with higher academic degree who emigrated in recent years is estimated at 19.5%.

The research strategy is suitable to the characteristics of an exploratory study that allows enunciating questions and hypotheses that can be studied in later steps of the research. Articulating an extensive research with an in-depth analysis we seek to identify the subjectivity of the direct actors of emigration in some of its main working contexts. We use a mixed strategy which makes use of multilateral technical quantitative and qualitative data collection: questionnaire surveys; life stories; and interviews with focus groups. Using a multiple case methodology we will describe and compare the circumstances, the modalities and the characteristics of the mobility of two types of migration of high skilled Portuguese individuals in Europe: a) long-term migration to a European country for work in primary or secondary segment of the employment system; b) temporary or commuting mobility through European networks of science, production, services or culture.

Our hypothesis consist in assuming that the different migration flows as well as the contexts, projects, the paths of life and how biographical expectations are constructed and therefore can be understood by the concurrent models. Case studies of each of these groups will test the research hypotheses presented in the literature in a comparative way:

a) The hypothesis of brain drain. Since human capital is not made profitable in the same society or country where it was generated the brain drain results in a subsidy to the rich countries because the growth of most developed countries also stems from the concentration of human capital;

b) The hypothesis of a beneficial brain drain. Once some empirical studies proxying investments in human capital by the growth rate of the proportion of tertiary educated individuals find that the brain drain rate measured in the base period exerts a positive effect on the rate of change of the previous stock of human capital, interpreted as a brain gain. On the contrary, modeling anticipatory expectation-building and accounting for possible convergence forces in the accumulation process of human capital, reveal a strong negative effect of the occupation specific emigration rates on the sending countries employment shares, which suggests an inexistent brain gain compared to the brain drain;

c) The hypothesis of the cross-fertilization movement of elites. Since the international mobility of skilled human resources is often transitory and takes on characteristics of exchange of knowledge, skills, and temporary projects, this circular process is beneficial for both developed countries and developing countries;

d) The hypothesis of brain circulation by creating networks. The network formed by scientific Diasporas and business has frequently sought to use the knowledge and skills acquired by scientists and other expatriate professionals in the development of the country of origin;

e) The hypothesis of latent brain drain due to the mobility training. As mobility training, or for graduate studies or post-graduates, worsened in the last decade, the outputs to study abroad, with or without grants, originally planned as temporary, may become permanent due to the insertion in the labor market of developed countries or less affected by unemployment of young workers (Pizarro, 2005). However, there is also evidence that a period of study abroad, followed by a work experience in the destination country can become a medium-term benefit on the return.

The selection of the cases studies follows the intersection of four main structuring principles: a) Time characteristics of mobility: permanent or temporary, long term or transitory; b) Social place in the employment system: primary segment or secondary segment of the labour market; c) Functional profile in the employment system: academic and scientist, other highly skilled professions; d) Type of mobility: direct (after having entered in the employment system of the sending country), indirect or latent (after a period of study in the receiving country).

Based on official data on unemployment of graduates, including by scientific areas and ages, and the highly skilled emigration, this presentation questions the employability of different scientific areas of higher education and discuss the educational and economic policies that generate a real brain drain in Portugal in the last decade.

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&

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## **Thinking about MOOCs**

Massive Open Online Courses started quickly in top western universities. These free online courses from famous universities push down the walls of traditional classroom and bring great impact to education. The paper discussed the changes MOOCs bring, including learners changed from local small groups to global numerous learners, teaching faculty changed from individual teachers to collaborative teaching teams. Then the paper put forward the nature of MOOCs and gave some general consideration of CNMOOC platform which is under developing as MOOCs, big data and mobile technologies are on the rise.

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**PASS with the 4 C's:  
Connect, Communicate, Collaborate & Cooperate**

The purpose of this project is to provide compelling information, along with effective strategies in order to be able to connect, communicate, cooperate, and collaborate to better understand the role physical activity plays in education. We know that being physically active is important in combating hypokinetic diseases and certain types of cancer (United States Department of Health and Human Services USDHHS, 1996-present). We can now add to the long list of benefits of physical activity; increased cognition, focus, and overall readiness to learn. According to Ratey, (2008) exercise is like "Miracle Grow" for the brain (AAHPERD, Keynote address, San Diego, 2011). Researchers suggest that what we now call thinking is really evolutionary, internalization of movement and that play helps shape the brain, opens imagination and invigorates the spirit (Blaydes, 2000; Jensen, 2000; Lengel & Kuczala, 2010). This information is really not new, it is old news that is being revisited by leaders in the field of education and neuroscience, and rightfully so. We are finally coming together to shed new light on an age old story (Groppel, AAHPERD, San Diego, 2011)! It is the intent of these authors to help all educators understand and be able to feel comfortable using the powerful tool of movement to enhance students' physical, emotional, spiritual, and cognitive fitness.

**Laura Coetzer**

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### **Out-of-Field Education: The Phenomenon as Encountered in Rural Schools in South Africa**

Teachers elect to study in a specific field or area, but after their studies have been completed, there is the distinct possibility that they will be employed or instructed to serve in a field different from their studies, the so-called 'out-of-field' teaching. The phenomenon has been identified in several countries on the international stage, particularly so in the USA and in Australia. The researcher herein found very little relevant research pertaining to South Africa and even less in the rural areas to support the launch of her research that aimed at investigating the impact, extent and effect of this problem, particularly as it presented itself in secondary schools in the adjacent regions of the northern part of KwaZulu-Natal and the eastern part of Mpumalanga. A qualitative research project was then initiated in these two areas. It was a ground-breaking exercise that required the researcher to focus her attempts at determining the extent and scale of teachers who actually experienced the phenomenon and had to teach learners without the necessary qualifications. The research was based on the interpretive paradigm and for this research the social learning theory as well as the social development theory was chosen as the governing disciplines. The methodology followed in this study was based on open-ended interviews, data analysis and observation constituting the critical inputs. The population sample herein was selected from 10 different schools in the Mpumalanga and KwaZulu-Natal provinces. Overall 40 participants, including 20 teachers, HODs and principals, contributed to the research. The findings confirmed the research purpose aimed at exploring the extent of the phenomenon of the out-of-field teacher in the designated rural areas, a secondary aim was to understand the impact that out-of-field teaching had on teachers' perceptions and experiences and then to attempt to determine the special needs that the out-of-field teachers had, having been subjected to this phenomenon. An inescapable consequence hereof presented itself in the format of the intangible requirement to evaluate the impact that out-of-field teaching had on the teacher's self-esteem and confidence. The research thus also required a heightened degree of sensitivity on the part of the researcher. In the final analysis it transpired that the researcher could make factual recommendations, based on clear and substantial evidence, that a fundamental realignment of the teaching profession might very well enhance the improvement of the quality of education on provincial level and, perhaps, even on national level. It is suggested

that a system be devised in terms of which teachers should be licensed, per subject, in order to permit them to teach at secondary schools. The technical aspects of this suggestion will have to be approved and managed by the Department of Basic Education of South Africa.

**Jan Collie**

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## **Tracing Forensic Artifacts from USB-Bound Computing Environments on Windows Hosts**

This paper proposes that it is possible to extract and analyse artifacts of potential evidential interest from host systems where miniature computing environments have been run from USB connectable devices. The research discussed focuses on Windows systems and includes a comparison of the results obtained following traditional 'static' forensic data collection after conducting a range of user initiated activities. Four software products were evaluated during this research cycle, all of which could be used as anti-forensic tools - associated advertising claims that use of the software will either leave 'no trace' of user activity or 'no personal data' on a host system.

It is shown that the USB-bound environments reviewed create a number of artifacts in both live and unallocated space on Windows hosts which will remain available to the digital forensic examiner after system halt. These include multiple references to identified software and related processes as well as named user activity in Registry keys, the IconCache.db and elsewhere. Artifacts related to program use and data movements will also be retained in live memory (RAM) and it is recommended that this is captured and analysed. Where this is not possible, relevant information originally held in RAM may be written to disk on system shut down and hibernation, opening further opportunities to the analyst.

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### **Mobile Learning - Continued Success or Emerging Problems?**

There are a numerous m-learning initiatives worldwide and some of them end in a failure; however, no more guidelines to assist m-learning initiatives in sustaining an effective mobile learning. The purpose of this paper is to explore the current literature base of the factors driving mobile learning sustainability. Since there is not more research about sustainability of mobile learning, the paper reviews literature in the light of abilities “ability to address current educational needs and intent of m-learning; ability to have potential to be adopted by users; ability to maintain a certain condition indefinitely or make progress; and ability to adapt to possible changes” which define the sustainability of m-learning and were specified in the previous study. Hence, articles were searched using key terms of this definition, which are: needs, adoption, success factors, limitations, challenges, potential changes and risk of mobile learning. Some sustainability issues were handled and discussed under these titles. We can give *mobile network infrastructure, structuring of the pedagogical material, enhancement of the m-learning environment, technological and pedagogical support, security and privacy, health and safety risks, and digital inequality* issues as some examples. This research will enrich the understanding of m-learning sustainability issues and promote future research by providing some perspectives which can be discussed in following studies.

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## **Is It Possible to Meet Students' Expectations in Delivering Curricula?**

With the increasing cost of university education to most UK students has come an increasing emphasis on student satisfaction. Government ministers have referred to students as customers and this defines the university as a supplier in what is a commercial transaction.

Comparison data is compiled for KIS tables, universities are ranked in league tables and the National Student Satisfaction survey quantifies how satisfied those students who completed the survey were with their undergraduate experience.

Common practice is to assess student satisfaction for every module they take and the teaching team need to indicate what they will do to address any instances of dissatisfaction noted in the body of student feedback.

However, whilst a student may not feel happy or satisfied with a module or an entire course there is a question that could be asked as to whether they are the best people to shape any changes.

Over a five year period two linear studies were carried out. The first of these looked at student attitudes to group working. When it was seen that there was a significant level of dissatisfaction with this assessment method a further study considered what type or mixture of assessment would be preferred. These were carried out to enable changes to be based on evidence and to improve satisfaction as a result.

The actual results showed a far more complicated situation with differences between different student cohorts on a year by year comparison, differences between courses and faculties and a very wide spread of opinion within each individual course.

If student satisfaction is to be the most important measure the logical conclusion is that educational provision has to become menu-driven so that the 'customer' can make their choice as they wish. However, this will create a further set of substantial problems.

**Pauline Collins**

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### **Legal Education at a Cross Roads. The Australian Experience**

Law academics and professionals have been doing some soul searching regarding just what it is that should be taught in a law degree, given the globalising transnational corporate law firms, high rates of depression among law students and lawyers, and a changing role for lawyers in the world of dispute resolution. They are pondering just what is required and how a law degree can adequately train future lawyers. This paper draws together some of the diverse trains of thought arguing for the adoption of different directions. Drawing from the US and UK the paper predominately focuses on the Australian experience. The paper concludes by suggesting a particular path to follow that may address some of the changes and dilemmas raised.

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## **The School-Museum Partnership in Brazil: What does Research Says?**

The school community is one of the most assiduous visitors in science museums around the world. In Brazil, children and adolescents, most of the time, visit these places through school initiatives only. Researches in science education have shown that non-formal education sites, particularly science museums, are places that promote student learning and broaden the possibilities of teacher's work. When we understand education as a sociocultural process that integrates different social actors, we may see these places as intrinsically educational institutions, where education not only implies knowledge input, but also, some current values in society. On a visit to this place the school's students are questioned, challenged and have the opportunity to reflect about their act as a student and a citizen. These places have increasingly become educational sites that are partners and complementary to formal education, enabling the increasing of the scientific knowledge by society. These places gain students' attention and provoke these students most, which is rarely experienced in school classrooms. Therefore, teachers start to see these places as institutions that are able to provide some important complements to a student's educational process. The literature that discusses school-museum partnership is vast, and aims to establish parameters about the possible ways to accomplish this partnership. However, little has been done in order to approach these scientific productions and discuss their results. Based on these and considering the increasing amount of scientific literature that shows the partnership between these two educational sites, studies called 'State of the Art' are needed. They are descriptive and executing, and are still little found in Brazilian literature. So, this qualitative and quantitative research is defined in two interrelated objectives: (i) internationally, it comprehends Australia, Spain, USA, Finland, France, Israel and Italy in order to survey researches that investigate partnership between schools and science museums so as to discuss the pros and cons of this educational cooperation, and (ii) nationally, from a state-of-the-art study, it identifies and describes the main features and trends of master dissertations and doctoral thesis submitted in the

period between 1970 and 2010. In (i) the results focus on the adoption of the partnership between schools and science museums, demonstrating that: (1) it brings gains to both institutions, (2) it improves student learning, (3) it is a partnership that involves several organizational, institutional and personal elements, and visiting students get a clear cognitive gain when compared to students who did not participate in the tour. In (ii) thirteen Brazilian master dissertations and doctoral thesis focus on this partnership. However, there is inadequate diffusion and socialization of these academic productions to the wider educational system. Thus, little can be estimated about the contributions of these researches to subsidize possible changes and improvements, since the result dissemination of these academic productions consists in a mapping work to improve the quality of science education. Especially with regard to education in science museums, the objective is a better use of the potential school-museum partnership. It is highlighted the fact that researching on education in science museums has a multidisciplinary character and its own historicity in the Brazilian scenario.

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## **EFL Curriculum Design Based on Peirce Sign Theory to Foster Lexical Competence and Linguistic Performance in Young English Learners**

This document examines the deficit of lexicon and linguistic performance of a group of young English learners and some of its most important repercussions when attempting to communicate effectively in English as a foreign Language (EFL), such as wrong interpretation when reading, absence of listening skills to extract information or follow instructions in class, inaccurate attempts to produce written or spoken language, and weak word-association processes. These issues lead to a poor language performance and the impossibility of the students to express their thoughts or ideas clearly.

The authors design and assemble an English Language Learning curriculum, contemplating the specific needs of the Colombian educational context, as well as the student's language background and learning needs. This proposal starts by considering the sign-theory concepts about oneness, representation and representamen proposed by Peirce. These notions became into the basis for creation of teaching instruments, assessing processes and enhancing of language competences; addressing sign representations and mental imaging to increase awareness of vocabulary learning, construction of meaning and their appliance in different learning contexts. The possible relationships between words and meaning also support and supplement other linguistic competences development, allowing the students to integrate all language skills into real learning scenarios.

This paper attempts to characterize and demonstrate the positive impacts of an EFL curriculum in the construction and implementation of a diversified lexicon that supports the language learning process of the students in several learning stages or situations, by enriching their lexical competence through a mental imaging representation approach that helps the students to create adequate word-association processes in order to improve their entire linguistic performance when communicating with classmates or teachers.

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### **The Socialisation of Emotions in Daycare Centres: The Early Childhood Educators' Perspective**

Children's socioemotional development is the subject of much research in recent years (Denham et al., 2013). Many studies have shown that skills related to the expression, understanding and regulation of emotions acquired during the preschool years play a key role in the adjustment and subsequent academic success of children (Eisenberg et al. 2010). These results have led researchers to focus specifically on the socialisation of emotions, a process through which children learn to recognize, assimilate and master various skills related to emotions through social experiences. However, few studies have investigated early childhood educators (ECEs) practices and beliefs with regard to the socialisation of emotions, despite the fact that they deal with children's emotions everyday and are engaged in educational activities that may have an impact on the socioemotional development of young children. The purpose of our research project was to examine how early childhood educators perceive their role as emotion socialisation agents.

Interviews were conducted with 81 ECEs working in childcare centers in Quebec (Canada). ECEs were asked a variety of questions related to their practices and beliefs regarding the socialisation of emotions in daycare settings, the promotion of socioemotional development, and the adequacy of their training (e.g. what did you learn from your work experience about emotions that you didn't know after your initial training?). Educators were also asked to identify which emotions and emotional situations they find easier/harder to deal with. The final section of the interview proposed short scenarios to document ECEs' emotion-related practices in typical emotional situations.

Preliminary results suggest that ECEs acknowledged the importance to facilitate and support children's socioemotional development in daycare centres. However, few participants reported specific practices

having as a goal the promotion of emotional skills and competencies (a similar result was recently reported by Papadopoulou et al., 2014). Joy, sadness and anger were the emotions most frequently observed by ECEs during daily routine, followed by excitement, jealousy and fear. A majority of participants feel competent dealing with positive and negative emotions displayed by young children. However, many of them recognised having insufficient knowledge about ways to foster children's socioemotional development and strongly suggested to review the curriculum and educators training programs.

Results are discussed in terms of their implications for early childhood educators' training and the development of new interventions in daycare settings.

**Elizabeth Curtis**

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### **The Values Dimension of Quality Teachers: Can we Prepare Pre-service Teachers for this?**

The idea of teacher quality is at the forefront of educational debates and research globally. A teacher for the 21<sup>st</sup> Century must be equipped with a sophisticated range of skills and capabilities, but it must go beyond knowledge, understanding and skills, to include effective dispositions, strong student/teacher relationships, communicative capacity, empathic character and self-awareness. Teacher quality encompasses many aspects, including skills, knowledge, attitudes, dispositions and values. This paper reports on a qualitative case study conducted with pre-service teachers in a Faculty of Education in an Australian university. One of the findings of the study points to the benefits of pre-service teachers engaging in an explicit values-based pedagogy. Through their engagement with such a pedagogy, in this case Philosophy in the Classroom, the participants became more aware of the values dimension of quality teaching. If teachers are better prepared in the values dimension of teaching, this will make them more holistic quality teachers which will in turn positively impact upon student achievement and well-being.

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&

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**Art and Science:  
Articulating a Contemporary Dialogue using the  
Perspective of the Renaissance (Relation Galileo-Cigoli  
Rediscovered)**

By two research groups, INTERART (Interaction between Art, Science and Education: Dialogues in Visual Arts) and PEFAHC (Research in Physics Teaching, Astronomy and History of Science), started five years ago, motivated by the celebration of the 400 years of the invention of the telescope, a dialogue that became permanent at undergraduate and postgraduate with our inquiries about the development of art and science from the Renaissance to Contemporary.

We take as a basis the relationship between Galileo Galilei (the "scientist") and Lodovico Cardi's Cigoli (the "Artist"). By analyzing the construction of the works "Siderius Nuncius", "Madonna Assunta" (fresco at the Paolina's dome in Santa Maria Maggiore, Rome) and "Discorsi Intorno alle Macchie Solari e loro Accidenti" discovered an intercultural universe where art and science were linked in a harmonious and indissoluble way. Thus, the old nomenclature: artist and scientist, should be changed to "scientist-artist" and "artist-scientist." This reflection was inaugurated with the "Paranaense's Workshops of Art-Science/International Meeting on Art-Science" to provide a space for interaction between art and science in dialogue with different audiences. In this trajectory we wrote several books, built blogs and created the "Brazilian Review of Art-Science", a magazine devoted to the permanent art-science dialogue. Furthermore, we initiated a more permanent and educational vision when we contribute to the creation of Bachelor's Degree in Visual Arts at the State University of Maringá and introduced a discipline named "Intercultural Dialogues I and II"; and, similarly, in the Bachelor's Dg. in Visual Arts from the State University of Ponta Grossa the discipline "Dialogues Art-Science". In the *stricto sensu* academic area, we create, in the Post-Graduate (Masters, PhD) in Science Education and Technology, Federal Technological University-Paraná, Ponta Grossa, a research's line for "Art, Science and Teknè: intercultural dialogues" with six postgraduate students working on research of different art-science relationship.

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## **Motor Skills and Language to Help Autistic Children**

This research aims at improving the life of autistic children (Write: 2012; Vasa et al: 2013) through a program which focuses on motor theory (Verhagen et als.: 2008; Megan MacDonad et als.: 2013) as the most important input either for stimulating linguistic means or social behavior or improving movements.

A group of only 6 children (age 6-7 males and females) is still under control. We started examining them in September 2014 and we will go on until the end of June, interrupting just for the summer vacation. The parents have promised to follow their children for the months of July and August by stimulating them according to the context in which they will act.

The theoretical premise is supported by the recent researches attesting the close relationship between language (Alott: 1989; Cordona:1988) and motor skills, viewed as the result of the interconnection among different areas of the cerebrum which work in unison with the cerebellum, too. Since autistic population shows motor skill deficiencies as well as language impairment, because of less connectivity (underconnectivity/asymmetry: Herbert et als.: 2015; Hardan et als.: 2000; Courchesne: 1997) between different regions of the brain, including the cerebellum (loss of Purkinje cells), which oversees muscle coordination and balance, we thought to stimulate autistic children by including in the schedule also sensory inputs (vision, hearing and touch). By considering the innate as well as the physiological human attitude to imitation (mirror neurons), in order to improve language and movements, we are proceeding step by step thus, presenting small objects to grasp and name. Meanwhile, we leave gross motor skills at the end of the program when the children have achieved an average balance and knowledge of their body. In so doing, we strengthen not only the muscles of the body, so the children can perform simple acts (fine motor skills) as holding a pen, or a spoon, or brushing teeth and so on, but they will also model the muscle of the vocal apparatus not only to modulate their tune but also to pronounce words and sentences using precise phonemes. In brief, they will gain more self-confidence, and consequently have a better social relationship with the people around them. We haven't started any real sport yet, but only catching a ball in pairs or jumping in groups, thus enhancing social, visual, tactile, distance, time and space skills. Our research is still in progress and we don't have any final data yet to make any prevision,

even though we are quite satisfied by the result achieved by the children who seem more confident and relaxed.

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## **Collaborative Learning Network to Develop Transversal Competences in Graduate Studies**

Nowadays, in the university context, the teaching process of any degree should lead to achieving results that are expressed in terms of skills to be acquired by students for their professional careers and which should be approved at a European level. This should involve a different type of teaching coordination to achieve these competences based on the provisions of the curriculum.

The new curricula have changed the way we teach and learn. This means that students must learn to study autonomously and that teachers have the role of facilitators that promote student involvement in learning and acquiring outcomes and skills. This new approach requires teachers to understand the skills that students need to learn and how to get them. Furthermore, it is necessary to analyse the methodologies that allow this new way of working with ICT.

This paper is a proposal for a Collaborative Learning Network, whose implementation is carried out by selecting and using the most appropriate collaborative tools for the acquisition of the Transversal Competences that are common to all graduate studies. In 2000, a group of universities collectively accepted the challenge formulated in Bologna and produced a pilot project entitled "Tuning, Tuning Educational Structures in Europe". The Tuning project addressed several of the action lines in Bologna but was particularly useful in the

development of skills. The first contribution of the Tuning project was the differentiation made between learning outcomes and competences, establishing differences also between the competences as generic/transferrable or specific. According to Trullén Pulido (2008) a generic or transferrable skill is one that is common to all professional profiles or disciplines, while a specific competence defines a specific professional space. For example, decisional capacity or the ability to solve tough situations would be a generic competence required for any professional profile.

Learning together is one of the most innovative lines of research in education in recent years. Terms such as "learning communities", "personal learning environments", "connected intelligence" are increasingly used especially when it comes to learning strategies. If we take a step further and focus on those learning strategies also involve the necessity to be networked, we can start talking Collaborative Learning Network (CLN). Teaching can be understood as a significant process in which knowledge is constructed, negotiated and involves collaborative learning (Adell, 2004 and 2010). Given that the use of technology has changed the way people learn, the use of methodologies for collaborative networking is another step that allows building meaningful learning from peers.

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**Ruben Dario Santiago-Acosta**  
&  
**Lourdes Quezada-Batalla**

## **Widget Based Learning to Develop Meaningful Comprehension in Math and Science Courses**

Mobile learning has become a technological trend with a very fast time of adoption in education. Actually, with lots of educative Apps and other applications to develop educative products by teachers in an easy way, the perspective is open to innovate in education by implementing several educative technological tools supported by this technology. Today, mobile devices embody the convergence of lots of technologies, ready to enrich education. By including electronic book readers, annotation tools, tools for creation, sensors and composition and easy access to mobile educative sites, they allow enable the device to be used creatively in classrooms and labs.

Current work is a final report of design and initial implementation of outcomes about an educative program based on use and construction of widgets at higher education level for engineering and sciences areas with four main different tools: Wolfram Alpha, Desmos, Math Studio and Mathtab. Project is centred at higher education level for engineering and sciences areas but it can be easily extended to High School students with similar orientation. Applets and widgets were created around of Physics and Mathematics curricula under Project Oriented Learning and Blended Learning methodologies. Two phases for each activity help to develop basic and high level thinking: a) teacher's designed widgets are first used by students to appropriate basic and middle concepts of each specific course, after b) students generate more complex thinking skills by construction of them by selves, by applying that concepts, but involving at this time, different applied situations.

Proposed design is based on curriculum integration to show mathematical, technical and visual representation of problems and concepts being considered. Description of design is shown, when Wolfram Alpha, Desmos, Math Studio and Mathtab widget developers, together support managers tools as Weebly, Google Drive and Jotform tools are combined to set up activities being depicted in terms of teacher-students interaction. Currently, those activities are distributed in three different didactical constructions: a) General purpose Physics and Mathematics widgets, b) Calculus lab based on Desmos, and c)

m.physlab: a mobile physics lab implementing applets and widgets to support data analysis in Physics experimentation.

Additionally, an institutional continuous teachers' training program has been generated to support their technologic development in Math and Physics education, based on these technologies and applications. Training courses involved are completely based on Math and Physics constructions and they are taught by colleagues developing and boosting current project. First outcome of introductory implementation with students is shown.

**Ziva Deutsch**

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&

**Hava Greensfeld**

Head of Research Unit, Michlala, Jerusalem College, Israel

## **The Centrality of Positive Emotions in the field of Mathematics**

Mathematics, until not long ago, was perceived as a discipline centered on intellectuality with only a minimal role granted to emotions. A great deal of research has recently stressed the interaction between a variety of emotions and the quality of learning. Feelings such as fear and disappointment have proven to impede effective learning of math. Our study, however, focuses on positive emotions that may be evoked in the context of involvement with mathematics and seeks to evaluate the role such feelings may play in enhancing the ability to contend with mathematical challenges among participants in the Math Olympiada.

The Math Olympiada is a competition involving problem-solving in mathematical thought, conducted by the Math department of Michlalah College, Jerusalem, targeting female high school students both in Israel and internationally. The fifth Olympiada, which took place in 2012, involved 4000 participants. The study sample comprised of the finalists scored  $N=65$ . Research tools included a questionnaire directed at that group and in-depth interviews of the 10 top finalists. Results of the study showed that positive emotions are a central motivating factor in the field. Prominent among these were emotions that accompany interactions with mathematics from an early age, such as excitement, curiosity, and a sense of harmony and completeness surrounding the joy of discovery.

In this presentation we will hear the voices of ten outstanding finalists from different parts of the world. Their words resonate with awareness of the centrality of positive emotions in enabling them to deal successfully with mathematical challenges. The findings of the study illuminate a new aspect of the connection between mathematics and emotions, and offer tools to math educators that can aid in improving the standing of mathematics among their students.

**Adriano De Almeida Ferraiuoli**

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### **The Pursuit of Aesthetic Education and Social Interaction in Visually Impaired Students Based on Practice in Woodcut**

This research was developed as an extension program at Instituto Federal Fluminense (IFF) / Rio de Janeiro / Brasil. It was held in the Teaching-Learning in Art and Inclusive Education area specifically related to visual impairment, and it had as reference sensory and aesthetic experiences acquired in pedagogical research in woodcut. In this context, we researched in what ways experiences in woodcut may represent space for dialogue and cultural mediation, by developing sensory and aesthetic experiences in visually impaired students of technical education, from pedagogical practices that sought social interaction and inclusion. The aesthetic and sensory experiences in woodcut sought plurality as a principle that is articulating knowledge, implying means of educational work in a diverse environment. Thus, pledged with the aesthetic development of the students, seeking to awaken the artistic sensitivity in visually impaired students, in order to make them perceive the woodcut as a sensible way of creation and expression. The study aims to understand how the woodcut can help develop sensory and aesthetic, as well as to investigate the social interaction and the social transformations in the face of the challenges posed in the research. The research was based on 20 weekly meetings, during three months in 2012, with 12 visually impaired students who volunteered for the technical school. It used qualitative methodology-based approach, such as observation and analysis with the use of data collection and techniques for a detailed understanding of the object of study in the context of action research and participant observation. The study required from the researcher a watchful and multidirectional eye, besides the use of a large set of methodological techniques, which presupposes a strong engagement between researcher and participants. The corpus of the empirical research was composed of the following recording instruments: file daily (photography, filming, audio file and diary writing), artistic production of the participants, survey and interviews. The categories of the survey were: perception, social interaction and aesthetic formation. As a result, we discovered that the sensory and aesthetic experiences in woodcut are a space transformer, capable of arousing an intertwining of cognitive relations in pursuit of aesthetic solutions. The woodcut is revealed as an aesthetic language,

which uses the sensory and artistic expression. It also presents itself as a transformative didactic resource for teaching the art for the visually impaired, and is able to significantly promote the development of aesthetic perception and sociocultural interaction of the participants.

**Thelma De Jager**

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### **Using a Biometric Fingerprint Device to Record and Encourage Class Attendance and Active Student Participation**

Biometrics can be created from physical or physiological characteristics of a student, which could include: a fingerprint, an outline of a hand, an ear shape, a voice pattern, DNA or body odour (Heckle, Patrick & Ozok, 2007:2). In this study, the author has used a biometric fingerprint device to accurately record student-teachers' class attendance and encourage active class participation. Each scanned fingerprint contained ridges in the skin which accurately identified with the student's specific characteristics on the system. A large student-teacher class (n=180 students) of a South African university, participated in this study during the second and third semester of the academic year. To encourage class attendance and active student participation, a biometric fingerprint device was used to capture scanned data on the system. Class attendance was recorded and active student participation was encouraged by rewarding students with so-called 'class-bucks' for active participation and for contributing quality comments in class. Although class-bucks were awarded in both the second and third semesters, the number of students who were actively involved in discussions increased by 8% in the third semester (when biometric fingerprint scanning was implemented) and class attendance improved by 18%.

**Rian De Villiers**

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### **South African Migrant Teachers and the Reshaping of Knowledge Flows Globally**

Human mobility is one of the most significant development, foreign policy and domestic issues in the world today. Teacher loss due to migration is a global phenomenon that is impacting both developed and developing nations the world over. The purpose of this study was to find out how many newly qualified South African teachers were planning to teach in a foreign country; what were the prospective migrant teachers' motives for migration; what destination countries were the most popular and why; and what were the prospective migrant teachers' information needs before leaving South Africa. A group of final-year Bachelor of Education student teachers from a single university responded to a questionnaire on intra- and intercontinental migration. The responses were analysed quantitatively and/or qualitatively. The findings showed that 79% of the students indicated that they would be teaching in South Africa, 9% were planning to teach in another country, while 8% were undecided. More than a third of the students (38%) said that they would like to teach in another country in five years time. Just more than a quarter of the students (27%) preferred Australia as a destination, followed by the United Kingdom (16%), Korea (16%) and the USA (14%). The student teachers' most important motive to teach in a foreign country was the opportunity to travel (27%), followed by earning a higher salary (26%) and professional development (23%). The student teachers indicated that their most important migration needs before leaving South Africa were information about health care, accommodation and banking assistance. Huge loss of teachers to host countries has a serious, negative impact upon the education system of most developing and/or source countries, including South Africa. Several steps and strategies to resolve teacher loss in South Africa are discussed.

**Maria Cristina dos Santos Peixoto**

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&

**Sara Bahia**

Universidade de Lisboa, Portugal

## **Cruising Routes on Arts Teaching in Portugal and in Brazil**

This article is part of a research conducted in the Post Doctoral Study at the University of Lisbon, when we had the opportunity to cross data on the teaching of art in Brazil and Portugal. Research had funding from the Brazilian Coordination of Improvement of Higher Education Personnel (CAPES). We hereby depict two voices on the state of the art of the teaching of arts in two Portuguese speaking countries as a way of laying the seeds for a multi-faceted discussion about the ways to value the essence of the arts in the development of "multi-literate" generations (Eisner, 2008). The aim is to raise reflections on the legal and theoretical foundations that underlie the proposals for teaching of arts into countries and the importance that education gives the visual arts as well as to share educational experiences that led to more creativity and freedom of thought, based on ethical values (UNESCO, 2001). The common denominator of this dialogue in two voices on transatlantic perspectives of arts education is based on secular conviction of Dewey (1934) who argued that the artistic act was the essence of all forms of knowledge and that its teaching allowed the development of the environment. We present examples of how arts education promotes a better adaptation and development as well as enhances engagement. The qualitative methodology (Lücke & André, 1988) proposed in the classroom was characterized by the use of questionnaires and interviews that sought access to the evolutionary process of the gains of the students subject to art intervention programs and also, by the use of criteria widely used to evaluate products of artistic nature in educational contexts (Bahia & Trindade, 2012). We sought to acknowledge categories such as: creativity, imagination and interaction. Theoretically, we assume the Vygotskian view that all people are potentially creative, the Piagetian view that the development of artistic expression is essential for personal development as well as Dewey's view that education must be guided by a constant reflection. The data collected showed us how it is possible to promote arts education in different cultural contexts, such as training of art teachers and that a deep reflection about arts education is critical for the development of multiple literacies.

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&

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Head of EneSys Institute, Ruhr-University Bochum, Germany

## **Generalized Lead-Acid based Battery Model used for a Battery Management System**

This paper deals with the determination of a battery model for different designs of lead-acid based batteries. Even though batteries with gelled electrolyte and absorbent glass mat (AGM) batteries are based on the chemistry of common lead-acid batteries they differ in regards to the parameters of a battery model. In this paper several measurement methods for the identification of these parameters are presented. These parameters enable the establishment of a battery model. A precise battery model can provide the basis for a battery management system (BMS). A BMS is required due to the rising number of electrical components in modern vehicles making it necessary to control the current capability of the battery. The results presented in this paper indicate that every battery type needs a specially optimized battery management system as the behaviour and the characteristic qualities vary between the different designs.

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**Karola Dillenburger**

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&

**Mickey Keenan**

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## **Autism and ABA: Best Practice in America and the Way Forward for Europe**

According to recent estimates, 1 in each 68 new-borns will be diagnosed with an Autism Spectrum Disorder (ASD) in the USA (Centers for Disease Control and Prevention, 2014), while 1 in every 29 children will be diagnosed with ASD in the UK (Dillenburger, Jordan, McKerr, & Keenan, 2015). Individuals diagnosed with ASD share a set of characteristics at varying levels of severity: impairments in social communication skills and presence of restricted interests and repetitive behaviours (American Psychiatric Association, 2013).

Notwithstanding these figures, little effort has been placed in European countries' policies for reaching an early diagnosis. This has a detrimental effect on future prognosis for children with ASD, since research has clearly shown that when evidence-based interventions are accessed early in life, they can lead to great improvements on the overall functioning of children with ASD, including significant gains in social communication and reduction of inappropriate behaviours (Dawson, Rogers, Munson, Smith, Winter, Greenson, Donaldson, & Varley, 2009).

Additionally, when looking at the services available for children with ASD and their families in Europe, it seems that not much improvement has been made in the last decades. Traditional eclectic approaches and a wealth of non-scientific methods seem to be available and often recommended by public bodies, while state-funded evidence-based interventions are not offered as part of the education or health system. Given that there is a wealth of evidence on the effectiveness of interventions based on the science of ABA, it seems that specific action is required to correct the situation, respecting children's right to effective treatment and inclusion.

In the present paper, these issues are fully discussed and recommendations for best practice are offered.

**Efthymia Efthymiou**

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**The Development of Education-Centred Pedagogies:  
Trends in Two Mainstream Classes towards a More or Less  
Equitable and Inclusive Environment for Students with  
SEND**

The debate regarding the inclusion of children with Special Educational Needs and Disabilities (SEND) in mainstream education in the UK partly revolves around what makes the classroom environment inclusive. Social and local conceptualisations of government guidelines, as well as specific school agendas, currently influence a range of practices. This study aimed to identify ways in which multimodal discourses and particular pedagogic approaches shape the positioning and identification of students with SEND in two primary school classes. It investigated whether the practical discursive positioning of students with SEND in these two classes could deliver inclusion. The study considered the views and behavior of primary school students with and without SEN, primary school teachers and teaching assistants (TAs) in one mainstream school. Drawing on a multimodal approach to discourse analysis to account for the complex relationships between symbolic and non-verbal modes of classroom signification, the study explored how meaning is produced in classrooms and children's modes of communication, as well as teachers' practices, are discursively constructed. The two classes are compared on the basis of teaching observations, interviews, transcripts of dialogues, and analyses of classroom organization and decoration.

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**Ilana Sinai**

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&

**Seena Yasin Amar**

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## **Textbook Visual Representations: The Case of High-School Ecology**

Researchers recommend the introduction in school of direct and intentional students' meaningful encounters with Visual Representations (VRs) for promoting students' development of Meta-Representational Competencies (MRC). One source for such encounters is the subject-matter textbook. However, despite textbook VRs' increasing predominance, textbooks endurance as a major classroom resource, and reports suggesting that text referrals to adjacent VRs and relevant tasks that involve students' manipulations would gradually promote students' MRC - related research is scarce and students and teachers were shown to make little use of textbook VRs. Using a mixed-methods research paradigm and a specially designed schema for analyzing various dimensions of textbook VRs, we conducted an analysis of an ecology textbook used by all schools as a core biology curriculum required for matriculation. Generally, findings have shown that the textbook was saturated with a large amount of VRs but their potential to promote learning ecology and MRC is limited. For example, although photographs were significantly preferred over other VR-types, they mostly represented qualitative familiar information that did not support content understanding, and exhibited a great amount of "noisy" irrelevant information that decreased clarity of core aspects. Only few VRs added new information or new interpretations to adjacent text. Significant relations emerged between VRs' types and their role with regard to the text, where most photographs and schematic drawings carried a decorative role, and most realistic drawings concretized specific referents' aspects. About half of VRs were not referenced at all by the adjacent text, decreasing the chances for their examination by students. VRs' potential to present different approaches to science was low as well, mostly presenting science as a body of knowledge. Approaches to science representations were significantly related to VR-type, sending wrong messages regarding representing. Last, most VRs did not require any MRC for their interpretation. This limited potential may hinder students' accessibility

to ecology and other information sources. Educational implications are discussed.

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&

**Anitha Devi Pillai**

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## **The Information Seeking Behaviour of Academic Discourse Skills (ALS) Students and Effect on Student Research Papers**

Information literacy and research skills are essential in a global knowledge economy and professional development (Davis, Evans & Hickey, 2006; Waite & Davis 2006). Such skills are increasingly seen as an integral part of teacher education (Shaw, Holbrook, Scevak, Bourke, 2008). While it may be assumed that the acquisition of a degree would result in teachers being active researchers, this is not always true (Robertson & Blacker 2006). Cakmakci (2009) states that the ability to carry out educational research is often cited as an attribute that a teacher should possess, and that teachers benefit from carrying out education research rather than just reading about it ( van Zee,1998; Sozbiolir, 2007).

The focus of this funded study was to explore the research process, in particular the information-seeking behaviours, of NIE undergraduate students enrolled in an academic writing class with the eventual aim of developing intervention techniques to improve their ability to evaluate and integrate information into a research assignment.

*RQ: What are the information-seeking behaviours feelings, thoughts and actions of pre-service teachers enrolled in an academic writing course at NIE?*

The participants were 24 NIE BA students age 18 and above enrolled in ALS 101 (Academic Discourse Skills) January 2013 semester. Student participation in the project was voluntary. Data sources included a Google survey given to 24 students in April 2013 which asked them about their thoughts, feelings and actions regarding the use of sources for their research assignment and the final drafts of their research papers which were submitted in April 2013. Soft copies of the final drafts were accessed from Safe Assignment (plagiarism software which is installed on Blackboard 9, NIE's Learning Management System).

The first stage of the analysis used Kuhlthau's Information Search Process (1983), a constructivist task based model of the research process with predictable actions, thoughts and feelings. This analysis yielded both quantitative (number of responses) and qualitative data (student comments). The second stage was conducted based on Swales (1990) text-analysis model. Rhetorical choices made by the novice writers

showed their understanding of the research paper genre and its sub-genres (Pillai, 2012).

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**Emma Otta**

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&

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## **Profile of the Alumni of University of São Paulo – 2012**

The University of São Paulo is a public, state owned university from State of São Paulo, Brazil. It is the largest Brazilian university and the country's most prestigious educational institution, and one of the best universities in Ibero-America. According to reports by the Ministry of Science and Technology, the USP faculty is responsible for more than 30% of scientific papers published by Brazilian researchers in high quality journals. The total enrolment is approximately 90,000 with 33% enrolled at the graduate level (master's and doctoral programs). USP offers 247 undergraduate programs and more than 627 postgraduate programs in all academic areas, delivering 2,300 PhD degrees each year.

The paper reports the results of a survey conducted in 2012, between October and December, directed toward the University's alumni, both from undergraduate and graduate programs. The main research question is to understand how different patterns of curricula and learning contents influence the alumni's life aspirations and expectations. The USP provides a good ground for exploring this issue, given its traditional curricula design, with strong divide between different undergraduate courses. The questionnaire covered issues related to the alumnus' professional life, his/her evaluation of the university's infrastructure (library, laboratories, teaching facilities, etc), curricula contents and quality of the university's faculty. The questionnaire also inquired on the alumnus "life aspirations", presenting a number of questions inquiring some fundamental values of life, as developed by Edward Ryan and Richard Deci, from the University of Rochester. On the total, 12,000 alumni answered the on-line questionnaire. Of this total, 9,978 were selected for analysis.

Among the respondents, 42% attended only bachelor programs, 29% attended graduate programs (master's and doctoral programs) and

another 29% attended bachelor and graduate programs at the University. Differences in gender are well represented in the sample, with 47% of female among the undergraduate, and 48% of female among the graduate alumni. Most of the respondents were up to 45 years old (74% and 75% of each sample, in the same order), and for each group, the modal age was 30-35 year old (26%), and 35-40 years old (24%).

The Standardized Adjusted Residual (STARs) between level of income and the ECD ISCED97 classification of educational programs (<http://www.oecd.org/edu/skills-beyond-school/1962350.pdf>) undergraduate classification, which distinguished courses focused on agriculture, education, engineering, health and social services, humanities and arts, personal services, science, and social sciences, business and law, produced a consistent pattern of stratification. Alumni from the engineering programs received on average the highest salaries, followed by the alumni from Social Science, Business and Law, and below are other alumni. Education is the career with lowest income.

The regression and classification tree analysis using as dependent variable the total score of the "Life aspirations". The Aspiration Index "assesses people's intrinsic and extrinsic life goals or aspirations. That is, it measures the degree to which people value seven broad goal contents - wealth, fame, image, personal growth, relationships, community contribution, and health." (<http://www.selfdeterminationtheory.org>) This analysis produced a well defined pattern where the most relevant variables for predicting the score is the classification of courses and the alumni level of income.

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**Project on Educative Innovation by University of  
Valladolid: Didactics of Language and Literature, Area for  
Developing Creativity and Intercultural Competences of  
the Education Professionals**

The aim of the paper is to present one of the Projects of Innovative Education promoted by the University of Valladolid after the study of the numerous requests of their lecturers every year.

This international project tries to focus on the education professionals of different levels, since they are the principal agents on offering to the society in general the resources and knowledge to get the nowadays intercultural competences required for both the everyday life and in particular the educative process. This project combines the research and the teaching actions and advances taken by the professionals centred on the study, research and teaching the language and literature area.

Among the members of the project there are teachers and researchers of different educational levels: primary school, therapeutic pedagogy, university degree and doctor's degree. The area of language and literature provides a wide field of activity that allows to combine as the language as the form of communication as also the field of research and development of various works. The project is formed by professionals of education from Spain and Italy.

The aim of the project is to put in common the current research works on the area of study of language and literature, to get to know how these investigations can be put into practice in the classroom, at the same time that to know the development of the area in some geographic areas of Europe. So, the study of language becomes a field of intercultural collaboration, promoting the creativity and the continuous training of the professional of education.

The project lasts for one year: from August 1<sup>st</sup> 2014 to July 31<sup>st</sup> 2015. It is structured in different phases which will be in a advanced status by the dates of the Conference.

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**Facilitative Training of Community Careworkers who Support Young Children Affected by Maternal HIV/AIDS**

A protective factor identified in the ground breaking Kauai resilience study (Werner, 2005) indicate that substitute caregivers play an important part as positive role-models and resilient children actively seek out people to perform this important role. The Promoting Resilience in Young Children Study was a NIH-funded randomized control trial which aimed to enhance resilience of young children living in families affected by maternal HIV/AIDS. The participants enrolled for the study included 429 mothers with children between the ages of 6–10 years (Forsyth, 2005). The study was implemented in two resource-poor communities in South Africa. Multiple qualitative data sources were analyzed to investigate the impact of volunteer caregiver training on the intervention. Theory-driven outcome evaluation guidelines directed the evaluation of the caregiver training. The careworker theory-based training manual focused on basic training in the field of counseling, group facilitation, psychology, social work and HIV/AIDS. The careworkers were volunteers with a Grade 12 certificate, but they were inexperienced in counseling and facilitation of groups. The multiple data sets used to evaluate the intervention indicate that the careworkers were adequately trained to fulfill the requirements set for a group facilitator. They were able to apply the manual in the support groups according to intervention prescriptions and they displayed facilitation skills necessary for child groups. They could relate to the children in a warm and emphatic manner. The careworkers could identify and reflect the children's emotions and manage difficult behavior (for instance, hyperactivity and aggression). They could furthermore identify children who were in need of referral. Their experience as facilitators had an added benefit because they were able to extrapolate the knowledge and skills they had gained to their own families.

**Jeannette Ford**

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&

**Gerda Sula**

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**The Promise of Pre-Service Teachers in Albania**

**Elvis Foster**

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College, USA

## **Towards Measuring the Impact of Management Support Systems on Contemporary Management**

This paper conducts a qualitative inquiry into the efforts made in evaluating the impact that management support systems (MSSs) have had on contemporary management, and the related theory employed in conducting such evaluations. The paper pursues this dual objective through an extensive literature review on the topic. The paper addresses the related questions of the criteria used to assess the success of such systems, and the impact of such systems based on those criteria. The existing literature provides encouraging accounts of successful implementations of MSS projects. However, the absence of a widely accepted theoretical model for more accurately evaluating the impact of these systems is somewhat glaring. Recognizing this dilemma, the paper makes observations about the existing literature, and proposes a generic MSS evaluation framework for subsequent testing, refinement, and usage.

The paper advances through five sections. Section 1 provides an overview of MSSs, identifying the different categories of software systems that comprise the MSS family. Then in section 2, an account is provided on seminal works in each category of MSSs. Section 3 conducts a critical analysis of the existing literature on MSSs. Section 4 shares some observations drawn from analysis of the literature, and on that basis, proposes a generic MSS Evaluation Framework that may be applied to such systems. Finally, section 5 provides a summary and some concluding remarks.

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&

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### **Tips for Effective Intercultural Collaboration on the Evaluation of an International Program**

Different groups of stakeholders expect the evaluation of an international, grant-funded program to inform them of the worth of the program—the funder, the agency operating the program, and the citizens of the country where the program is implemented. As such, it seems appealing to assemble an international team of researchers from the different cultures involved to evaluate the program. However, the effectiveness of their collaboration depends on many factors. This paper summarizes the challenges that mixed teams consisting of host country and US researchers faced as they crisscrossed a host country while evaluating a teaching and learning materials program. Firstly, for the collaboration to be effective, it was recommended that the teams be representative of the cultures involved, and have the required research and program evaluation skills. Secondly, the teams had difficulty working consistently on a shared performance system. Thirdly, successful teams were those whose members were self-aware, interculturally knowledgeable, not just in communication, but in conceptualizing the political and social context of international grant-funded projects. Team leaders must be people-to-people ambassadors who are invested in global understanding and have the capacity to continuously reinforce research ethics, build cohesive teams, and stimulate individual and team growth.

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## **Universal Design for Learning: Attending the Different Ways of Learning**

Universal Design for Learning (UDL) is an educational model focused on removing barriers to learning. UDL is based on three principles aimed to diversify the forms of representation (Principle I), forms of action and expression (Principle II) and forms of engagement in learning (Principle III). Each principle is developed through teaching strategies or guidance which can be applied to the whole curriculum leading in this way the teaching practice.

This paper focuses on the DUA's second principle: allow students to act and express their learning in different ways. Each person learns in a unique way, some of them prefer to learn and demonstrate their learning by manipulating objects, others by reading text or images, and some others learn when they listen an oral explanation. In the same way, some people work better in groups while for others this can be an impediment for learning.

The purpose of this paper is to analyse the reasons why it is convenient to help students to explore their own learning process in order to let them to identify weaknesses, strengths and learning preferences as well to steer them to demonstrate their learning in different ways.

It is necessary to promote strategies that respect this diversity and the synergic groups that are endorsed during the teaching process. To reflect on the benefits of this approach could be very helpful to the diversity of students.

This work was carried out as part of the Project "DUALECTIC - Application of Universal Design for Learning through the use of accessible digital materials: implications for the teaching of literacy and teacher training" (Ref. EDU2011-24926). Financed by the Spanish "Ministerio de Economía y Competitividad (convocatoria del Plan Nacional de I + D + i 2008-2011. Subprograma de Proyectos de Investigación Fundamental 2011-2014)."

**MacLeans Geo-JaJa**

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## **Human Rights and Shared Responsibility in Development Aid: The Nordic Model in Tanzania**

This paper draws upon some of my previous papers compiled and published in the books to be launched today entitle, "Asian Perspectives on Human Rights" (1992) and "Human Rights and Governance in Asia" (1994). This paper to be presented here assesses the relevance of human rights, right to development, and the interests of donors in development aid. The paper note that the Nordics are exception, as recipients' integrity rights and deepening needs play a significant role over self-interests in their development aid. At the level stage, donor geopolitical and economic interests conflict with over beneficiaries' needs and donors' legal obligation to social and economic rights to recipients. This paper makes the case that humanity will not enjoy development with security without respect for human rights and taking seriously right to development. The paper argue that only the Nordics' (Norway, Denmark, and Sweden) Reform Internationalism approach that integrates the essentials of human rights and promotes right to development at all levels can neutralize the existing negatives of the Realist Internationalism "rule of the game." Therefore, the author makes a case for ethic of humanity, human rights an inherent dignity, and right to development foundations of timely participation and development to be placed at the centre of development aid. Concluded is that humanity will not enjoy development without security, humanity will not enjoy security without development, and humanity will not enjoy either without shared mutual commitment and responsibilities humanity.

**Lynda George**

Professor, Central Connecticut State University, USA

## **Lessons from Socrates: The Depth of his Teaching Goes Far Beyond the Socratic Method**

The importance of *The Dialogues of Plato* and their meaning has been written about and discussed in depth by philosophers while little attention has been given to the pedagogy which Socrates enacts within the dialogues nor its relevance and importance in teaching today. Socrates' teaching is far richer and goes well beyond dialectics (questions and answers) for which he is justifiably most famous. Many methods and strategies, as well as Socrates' thoughts on teaching and learning, can be found within the dialogues. It is the intent of this paper to present these teaching strategies as well as Socrates' views on teaching and their relevance in the ongoing present-day debates and deliberation on education. Plato's use of dialogue, rather than explanation, is a gift that gives us the experience of dialectics. It allows the reader to observe and become a part of the learning experience. Not only do we see Socrates using dialectics to teach, thus using the method that bears his name, but other teaching methods and strategies woven throughout the dialogues as well. Texts referenced for this paper include *Lysis* (J. Wright, Trans.), *Meno*. (B. Jowett, Trans.), *Philebus*. (B. Jowett, Trans.), *The Republic of Plato*. (A. Bloom, Trans.), *Symposium*. (M. Joyce, Trans.), and *Theaetetus*. (F. M. Cornford, Trans.). The strategies found within these texts nurture insight and understanding through thoughtful inquiry.

Much time is spent in schools developing and enacting curriculum while little time is spent on the pedagogical aspects involving the art of teaching. Teachers are telling students what they need to know and textbooks are being read that lead students to answer literal questions asked at the end of each chapter. Thus much time is spent on rote learning with little time spent regarding the understanding that comes from making connections, reasoning, constructing meaning and nurturing thinking. Support for the "what" of what needs to be known regarding content is available but the "how" to engage, empower, enlighten, and nurture the love of learning and desire to know is often missing, lost, or has been stolen from the learning experience. Within the United States national and state legislation has led to hyper-accountability and exacerbated the technocratic practice of drill and practice through massive testing and teacher evaluations based on student test results. Socrates' pedagogy, on the other hand, stresses the love of learning and the desire to know and is thus worthy of discussion and implementation.

**Qi Gong**

Section Member, Anhui University, China

&

**Mi Fang**

Section Member, Anhui University, China

### **Promotion of Chinese Traditional Culture to Enhance the Humanistic Aptitude of Undergraduates**

Chinese traditional culture, the major source of socialist core values, is essential for the training of disposition, formation of character and cultivation of views of life. Against the background of socialist modernization, quality education based on Chinese traditional culture is indispensable. Quality education can be implemented through the establishment of HSA (humanistic and scientific aptitude) courses, lectures and other related cultural activities. Undergraduates can thereby expand their scope of knowledge, enhance their humanistic aptitude and cultivate their moral character. Anhui University has consistently implemented quality education by centering on traditional cultural values. A project entitled "A Hundred Excellent Quality Education Courses" has been launched. More than 20 courses on Chinese traditional culture which are beneficial in enlightenment of classics has been approved for project development. Anhui University also organized a series of lectures to enrich the extracurricular activities of students and to expand their knowledge. In addition, Reading and essay writing activities in the summer vacation and a series of activities called "Reading Classics" dwell on classics of the Chinese culture and human civilization at large. The students can develop an all-round personality of open-mindedness, moral integrity, wisdom and individuality. Their knowledge structure can be improved, research ability enhanced, observation sharpened and innovative spirit cultivated.

**Maria de Fatima Goulao**

Assistant Professor, Universidade Aberta, Portugal

## **The e-Activities to Support the Process of Teaching and Learning in Online Context**

The development and use of the Internet in education provoked changes in attitudes towards teaching and learning processes, and the role of their agents – e-teachers and e-students, as well as the interaction between them and the learning content. This designation entails changes not only in nomenclature but in particular in the form of face and structure of the learning process, but also what is expected of each of the agents involved. In any process of education activities are a key element as mediators of the teaching-learning process. They can take different styles and meet different objectives depending on the competencies that you wish to achieve. In the context of teaching and learning networked, e-activities play a no less important role. Learning in digital environments allows the use of resources and tools that enable interaction and networked learning, collaborative. In these learning contexts e-activities allow meeting the needs of an e-student independent action as well as the needs of joint and collaborative actions, and building them may alter a more passive posture to a more active and constructive attitude, by the student. E-activity is the term that is usually applied to the structure for an active and interactive online training. E-activities can be used in many ways, but have some common characteristics. Our main goal is to present the work in the creation and development of a learning module about e-activities. Throughout our work we will present the methodological options that were behind this structure taking into account, on the one hand, the content to display, and on the other, the way they are displayed and the reasons that led us to adopt that model.

**Graeme Gower**

Senior Lecturer, Edith Cowan University, Australia

## **The Contribution of Cultural Competency to Improving Ethically based Indigenous Research**

The term, 'Cultural competency' has received much attention in health, nursing, psychology and education literature as a result of an identified need to provide high quality health and educational services in cross cultural contexts. The importance of cultural competency in research is also beginning to emerge in the literature with the identified need for researchers to have a greater understanding of their study participants, particularly those from specific populations or diverse backgrounds. More important however, is the application of this understanding across the entire research process, including: research design, conduct, interpretation and participation in the study. Cultural competency in Indigenous Australian research has been identified in the literature as a critical component in assisting researchers in becoming more culturally responsive and sensitive in all aspects of research. In addition, cultural competency can play a significant role in developing cultural empathy and effective communication so that researchers can be in a better position to develop collaborative partnerships in research with Indigenous communities that are built on trust and respect.

Research in Indigenous Australia has historically been controlled and dominated by non-Indigenous researchers. The Indigenous experience in research has often been one of exploitation with little or no participation and no benefit to the Indigenous community. However, the landscape of Indigenous research in Australia has entered an era of post colonisation as evidenced by a gradual paradigm shift through the development of national ethical research guidelines and practices that recognises Indigenous ownership and control over research. . Given these changes, the importance of cultural competency in Indigenous Australian research becomes vital in assisting researchers develop a greater understanding of the research guidelines that relate to Indigenous research and how to effectively apply them throughout the research process.

This paper explores the importance of including cultural competency in national research guidelines for the conduct of research involving Indigenous Australian issues. A case study is used to demonstrate how cultural competency can contribute in improving ethically based Indigenous research.

**Hava Greensfeld**

Head of Research Unit, Michlala, Jerusalem College, Israel

&

**Efrat Nevo**

Teacher Educator, Michlala, Jerusalem College, Israel

## **Students Facing Examples**

The purpose of our study was to expose students' academic emotions to the learning process in an example-rich learning environment, through the use of examples created by students in previous years. The study was conducted within the framework of the "Learning Processes" academic course at the Center for the Development of Thinking and Learning at a teacher-education college, from 2010 to 2013. The participants were 70 women who worked in various educational professions. Research tools were observations and four questionnaires distributed at selected stages during the course.

Students were asked to write a summary of an academic text that described a learning theory, and present it in a manner that would reflect their understanding. The participants began each task by proposing a first draft; they were then asked to improve their initial product through study of a pool of examples created from the work of students from previous years. Content analysis and linguistic analysis revealed a mosaic of academic emotions toward learning through the examples. These emotions were found to shape six types of academic emotional users of examples.

The behavior of each individual learner in an example-rich environment was found to be determined by complex processes involving the academic self-concept of each type, the particular achievement goals on which each was focused, and the kinds of social-academic emotions that an example-rich environment aroused. The extent to which examples were actually used or not used was examined through the prism of these three dimensions. Results highlighted the central importance of the motivational component in all that concerns academic emotions. Variations among these three dimensions may aid in characterizing differences among learners in online environments and explain their level of willingness to use that environment.

Our research has important practical implications for learning processes in an age in which information is increasingly accessible in example-rich environments.

**Igor Gurevich**

Senior Researcher, HETNET Consulting Company, Russia

### **Information Characteristics of Physical Systems**

The report includes the following questions: Information laws of nature (the laws of informatics): Law simplicity of complex systems. The law of conservation of uncertainty (information). Law endpoint characteristics of complex systems. Ashby's law of requisite Variety. Gödel's incompleteness theorem. The law of complexity systems. The initial heterogeneity of the Universe. Evaluate the growth of heterogeneities as the Universe expands. Expansion of the Universe – the cause and source of information generation. The volume of information generated by the gravitational field. Curvature of space creates uncertainty (information). The volume of information generated in the moving coordinate system. The volume of information generated in the rotating frame.

**Till Haenisch**

Professor, BW State University, Heidenheim, Germany

## **The Case for a Functional Internet of Things**

Internet of Things appliances like light switches, thermostats or other kinds of sensors or actors are especially sensitive to software errors. While minor malfunctions may be acceptable, software bugs might lead to security problems, which cannot be ignored, since they will have consequences in the real world.

Today's method of keeping systems (like operating systems) secure is to patch them permanently to close all discovered bugs. The necessity to patch on a regular base combined with the long lifespan of components like building automation systems results in a configuration management problem that is not acceptable in many settings like private households. It is practically impossible to test systems composed of that many components with different hardware and software versions, so constant updates will sooner or later result in interoperability problems. Imagine a 20 year old doorbell running windows (that means Windows 95 or even older).

Because regular updates are not possible, it is desirable to keep the number of bugs close to zero. One way to lower the number of bugs is small code size and low complexity: Fewer lines of code and lower coupling, especially as few side effects as possible means fewer bugs.

From a high level perspective the data processing in an Internet of Things application can be considered as a set of mathematical functions operating on a stream of values. Each function creates a new stream of values (which might be processed by another function). That means, that the complete functionality can easily be described and programmed in a functional language like elixir, Erlang or Scala.

The key to a successful longterm perspective is very simple, reliable software and not a monoculture of complex operating systems and middleware stacks. And that means functional programming languages.

In this paper a case study is presented which shows that the code size and complexity for a systems which collects and interprets sensor data in an IoT scenario can be reduced using functional programming techniques.

**Lorna Hamilton**

Senior Lecturer, University of Edinburgh, U.K.

**Dimitra Tsakalou**

Graduate Student

&

**Jane Brown**

Senior Research Fellow, University of Edinburgh, U.K.

## **Constructing Inclusive Communities in the Greek Context**

In this paper, we have sought to utilize the case study approach and narrative identity theory to help conceptualize the complexity of proposed inclusive communities within the Greek context. This has significance in terms of the way in which case study is constructed and understood within a narrative framework, as well as in terms of the use of narrative institutional identity.

Narrative identity theory is normally applied to individuals and reflects identity as a dynamic telling and retelling of a sense of self in relation to positionality in the present, while drawing on interpretations of past and future selves. Additional dimensions influencing this kind of narration may include those of family, community, policy, faith etc. but these may also link into larger metanarratives such as inclusion and egalitarianism. In applying narrative identity theory to an institution, it is conceptualized as a dynamic and fluid entity, shaped and reshaped by individuals, groups, policies, communities and the varied interactions, tensions and struggles that inevitably form a part of this on going process. Drawing on instrumental case studies of 3 urban Greek schools, this paper will outline the ways in which the conception of narrative institutional identity can be used to explore and understand the construction or otherwise of inclusive communities.

**Orhan Hanbay**

Deputy Manager, Adiyaman University, Turkey

&

**Yakup Tekin**

Primary School Teacher, Primary School in Mersin, Turkey

## **Teacher Survey on Reading Competence and Reading Competence Promotion in Turkish Primary Schools**

Reading competence is the key to our today's ever-changing society, because only those who can read, participates actively in the daily life and can expand their knowledge on a daily basis. In other words, reading competence is a prerequisite for independent learning, which has an important meaning for education policy discourse. Therefore, many countries are trying to make progress in schools on this issue.

Given the above information, the aim of this study is to present the estimates of primary school teachers in Turkey for reading competence and reading competence promotion in Turkish primary schools. This empirical study on the illustrated aim includes both quantitative and qualitative research.

The sample of the study includes a total of 160 primary school teachers (female 68 and male 92) from 15 different cities of Turkey.

The data were collected using an online survey. Outside of classification issues such as age, gender, etc. consisted of the questionnaire 3 scaled questions with Likert scale 10, 4 closed and 2 open, a total of 9 questions. This questionnaire includes questions such as, for example, whether teachers see any effort for reading competence promotion in the Turkish education system (Question 1), how high they consider the reading competence level of students (question 2), or whether an education program of the teachers in the area of reading competence is necessary (Question 6).

In the data analysis, both statistical (t-test for the 3 scaled responses) and qualitative (responses from 2 open questions) analytical techniques were used. The analysis was performed by gender.

The results showed that there was a effort for reading competence promotion ( $X = 5.29$ ). The mean values for the female participants is lower ( $X = 4.54$ ) than male participants ( $X = 5.84$ ). And this differentiation is statistically significant ( $p = 0.002$ ). Even with the answers to the second question, the result was similar (female  $X = 3.88$ , male  $X = 5.06$ ). And finally, 93% of the participating teachers believe that an education program for teacher is necessary in this context. The result of the other questions were similar.

**Sandra Harris**

Assessment Coordinator College of Social and Behavioral Studies,  
Walden University, USA

&

**Rebecca Jacobson**

Adjunct Faculty, Capella University, USA

## **Relationships between Student Expectations, Demographic Characteristics, and Academic Background of Students in the Online Environment**

Online education has experienced tremendous growth in the past 10 years. Despite the increasing popularity of online courses, colleges and universities face challenges in maintaining the efficacy of online education. For instance, Chief Academic Officers (CAOs) cited retention in online courses as a major concern of their institutions. In 2012, 73.5% of CAOs reported retention as a major concern for their online courses and programs. A number of studies have addressed factors related to student attrition, persistence, and retention in online courses. However, few studies have examined how student expectations influence their persistence and academic performance in the online learning environment.

The purpose of this study is to investigate the relationships between student expectations, student demographics, and the academic background of students in the online environment. Data collected for this study will be used to address the following research questions:

**Research Question 1:** How are demographic variables related to student expectations of various aspects of the online learning environment?

**Research Question 2:** What are the relationships between certain academic indicators and student expectations of various aspects of the online learning environment?

This study will utilize a quantitative research design to determine the relationships among the variables of interest. Quantitative research is applied in order to explain, authenticate, or validate relationships. The research will be non-experimental because the researchers will not implement the major requirement of random assignment of participants that is needed in a true experimental design.

The survey method will be employed to collect data. The Student Expectations of Online Learning Survey (SEOLS) will be the primary data collection tool in this study. The SEOLS is a 44-item instrument that contains 7 scales. The SEOLS measures student expectations of the following aspects of the online learning environment: proficiency with

technology and proficiency with the course delivery system; factors associated with success in the online environment; expectations of the online Instructor, expectations of course content, expectations of social interactions; and features of the course navigation. The demographic data will consist of the following: gender, age, marital status, employment status (full time or part time), and number of hours worked per week. The academic background data will consist of the following: number of online courses attempted, number of online courses completed with a grade of C or higher, self-reported GPA, degree being sought, whether or not a previous degree has been completed online.

A purposive sampling scheme will be used to recruit participants for the study. This sampling procedure is used when a researcher has a specific purpose for the research and is interested in specific groups. The researchers are specifically interested in assessing the relationships between participants' expectations of various aspects of the learning environment and how those expectations are related to demographic characteristics and academic background.

Data will be analyzed using descriptive statistics and multiple regression analysis. The researchers will use SPSS to analyze the data. Data will be collected from participants who are enrolled in online courses. Individuals must be 18 years or older to participate in the study.

Expectancy theory is the theoretical foundation for this study. Expectancy theory provides a framework for explaining how future actions are predicated on the degree to which expected outcomes are met. In the context of retention in online education, expectancy theory would posit that the degree to which a student's expectations are met in online courses influences whether the student will persist in taking online courses.

Past research has revealed that student outcomes are a function of the expectations they have for the courses that they take. The significance is that this study will generate knowledge regarding how student expectations are related to student characteristics and academic background. Professionals could then use this information to address student expectations in online courses to help students properly effectively manage those expectations so that they can achieve academic success.

**Leonie Gysbeertha Higgs**

Associate Professor, University of South Africa, South Africa

## **A Critical Overview of the Place of Theory in the Discipline of Philosophy of Education**

The aim of this paper is to discuss critically the place of theory in the discipline of Philosophy of Education at the University of South Africa.

Theory plays an important role in determining the nature of teacher education. It is, therefore, necessary to acknowledge the importance of theory in teacher education, and also ascertain the influence that theory has on practice in teacher education practice. I would argue that theory seeks to emancipate teachers from their dependency on practices that are the product of ideological and political constructs while at the same time allowing teachers to critically reflect on their practice in the classroom. It does this by means of critical modes of enquiry that are aimed at exposing and examining the beliefs, assumptions and values implicit in ideological and political agendas which often determine how teachers organize their experiences and practices in the classroom. In the interests of best practice, it is therefore necessary for teachers to acquire the necessary theoretical astuteness, in order to interact critically with those cultural, political, social and economic concerns which impact either positively or negatively on their classroom practice.

**Philip Higgs**

Emeritus Professor & Research Fellow, University of South Africa,  
South Africa

### **Can Education be Democratic?**

In this paper I argue that the concept democratic education should not in any uncritical fashion transpose the concept of political democracy onto the distinctly different sphere of education. Education as a social sphere in which wisdom and knowledge are distributed has its own appropriate internal conditions. Consequently, it provides material arrangements for democratisation that are different from those appropriate in the sphere of politics. The concept democratic education should therefore not be confused with political democracy with its constitutive element of equality. This means that any notion of democratic education, should be stripped of any ideas of romantic equality.

**Roger Hill**

Professor, University of Georgia, USA

## **Robotics Curriculum for Integrated STEM Instruction**

One of the current trends in education for US students is increased emphasis on science, technology, engineering, and mathematics (STEM). The National Academy of Engineering and the National Research Council in the US published a report on integrated STEM in 2014 and it included a framework with goals for integrated STEM instruction. Building STEM literacy, developing a STEM-capable workforce, and boosting interest in STEM were all included.

At the University of Georgia in the US city of Athens, Georgia many of the undergraduate students studying to be elementary teachers take courses that focus on integrated STEM instruction. They are taught that students need to have successful experiences with STEM content during early years of education and explore possible STEM careers. Girls as well as boys are encouraged to consider careers like engineering.

The use of hands-on robotics activities where elementary students assemble and program autonomous robots is a relatively new content area being used in some US elementary schools. A research and curriculum development project was funded and undertaken during the 2014-2015 academic year. The result was a unit of instruction for 5th grade students using robotics to support integrated STEM learning. Research was conducted to evaluate the effectiveness of the materials and to guide revisions. The completed unit will be available during the summer of 2015 under a Creative Commons license so that teachers can download the materials and use them without cost.

The proposed presentation for the 17th Annual International Conference on Education will report the results of this research, explain how barriers to use of robotics as a part of the regular school curriculum were overcome, and provide an overview and description of the materials along with guidance for downloading the teacher guide and student booklet. Plans for future research and curriculum development will also be presented.

**Sun Yu Hon**

Assistant Lecturer, The Chinese University of Hong Kong, Hong Kong

### **Experimental Research on Different Cultural Background of Composition with Pictures Description in Chinese Learning as a Second Language**

What is the role of composition with aid of visual effects of pictures on different culture background in Second Language Acquisition? What is the efficient mode for SLA learners to improve their ability in expression? Through composition with aid of pictures we provide a platform for SLA learners to raise their level of ability in expression.

This experimental research compared the effectiveness of different types of pictures in building up the ability in composition of learners. The findings show that comparing with one single individual picture, serial pictures can help intermediate learners composing a story more effectively. Learners with different culture background show diversification understanding of pictures description. Second Language Learners require understanding of cultural background, narrative, logical, and comprehensive expression abilities, creative imagination and large quantity of vocabularies to support their description of a single individual picture; whereas with serial pictures, learners can describe sequence of a story through details shown visually in the pictures. Therefore, composition with aid of serial pictures effectively raises the ability in expression of intermediate Second Language Learners.

**Fazilah Husin**

Senior Lecturer, Putra University of Malaysia, Malaysia

## **Evaluation on Solo Performance Module for Language Teaching & Learning**

This paper is about Solo Performance, a subject under Performing Arts Minor Program offered by Faculty of Modern Languages and Communication, Putra University of Malaysia. The first batch of this program was graduated in the year 2008. A part of the module including playwriting, test and task, and a solo performance or single acting. The tasks including planning and organizing the show themselves. This paper aim to explain the evaluating process of the Solo Performance's module for use in language teaching and learning. The evaluation is done by the lecturer of foreign language and communication at the Faculty. The evaluation approach is according to Russell (1974) with the attendance of the language lecturer (s) as an expert in the area that targeting to be applying the module. At the briefing level, the evaluator was impressed with the module because of the practicality and suitable to apply in language teaching and learning especially for the speaking and writing.

**Carlos Iberico**

Head, Research Department of the Institute of University Teaching,  
Pontificia Universidad Catolica del Peru (PUCP), Peru

&

**Julio Del Valle**

Director, Institute of University Teaching, Pontificia Universidad  
Catolica del Peru (PUCP), Peru

## **Students and Teachers' Perceptions on the Most Valued Teaching Practices**

The Institute of University Teaching and the area of Studies for Academic Improvements of The Pontifical Catholic University (PUCP) started a research project, whose aim is to identify and describe students and teachers' perceptions on the most valued teaching practices in order to learn. Two samples were used for this study: 352 undergraduate teachers and 2634 undergraduate students from 12 different faculties participated responding to a questionnaire related to different teaching practices. The instrument was a questionnaire based on focus groups with students and teachers' interviews. It established some criteria to identify common teaching practices in all the campus. The information was organized in the following areas: class development, planning, assessment, and communication outside the classroom and university. Each of them presented a number of teaching practices that should be valued in a scale from 1 to 10, considering its importance in order to promote learning. Results showed that teaching practices assessed in the questionnaire were considered important by teachers and students, since they favor students' learning. Most of the practices were valued between 7 and 10 in the 10-point scale (90.7 % of the teaching practices assessed by teachers and 78.7% of the teaching practices assessed by students). Some new research lines are suggested such as teachers' conceptions on learning and assessment in higher education.

**Vessela Ilieva**

Associate Professor, Utah Valley University, USA

## **A Model for Teaching Mathematics through Robotics Activities in Elementary School**

Children and adults who proclaim dislike for school mathematics often state as a reason the disconnect of their mathematical learning from real life. When studied out of context, mathematical concepts and formulae challenge learners as they struggle to connect the abstract representation to what is familiar and understandable. Children as young as early elementary grades start forming such negative attitudes, and with lack of meaningful instruction, retain them throughout their school career and often for lifetime. In our highly technological world, many existing and future occupations require advanced quantitative literacy tied with its applications in science, technology, and engineering. Educational structures in the United States promote accordingly a strong emphasis on these areas from elementary school through college. Such initiative requires a teaching workforce trained and confident in engaging young learners in science, technology, engineering, and mathematics (STEM) topics and activities. Teacher education programs need to respond to this need by seeking and implementing innovative approaches that prepare future teachers to teach and integrate STEM subjects in their instructional practice in ways that trigger increased student interest and participation.

This presentation introduces a project that addresses this critical educational need through an implementation of a STEM based after school elementary robotics program. The program partnership involved a School of Education, a neighboring school district, and a local company. The local business provided Lego Mindstorm robotics kits and trained the university students who were primarily elementary education majors how to program and use them, and how to use this knowledge to teach curriculum-based mathematical concepts to elementary age children.

The outcomes of the program were multidimensional, as its effects reflect on two groups of participants: elementary students and pre-service teachers. The pre-service teachers increased their knowledge and experience related to teaching mathematics and STEM integration by using robotics. They had a professionally enriching experience to include on their resume and further their careers. Elementary students were engaged in hands-on experience in STEM subjects integrated in the design, programming, and building of functioning robots. A sought outcome was also their increased interest in and understanding of STEM subjects and occupations. The value and impact of the project

were further enhanced by the effective collaboration between a University and its School of Education and a local school district and a local business, which strengthened the relationship with the community and reinforced the role of such partnerships for educational enrichment and growth.

**Sadiq Ismail**

Associate Professor, United Arab Emirates University, United Arab  
Emirates

## **Secondary School Students' Reading Anxiety in a Second Language**

Research has already made great contributions to our understanding of the relationship between language learning and language learning anxiety. However, research in the area of foreign/second language reading anxiety is still limited and we still need to understand it in depth. The present study had made an effort to broaden our understanding about English reading anxiety as it is seen by the learners themselves. Its purpose was to highlight students' perceptions about the sources of English language reading anxiety. Anxious students are seen as those learners who demonstrate lack of learning strategies, experience, skills and confidence. Their problem is elevated from developing a negative feeling and reaction to the learning task. When reading in English, they continuously think about the negative experience of the task more than the positive ones. Second/foreign language classrooms should not be always thought of as ideal environments that are free of any kinds of learning anxiety.

An appropriate level of second/ foreign language learning anxiety may help in facilitating the process of second/ foreign language learning. Nevertheless, many studies have reported that learning anxiety has negative effects on students' language learning experience. The existence of anxiety in language learning classes directs teachers and educators to facilitate it in order to help learners develop positive feeling toward the task of learning how to read in English. Different studies examining students' language proficiency level and teachers' roles revealed that learners with a higher language proficiency level tend to have lower language learning anxiety, and teachers' supportive intervention may assist in increasing motivation and decreasing learners' language learning anxiety

Developing an appropriate competence in reading in English as a second language is a key factor for subsequent academic success. This study investigated second language reading anxiety of secondary school students. A questionnaire was distributed to 72 female students and focus-group interviews were conducted with 19 volunteered students. Generally, the results of the study reported that students' major sources of anxiety are related to both strategies and language problems, such as the lack of vocabulary and grammar background knowledge. The majority of findings revealed statistically significant differences between students in the science and art tracks in favor of

science students. Both quantitative and qualitative Results showed that students in the science track possess lower reading anxiety level than their counterparts in the art track. Science students also appeared to have more positive feeling about their reading skills and language proficiency. The results of this study might have valuable implications for teacher training, language improvement, enhancing reading strategies and individualized learning. Results may help decision makers in taking appropriate decision to advance the teaching of English in general and reading instruction in particular. Teacher trainers and/or educators may use results from this study in guiding them to prepare and deliver effective teacher training programs for different teachers who are teaching students with multiple needs, intelligence and backgrounds. Curriculum designers and materials developers may look at those results to guide them when choosing and/or developing materials for classroom use.

**Hemant Jain**

Roger L. Fitzsimonds Distinguished Scholar and Professor, University  
of Wisconsin Milwaukee, USA

**Service Oriented, Event Driven, Smart Cyber - Agent (SES)  
Approach for Real Time Management of Global  
Manufacturing Enterprises**

With the explosion of micro to nano-scale embedded devices and sensors in all aspects of manufacturing, the development of control software that takes advantage of the real time data generated by these devices to support real time decision making in a global manufacturing enterprise becomes extremely complex and critical. While the time scales for control decisions are shrinking, the scale and complexity of the systems are increasing. The large volume of data, real time processing requirements, and complexity of the overall operation requires that the software systems are designed and executed in a highly distributed manner. The processing of the data and routine decision making needs to be fragmented at the micro level yet still is coordinated to enable a human decision maker to monitor the operations and take actions.

Based on the latest developments in service oriented architecture, complex event processing, and smart cyber-agent technologies, this research seeks to develop an approach called SES for the composition of systems for real time management of global manufacturing enterprises (GMEs) from existing agents and services. Specifically, we focus on the problem of identifying the appropriate level of granularity for smart cyber-agents, the delegation of appropriate decision making authority and responsibility to these agents, and definition of services along with standard interfaces provided by the smart agents. This research is part of a multi-year effort which is expected to result in a working prototype of the system and development of capabilities to address issues related to advanced manufacturing based on the latest developments in information and communication technologies.

**Kamini Jaipal-Jamani**  
Associate Professor, Brock University, Canada  
&  
**Candace Figg**  
Associate Professor, Brock University, Canada

## **A Study of Gamification as an Instructional Strategy to develop Pre-service Teachers' Knowledge of Technology-enhanced Teaching**

The current generation of students exhibits a preference for self-directed and personalized learning experiences using laptops, classroom chat rooms, games, digital media creation tools, text messaging, mobile applications, and personal mobile devices (Project Tomorrow, 2013). This shift in how learners perceive the learning environment calls for a shift in teaching pedagogy to meet the learning needs of these students. This paper discusses how *gamification* was used in higher education as an instructional strategy to meet the needs of the digital learner. Gamification, as defined by the *NMC Horizon Report: 2013 Higher Education Edition* (2013) is "the integration of game elements, mechanics, and frameworks in to non-game situations and scenarios" (Johnson et al., 2013, p. 20). The online *GAMIFIED TPACK Teacher Quest* (<http://www.handy4class.com/tpack-teacher-game/>) was developed using Wordpress, and the following game elements were incorporated into the Quest: tasks to complete to a mission badge, a reward badging system for achievements, accumulating points for earning badges, in-class collaborative and cooperative experiences to complete mission tasks, and use of a knowledge map (*Gamified TPACK Teacher Quest* Tracking Sheet) to guide 'game' play. To investigate the effect of the gamified learning environment on pre-service teachers' learning, a qualitative study was conducted, guided by the following questions:

1. In what ways did gamification influence how pre-service teachers learned with technology?
2. How did gamification develop pre-service teachers' understanding of how to teach with technology (or TPACK knowledge)?

Data were collected from 133 pre-service teachers enrolled in six different sections of the technology methods course. Data sources included email interviews with the instructors teaching the technology methods course in which the *Quest* was played, researcher field notes from weekly instructor meetings, instructors' records of student comments, course artifacts created by pre-service teachers and shared by instructors with permission, and a Socrative questionnaire filled in

by pre-service teachers about the design of the *Quest* and using the *Quest* for learning.

The findings of the research study conducted on the gamified technology methods course indicated that gamified learning promoted the development of TPACK knowledge. Pre-service teachers showed their understandings related to how content, pedagogy, and technology interact to promote learning of subject matter content through oral and written articulation (in artifacts created, survey responses, and reflection comments). As well, the findings suggest that pre-service teachers were engaged and motivated by the application of game elements to course content or learning activities that students found mundane or less engaging. As such, gamification may be an effective instructional strategy for motivating higher education students who routinely prepare for course instruction by reading textbooks and background materials. However, the findings from this study describe one instance of how gamification was used as an instructional strategy in a specific context with a specific population of pre-service teachers; findings are therefore not meant to be generalized to a larger pre-service teacher population. The findings provide guidance for teachers and technology educators on how to design courses incorporating gamification as an instructional strategy appropriate for meeting the needs of digital learners. Issues concerning design and implementation as it influenced student engagement and learning are highlighted, and recommendations are made for course development.

**Adeeb Jarrah**

Assistant Professor, United Arab Emirates University, United Arab  
Emirates

### **Investigation of Preservice Teachers' Beliefs about Learning and Teaching of Mathematics: The Case of Jordanian Universities**

The purpose of this study was to investigate Jordanian preservice teachers' beliefs toward learning and teaching of mathematics. The specific beliefs investigated in this study are among the most studied of all beliefs about mathematics. Based on the items in the instrument which was used in this study, there were three beliefs about mathematics that are of primary interest. Specifically, the researchers in this study tried to determine to what degree Jordanian student teachers' believe that:

1. Some people have a mathematical mind, and some don't (mathematical Mind).
2. Mathematics is about memorizing.
3. Mathematics is male domain.

Two questionnaire surveys consisted of 22 statements were used for data collection. The sample of the study consisted of 286 preservice teachers enrolled in 3 universities in Jordan, two public and one private. 86.5% of the participants were female. The results of the study showed that there were significant relationships between preservice teachers' beliefs about learning and teaching of mathematics and certain participant's characteristics. Specifically, there was negative relationship between student teachers' beliefs about the existence of "mathematical mind" and age of the participant and the number of methods courses already taken by the participant.

In general, the results of the study showed that preservice teachers' beliefs were influenced by factors such as participants' age, grade level, their parents' educational level, parents' attitude about mathematics, participant's level of mathematics achievement, and the number of mathematics methods courses already taken.

**Jaime Jimenez**

Scientist, Universidad Nacional Autonoma de Mexico, Mexico

**Alejandro Barragan**

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**Monica Velasco**

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&

**Ramon Marin**

Teacher-Researcher, Universidad Iberoamericana, Mexico

### **Alternative Learning and Research Leading to Development**

We wish to report an experience of learning and research not following the traditional track, which is successful in preparing individuals to get a doctoral degree and, while getting the credentials, engage in research related to the needs and desires of the regions where they live. The Centre for Innovation and Educational Development (CIDE) is a Mexican private organization created by academics working in public universities, in an effort to contribute to the application of science to solve local/regional problems. CIDE emerges from the recognition that Mexico, as well as many countries of the economic south, need more scientists, since the independent development of societies in the world is not possible without the creation of a critical mass capable of solving the scientific and technical problems which allow them to grow. CIDE aims to create "regional scientific communities" to help reduce the deficit of scientists in the country. The model combines: Learning based on problems (PBL), self-study as well as group-study, flexible curriculum, *intensive use of ICT's*, and the acquisition of generic competencies for research. The emphasis is changed from *teaching to learning*, based on personal and group study carried out by the students concentrating on specific topics of research. The individual learns to do research as part of a general process of learning. CIDE has no physical infrastructure. Professor-advisors do not receive a salary. Students and advisors meet once a month for two full days to socialize knowledge and advance the students' projects. Students usually already teach full time in educational institutions. CIDE attracts students that are unable, for different reasons (age, workload, family obligations), to join conventional PhD programs. This leads to the formulation of individualized programs. CIDE has proved that the preparation of highly qualified, motivated scientists could be done with very limited resources.

**Hamadullah Kakepoto**  
Professor, University of Sindh, Pakistan

### **Social Issues of Fareast & Southeast Asia Region with Special Focus on Pakistan**

Social science is bedrock and mother of all disciplines. It is humanity and humanity has roots in every sphere of life. The domain of social science is humans and humans due to special peculiarities given for granted from Almighty Allah cross all boundaries of knowledge what in modern technological world is called physical science. Physical science without social science is just like a child without eyes and legs. Physical science invents bomb and scientists focus its importance due to its utility to defeat the enemy with widespread destruction. A social scientist will tell the world the gravity of situation where bomb is bombed. A doctor can cure any particular disease but a social scientist can tell the inner diseases which are untraceable by doctors. Unfortunately, since last many decades social science field has remained neglected and less profiteering field. A child in Pakistan from his very birth is told that he has to be educated in such a way that he dreams to be a doctor, engineer or a businessman. That will be unfortunate if he gets admitted in any social science field. That is the socialization and first step from where the directions and fields are being separated. At government level huge money is spent on physical sciences rather than step mother treatment is being given to social sciences. Local culture further aggravates the situation taking physical science subjects at top at the cost of social science subjects. Present paper will highlight the problems and will suggest viable suggestions.

**Leda Kamenopoulou**

Senior Lecturer, University of Roehampton, U.K.

**Jorun Buli-Holmberg**

Associate Professor, University of Oslo, Norway

&

**Jan Siska**

Associate Professor, Charles University, Czech Republic

## **The Impact of Post-Graduate Education on Teachers' Understanding of Inclusion and Special Education**

In this paper, we report on ongoing research exploring the impact of post-graduate education on teachers' understanding of Inclusion and Special Education. Participants in the research were education professionals undertaking a 16-month masters course on Special and Inclusive Education (SIE) that is jointly offered by three European Universities.

Methods included the administration of a questionnaire at the beginning of the course exploring participants' pre-understanding of the concepts 'inclusion' and 'special education', their pre-understanding of the relation between the two concepts, as well as their reasons for choosing the course and their overall expectations from the course. Methods also included focus group interviews in the middle of the course exploring the students' process of development as they progressed through the course, and the completion of a questionnaire at the end of the course exploring the course learning outcomes from the participants' point of view.

Preliminary findings reveal differences in students' pre-understanding of Inclusion and Special Education and suggest that their understanding of the concepts improves even after the completion of one module on SIE, which is in line with previous literature. Hence findings from this research thus far support the positive impact of further teacher education and training on Inclusion and Special Education, and are very pertinent in light of current concerns about the education of teachers on Inclusion and Special Needs/Disabilities internationally.

**Judita Kanjo**

Research Associate, University of Education Ludwigsburg, Germany

## **Gender and Literature Didactics. How Does the Choice of Texts Affect Reading Competence?**

After the first shock of unexpectedly poor performance of German students during the PISA assesment in 2000, especially at the area of reading comprehension, a long-lasting discussion about possible solutions has started. One of the general findings, namely the (at first sight) significantly lower reading competence of male students compared to female ones sparked a special dispute about the German school system being a female domain where not only most teachers are female, but in literature classes both the text selection and methods used would seem to favour only girls's interests and therefore boys's motivation to read is (supposedly) significantly decreasing. The general reading motivation is – according to relevant studies – greatly linked to the level of text comprehension, so this issue certainly needs special attention.

One of the suggested solutions in this context was to allow girls and boys reading different texts that might rather suit their reading preferences. It can be argued that such an approach does not only fail in the sense of not necessarily meeting the individual student's reading interest but, above all, this way one can generate an unwanted effect that Gender Studies would describe as „doing gender“. Such a creation and determination of typical gender roles and stereotypes should be avoided according to education principles and curricula in Germany in order to guarantee every individual the freedom of developing their personality in the best possible way. The existence and dissemination of gender stereotypes at schools are despite of efforts for their prevention evident. Therefore such an obvious relapse, that even increases the unwanted effects instead of minimising them, can certainly not be considered as the answer to this problem.

This paper suggests different didactical and methodical solutions that account for the individual needs of every student (male or female) and might especially encourage male students to discover reading as a rewarding and significant cultural technique. These strategies include selecting texts that might potentially be interesting for both genders, allowing a wider range of texts that can be chosen from individually without an obvious gender attribution, and implementing methodical steps that could potentially spark higher interest of male students without discouraging female ones.

**Orly Kayam**

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**The Language of Obama: A Rhetorical Analysis.  
An Examination of the Emotive Rhetorical Devices  
appearing in Barack Obama's 2008 Campaign Speeches  
Leading up to his Inauguration**

The goal of this presentation is to teach effective use of rhetorical devices by examining Obama's campaign speeches.

America, the land of opportunity, where any little boy can grow up to be president. Until 2008, that little boy had to be white and preferably the son of a wealthy and well-connected family. The fact that Barack Obama became America's first non-white president was a major glass-ceiling breakthrough but even more significant was how he managed to market himself to the American people as the face of 21<sup>st</sup> century America. In this presentation, I will examine the rhetorical devices that Obama used to convey his message and convince the American people to elect him as their 44<sup>th</sup> president.

His brilliant use of rhetoric made Obama the face of 21<sup>st</sup> century America. His ability to portray himself as the embodiment of the American dream and to relate to the stories of other Americans brought many to support his candidacy. In this presentation, I will discuss of his use of personal narrative, stories, repetition, metaphors, clichés, audience involvement, and humor with illustrative examples from Obama's most memorable speeches.

This presentation is based on my research and my book Obama's Message – An Examination of Political Rhetoric.

**Carolyn King**

Programme Leader, University of Central Lancashire, U.K.

### **Nip & Tuck: The Humanities and Social Sciences under the Knife**

The British government has cut funding for teaching the humanities and social sciences by 100%. This monumentally foolish decision directed by Lord Browne – the former CEO of BP, who arguably has no connection, experience or qualifications to oversee educational provision – was implemented by the Coalition. Browne's Report argues that stem subjects; science, technology and business are prioritised as strategically important subjects for Higher Education, securing a sustainable future for them. Browne here seems to be suggesting that encouraging students to think, engage with critique, analysis and evaluation (as the humanities and social sciences do) is harmful to the longevity of educational provision. This is not only senseless it is restrictive to development opportunities and employability enhancement for young people. To imply that art, culture, language, history, philosophical and theological debate, interfaith dialogue etc. are irrelevant to society is absurd.

This ill-considered and very short sighted decision is extremely dangerous long term, and will have far reaching consequences. Indeed, we are already seeing the repercussions as consumerism and marketization take priority over education; Britain's universities fast becoming the most expensive in the world – those that have not had to close down – impacting upon the social and cultural experience of young people and also their social capital and mobility.

This paper discusses the implications of funding cuts to the humanities and social sciences and argues that government utilitarian reasoning is radically short-sighted. The humanities and social sciences are crucial to understanding society – past, present and future – and the complexities of relationships; local, national and international. Indeed, the humanities and social sciences are the foundations of democracy and therefore essential to understanding economies. Perhaps something Browne should consider when he assumes the power of a would-be 'cosmetic surgeon', and rather than attempting a procedure he is ill equipped to deal with – cutting funding from crucial sections of education—he should leave to the decisions to educationalists.

**Andrea Koblizkova**

Head of Language Centre, University of Pardubice, Czech Republic

## **Central Role of Intercultural Competence to the Concept of Internationalization in Tertiary Education**

The time has come to make the role of language learning and intercultural training central to this issue. The role of language instruction needs to be shifted from the traditional concept of learning an empty format of communication with the utmost attention paid to lexico-grammar and phonetics to a new and complex concept of rhetoric firmly rooted in a respective culture. Seidlehofer in Jenkins, Cogo and Dewey (2011) explains the key point rests in a move away from a pure identification of linguistic aspects forming the means of communication towards a more holistic approach, which moves from a surface description of particular features to an explanation of the underlying significance of the forms: to ask what work the utterances do, what functions they are symptomatic of. Cogo and Dewey (2006) see that as attention paid to the pragmatic motives and functional meanings involved in their use.

The aspect of pragmatics covers the significance of context as recent research into English as lingua franca pragmatics showed orientation towards mutual understanding regardless of correctness (Firth 1996). This genuine focus of pragmatics on resolving strategies leading to maintaining understanding as the ultimate goal resulted in numerous authors' strive for identification of productive resolving techniques among which are repetition (Lichkoppler 2007, Waterson 2008, Cogo 2009), clarification and self-repair (Mauranen 2006), paraphrasing (Kaur 2009), let it pass strategy, and topic change (Firth 1996).

The internationalization can only be carried out if friendly and welcoming conditions are established and maintained in terms of defining a common ground and creating an effective social exchange. A prerequisite of such conditions rests in setting an open communication culture, adhering to safe communication conventions of the language of mediation, using effective communication and clarification strategies, manifesting politeness, solidarity and willingness to communicate.

All these phenomena exist as an integral, however, also as a hidden part of any language system and their concepts and degrees of manifestation vary greatly. The new language learning/teaching concept needs to address all the above listed phenomena and reduce space for miscommunication to make the internationalization smoother and truly enriching. As Brown and Yule (1983) claim there are two main functions of a language, transactional (information transferring)

and interactional (maintenance of social relationships), consequently the politeness concepts differ with the degree of the dominating function in the respective culture, which, without a contextual analysis in intercultural training may lead to wrong presumptions and prejudices about communication counterparts. The effort invested in internationalization processes may thus easily fail to maintain a successful scientific or educational exchange.

The study presents the case of a complex three-leg system of intercultural and language education covering both the theoretical and practical exposure of learners to intercultural communication through English while revealing specific benefits and bottlenecks of such a scheme. The case reflects induction principles of the intercultural training; compares cross-cultural and intercultural theories of Hofstede, Trompenaars and Lewis as well as provides a brief insight into an authentic intercultural communication exchange between international university students through a video-conference excerpt.

**Helena Korosec**  
Senior Lecturer, University of Ljubljana, Slovenia

### **Creative Drama: Between the Process and the Project**

Culture and the arts are essential components of a comprehensive education leading to the full development of the individual (Road Map for Arts Education, 2006). Education with and through the art is a successful method of teaching and learning, suitable for all fields of the curriculum. It is not only a successful method, but also necessary in contemporary education, which not only strives for knowledge but also for creative, relaxed children, bursting with ideas, wishes and skills for problem solving. This paper presents the roll of Creative Drama acitivities in preschool education. Generally, the goal of Creative Drama is to prepare a formal presentation for the audience. However, for the teacher what is important is the process in which these activities take place. Drama becomes a medium for expressing the child's understanding of the world, literature, nature, social relations ... During the child's creative drama play, the teacher sees the puppet, masks or play as a medium for communication and personal interaction. For a child, the greatest motivation is the preparation of the puppet show, during which he quickly achieves the goals that were set. At the same time, the teacher focuses on the process, in which he constantly monitors the child and motivates him.

The paper will present the results of the research in the standpoints and practices of preschool teachers in Slovenia in their Creative Drama activities and how their approach to conducting puppetry and drama activities changes in the course of their education. In this paper we focus on the starting points and the roll of the teacher in Creative Drama activities. It was established that the education in Creative Drama led to a positive change in attitudes to use of puppets and drama, with the practice of drama activities also changing towards the developmental approach.

**Yvona Kostelecka**

Researcher, Charles University in Prague, Czech Republic

&

**Tomas Kostelecky**

Researcher, Czech Academy of Sciences, Czech Republic

### **Factors that Influence the Acquisition of the Czech Language Skills by Children of Foreigners at Czech Elementary Schools**

The Czech educational system in modern post-war history has not had a great deal of experience in the integration of foreign children. Following the fall of the Iron Curtain however, the number of foreign immigrants began to rise, with a particularly sharp increase following the accession of the Czech Republic into the European Union. This caused the sharp increase of the number of immigrant children in the education system. One of the serious problems faced by schools consists in their inability to determine their language skills of foreign children enrolling school. So far, the language skills of children entering school were not tested in a standardised manner which would enable more objective comparisons of progress over time, or comparisons with other children of the same ethnic group and across language groups. The majority of children in schools were “tested” more or less intuitively, based on talk of the foreign pupil with their Czech language teacher or another teacher. In contrast to that, in many countries (e.g. USA or France), there are standardised tests of language skills through which the language abilities of children of compulsory school-age are measured. In the absence of such test in the Czech Republic we have developed two sets of diagnostic tests which are able to measure general language skills of children with a different mother tongue in Czech primary schools according to the Common European Framework of Reference for Languages (further CEFR). This diagnostic instrument allowed us to measure how the children of foreigners make progress in the acquisition of the Czech language in both receptive and productive language skills, and which factors influence this process. The aim of this paper is to show the results of such pilot testing.

**Ray Langsten**

Research Associate Professor, American University in Cairo, Egypt

&

**Fatma Said Mahrous**

Research Assistant, American University in Cairo, Egypt

### **Track and Sector in Egyptian Higher Education: Who Studies Where and Why?**

Egypt has long had three tracks in higher education: universities, higher institutes, and upper-intermediate institutes. Growing demand for higher education in combination with severe financial constraints in the public sector, have forced Egypt, like many other countries, to turn increasingly to the private sector to provide education. As private higher education has grown, concerns have been raised about equity of higher education opportunities. This research uses data from the 2009 Survey of Young People in Egypt (SYPE) to examine who studies in the different tracks and sectors of higher education. What are the forces that determine where students study? We begin by looking at the determinants of the transition from secondary to higher education. We confirm previous findings that secondary track placement is the main determinant of the transition to higher education. Family wealth and other background characteristics play significant, but less important roles. We then describe the students who attend institutions in different tracks and sectors. Overall, females outnumber males in higher education. In universities and higher institutes females are a majority in the public sector while males are an even stronger majority in the numerically smaller private sector. Students from wealthy families are disproportionately represented in all three tracks, though the wealth effect is particularly strong in universities and higher institutes. As expected, in all three tracks students in the private sector come from wealthier families than students in the public sector, though this effect is small in upper-intermediate institutes. Another key difference is the student's score on the secondary school leaving exam. On average, students at public universities have higher scores than students at private universities, and all university students have much higher scores than students at both higher and upper-intermediate institutes. We then look at fields of study within the tracks to examine the question: Are differences in scores due to a different mix of fields of study, or do different tracks and sectors of higher education accept students with different scores for study in the same field? Our results suggest the latter. A student's score on the secondary school leaving exam and the student's family's ability to pay for private higher education are found to determine the track and sector where the

student will study. Students from families that can afford private education have more opportunity to study the field of their choice because they can afford to study at a private institution that will allow them to study their chosen field, despite having a low score on the secondary leaving exam. Students with low scores who cannot afford private higher education, but want to continue their studies, may be forced to enter into a faculty not of their choosing.

**Sandra Patricia Lastra Ramirez**  
Professor, University of Tolima, Colombia

## **Constructing Professional Identity through Metaphors: What Student- Teachers' Have to Say about their Profession**

Language is saturated by metaphors, we express our desires, beliefs and opinions mainly using metaphors, they are part of our daily language. They also shape the material and social worlds in which we live and picture with words our sense of professional practice. By examining the personal metaphors of a group of fifteen students who are part of an Applied linguistics course at the B.A. in English program at Universidad del Tolima, we can explore how student-teachers go about professional identity construction. By reflecting upon the statement "The teacher I want to be" these students explore their desires and extrapolate the theoretical constructs they have internalized throughout the Applied linguistics course. This presentation aims at presenting the results of a qualitative study in which metaphors is used as an instrument to explore students construction of professional identity.

**Carsten Lecon**  
Professor, Aalen University, Germany

## **E-Tutorials as an Addition to Higher Education Learning Scenarios**

At universities we observe a great range of different previous knowledge and increasingly weaker mathematical competences of the students – partly due to the less limited qualification rules. In order to support the students there already exist some helpful possibilities – with certain limitations:

- Online courses: Self-made or, for example, via YouTube. It is very time-consuming to create own online courses; and, in general, there is no supervision by a tutor.
- Tutorials: Because of the full timetable, especially in the first semesters, the students sometimes find it difficult make an appointment for common meetings during daytime.
- Individual consultation-hours. Very effective for students, but very personnel-intensive.

To address the challenges we use **e-tutorials** as an addition to the traditional classroom teaching: Some additional tutorials for elementary mathematics take place in a virtual 3D room; the advantages are:

- Tutorials can take place at any time; in practice, the e-tutorials are offered in the evening; the students can participate at home – they do not have to reside at the university personally.
- The students can communicate as a real seminar room.
- The known (or even more) technical environment can be used: interactive whiteboard, application sharing, remote desktop, etc.
- We hope that introverted students are more willing to participate actively as in the real environment, because they are represented as an abstract copy of themselves - the so called avatars, which can serve as a “protective shield”.
- The artificial environment can be adapted to the individual needs of the learning subject.
- The virtual session can be recorded and replayed.

Furthermore, virtual 3D rooms are a good addition for on-the-job training. In this paper we describe the possibilities using virtual 3D rooms as “virtual blended learning” phases, the challenges, the advantages and the feedback of the students as well as the limitations.

**Judy Leichtentritt**  
Lecturer, Oranim College, Israel

## **Inclusion: The Perspective of Israeli Pupils with Learning Difficulties**

Inclusion of pupils with special educational needs into regular education is a much-discussed topic worldwide. Yet, while many volumes have been written on inclusive and education, the voices of young people with special educational needs is generally absent from those debates. Academic discourses can be informed by understanding the views of those with direct experience of the phenomenon. The following qualitative study provides an in-depth account of how inclusion is perceived by young Israeli pupils undergoing the procedure. The perspective of these young people is vital as Oliver (2000) explains:

... there is an enormous wealth of experience and pain out there which.... has not yet been acknowledged... current discourses around integration or inclusion are still professionally led (p. 115).

Israeli pupils' experience of inclusion has not been studied before. Consequently, a qualitative, interview-based study design was employed, in which 15 participants were encouraged to talk about their experiences in their own words. The analysis follows the approach of Gubrium and Holstein (1998), which enables the exploration of themes appearing in the text while preserving the basic narrative structure of beginning, middle and end.

The experience of inclusion can best be conceptualized within the dialectic perspective (Baxter & Montgomery, 1996), which claims that individuals can simultaneously hold contradictory perspectives (Baxter, 2004), as was strongly evident in the participants' narratives. Informants valued their time with the special education teachers, recognized the benefits and assistance they received and claimed they would avoid coming to school in case they were no longer eligible for assistance; but at the same time, they disliked leaving their classroom, complaining about the manner classmates as well as teachers perceived them as a result of the assistance they receive, highlight the risks, difficulties and their vulnerability because of their inclusion experience. Several contradictions repeatedly emerge across the narratives. These are at the heart of the examined experience and were inductively conceptualized into three themes. The first theme is labeled "comforting/discomforting" and addresses the participants' relationship with the school personnel. The second theme: "together/separated" refers to the informants' perception of their social status and relationships with their peers. The last theme labeled

"acknowledge/denial" referred to their evaluation of their learning difficulties. Participants encounter difficulties in integrating the conflicting views and experiences into a coherent whole. Thus, practical implications include educators' recognition of the complexity of inclusion and the need to make active efforts to reduce these children's sense of polarization while advocating for a more balanced experience.

**Chi Hung Leung**

Assistant Professor, The Hong Kong Institute of Education, Hong Kong

**Understanding Adolescents' Attitudes toward Gambling  
with the New Theory of Reasoned Action (TRA) Measure  
in Macau**

The Theory of Reasoned Action (TRA) was used as a conceptual framework for testing the construct validity of a measure of adolescents' attitudes about gambling. The measure was then used to test whether adolescents' perceived family and peer norms were associated with their own attitudes and behaviors related to gambling. Adolescents (N = 743) aged from 14 to 21 years (M = 15.62, SD = 1.87) from nine secondary schools in Macau were invited to participate in the study. Factor analysis indicated that attitudes toward gambling were represented by the factors of personal experiences, affection, and persuasion. Both parents' and peers' subjective norms have direct effects on adolescents' attitudes toward gambling. Suggestions are made for service providers, researchers and educators for understanding gambling attitudes among teenagers.

**Xin Liang**

Professor, The University of Akron, USA

&

**Linda Collins**

Project Manager, The University of Akron, USA

## **The Impact of Formative Instructional Practice Professional Development on Instructional Change**

Funded by federal monies, the Department of Education of a Midwestern state in the U.S. launched a statewide implementation of a professional development program to apply formative instructional practices (FIP) in order to increase student achievement. Central to FIP concepts are 1) clear learning targets, 2) ongoing collection of evidence of student learning, 3) providing effective feedback and 4) fostering the ability of students to take ownership of their learning. One important indicator to measure the effectiveness of the FIP project would be observable changes of FIP adoption in classroom instruction. The purpose of this study was to record observable changes in teachers' instruction practices measured by a classroom rubric developed by an evaluation team at a University. The rubric consisted of five constructs including the 4 basic principles of formative instructional practices and 1 general student engagement feature. The rubric contains 16 items on a 0-6 scale. The total possible score is 96, with a mean of 3.20, and Standard deviation of 1.92. Three waves of classroom observations were conducted in 45 classrooms at the beginning, in the middle and towards the end of the project. Repeated measure analysis was applied to calculate the changes across the three waves. The results indicated that there was a significant positive change. Observation scores in Wave 2 were higher than Wave 1. In addition, there was continuous growth from Wave 2 to Wave 3. However, the lowest growing area was in promoting student ownership and self-initiated learning. Future professional development initiatives need to focus more attention application of FIP concepts from teacher level to student level. The rubric could also be used as a self-study measure for personal and professional growth.

**Yu-Hsuan Lin**

Assistant Professor, Nanhua University, Taiwan

### **The Price of “Pursuing for Excellence”: Academic Workers in the Restructured Higher Education in Taiwan**

Under the influence of neoliberalism, values such as entrepreneurship, managerialism, quality, and performance have played an important role in shaping the higher education reform in Taiwan. In response, efficiency, productivity, and the academic performance are emphasized by government and university management. The role position, work content, and evaluation standards of university teachers have undergone considerable changes. Various indicators and forms are used to quantitatively evaluate academic performance, drastically altering both the physical work and emotional landscape of academia. This study aims to explore how the higher education reform affects the working conditions of academics and their everyday lives. Drawing upon institutional ethnography and in-depth interviews with 20 newly employed university teachers, the findings are orchestrated in following four ways: first, ‘academic workers’ fully embrace the university managerial values, making themselves available both physically and mentally for work at any time and any place. Second, compressed intimacy is another way out for their busy work schedules in which personal lives are compromised by workplace demands. Third, care work (i.e. care for the self and care for the others) is devalued for its incoherence with work expectations. Fourth, competitive individualism is highlighted in which performance driven is applauded and endorsed by masculine work ethic. Accordingly, ‘academic workers’ have learned to become ‘ideal’ workers in neo-liberal time: the self’s values are marginalized whereas the corporate interests are embodied and centered. Rather than challenging the unfair workplace circumstances, university workers tend to internalize the structural inequalities as individual deficiencies. Through academic workers ‘voluntarily’ adjusting their lives for neo-liberalism and its masculine work ethics, the gendered hierarchy in the higher education reform is rendered invisible and further perpetuated.

**Maria Dolores Lopez Carrillo**  
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&  
**Omar de la Cruz Vicente**  
Lecturer, Universidad de Alcala, Spain

## **Dichotomous Keys and Collections in Elementary Education**

This work aims to provide the necessary resources and motivation to develop the scientific competence in the second cycle of pre-primary education in Spain. The aim of this paper is to contribute with proposals such as the development of collections and dichotomous keys to work with children from three to six years old taking into account the mathematical competence, the learning to learn competence and the competence of interaction with the natural environment, so that scientific literacy can begin from the early stages of education. Undergraduate students of Elementary Education Degree are used to working with these procedures, which involves, not only knowing the basic characteristics of the natural elements collected (organisms or inert matter), but it also requires the development of skills and abilities characteristic of scientific work.

**Carmen Lopez-Escribano**

Senior Lecturer, Complutense University of Madrid, Spain

**Montserrat Blanco-Garcia**

Assistant Lecturer, University of Castilla-La Mancha, Spain

&

**Canabal Garcia Cristina**

Senior Lecturer, University of Alcala, Spain

## **Supporting All Learners through Universal Design for Learning: The Unity of Emotion, Thinking and Learning**

Universal Design for Learning (UDL) is an instructional model for making curricula, materials and environments accessible and usable by all students. Three principles guide UDL and provide the framework for educators. Principle I: Provide multiple means of representation (because learners differ in the ways they perceive the information). Principle II: Provide multiple means of action and perception (because learners differ in the ways they can navigate a learning environment and express themselves). And, Principle III: Provide multiple means of engagement (because, affect represents a crucial aspect to learning). The present communication focuses on Principle III.

Firstly, we will consider the wide variability in student's emotional responses in learning situations. Part of the rationale for the UDL framework is to understand the systematic individual variation in any type of ability, so that teachers can design instruction that addresses it in a meaningful way. Secondly, we will reflect on the idea that emotion, thinking, and learning are inseparable constructs. "Emotion is the rudder for thought and the key to memory". Learning is emotional work for students and for teachers. Thirdly, we will provide insight into how our emotional system works and how it responds to threatening situations guiding our responses. We are constantly evaluating risks, considering the "demands" and "resources" of a particular situation. If demands out-weight resources we experience stress. If resources out-weight demands we lose interest. Neither of these two situations is ideal for learning. Finally, we will analyze and reflect on different ways to shift the balance between "demands" and "resources" in learning situations. From the UDL perspective to engage the students, we should facilitate different ways of learning so they can balance demands and resources. If we build enough resources students can scaffold themselves in learning. We will list possible sources of "demands" and "resources" in different educational scenarios.

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## **The Influence of Shadow Education on China's Basic Education Policy**

With the publication and implementation of some basic education policy, extracurricular educational organization of primary and secondary schools has become a "Shadow Education" of basic education, and showing a a scale and collectivization development trend. This excessive marketization trend is a systematic problem of the implementation of China's basic education. On one hand, shadow education promotes the school exam-oriented education escalating, which seriously affect the full implementation of quality education in primary and secondary schools. On the other hand, the excessive marketization of after-school tutoring has led to excessive investment and distortion value of family education, which seciously affect education fairness of the basic education. The formation and development of "shadow education" has an important influence on China's basic education. Under the marketization background of shadow education, to achieve management goals, the government's education policy should change from administrative management to institutional governance through regulating the extracurricular tutoring behavior of schools, promulgating laws and regulations about business education training institutions and cultivating public welfare education tutoring organization and education volunteers group.

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## **The Impact of Appropriate Learning and Teaching Support Material on the Perceptual-Motor Development Skills of Kindergarten Learners**

This paper highlights the investigation of socio-economical circumstances, a stimulating learning environment and the role of learning and support material on the development of gross- and fine motor skills of Kindergarten learners (approximately ages between 5.2 ( $\pm 0.5$ ) years). A combined research method with a two-group pre-test-post-test design enquiry was followed. Kindergarten learners from two schools within the same socio-economical environment were selected by using a convenience sample. Over a period of nine months a perceptual-motor intervention with teacher support and development of an effective learning environment was implemented and performed at the experimental school ( $n=25$ ), while at the control school ( $n=30$ ) no intervention was received. Data were analysed to determine the difference between and within the schools through using an independent and dependent t-test, as well as a multi method approach with photo-analysis and descriptive information. Customised averages determined through an ANCOVA for fine-and gross motor co-ordination were significantly better after intervention had taken place within the experimental school. The qualitative and quantitative data were compared to determine the impact of the use of appropriate LTSM on the development of perceptual motor skills with the focus on fine-and gross motor coordination of the two kindergarten schools. During the pre-test for fine motor skills both schools' learners could not be considered as school ready ( $<60\%$ ) while gross motor coordination (control school= $81\%$ , experimental school= $85\%$ ) already tested ready ( $>80\%-100\%$ ). After the intervention which lasted nine months, the adjusted average during the post-test for both fine-and gross motor coordination were significantly better at the experimental schools than those of the control school. The increase from the pre-test to the post-test for small motor coordination reported ( $25\%$ ) at the control school compared to ( $43\%$ ) at the experimental school. After intervention, 17 from the 20 ( $85\%$ ) learners were school ready in the experimental school, while from the control school only 8 from the 28 ( $29\%$ ) were ready for school. The school readiness of learners with ineffective learning and teaching support material (LTSM) from a low socio-economical environment can improve with early exposure to a suitable perceptual-motor intervention program.

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### **Activities with Pre-Services Teachers in Chemistry Promoting Argumentative Classes**

A major aim of Science Education is to allow students to get engaged in critical thinking about scientific discoveries and socio-scientific issues based on the social and scientific evidence. This ability contributes that the students build explanations, models and theories and concepts and have conceptual changes. These aspects can be supported when the teacher provides, in his lessons, an environment in which students can engage in argumentative actions. In this context, the teacher plays a key role in promoting argumentation. Considering the observations highlighted before, we designed this study to analyze how the argumentation was facilitated by two Pre-services teachers in chemistry, named John and Fatima during their regency in classes in high school, after participating in a dynamic training linked to discipline of Practice Teaching of Chemistry (PEQ). This aimed to provide subsidies so that future teachers promote argumentative activities in the process of teaching practice. The objective of this paper is to analyze the actions of the Pre-services teachers to promote scientific reasoning in their regencies using the analytical framework proposed by Simon, Erduran and Osborne (2006). The said reference presents eight axes of analyzes for the statements of the teachers to work in an argumentative perspective, being: *Talking and Listening, Knowing the Meaning of Argument, Positioning, Justifying with Evidence, Arguments Constructing, Evaluating Arguments, Counter-arguing/Debating and Reflecting on Argument Process*. Each axis is related declarations/statements/requests made by the teacher for initiation of argumentative processes. John and Fatima jointly planned regency activities about Hess's Law, but each one gave his regency to a distinct class of students of the third year of high school at a public school in the state of São Paulo, Brazil. Fatima gave 04 lessons of 50 minutes and John 03 lessons also of 50 minutes. To evaluate the activities of the Pre-services the classes were audio and video taped and transcribed to capture their oral contributions and interactions with the high school students. As strategies for promoting the arguments pre- services planned using dialogued lectures and didactic games to be performed

in groups, potentially promoting strategies of argumentation. Of the Categories/statements related to the axes of analysis, we obtained the following frequency during class: *Encourages listening* - 22 occurrences for the Pre-service teacher Fatima and 07 for John; *Encourage ideas* - 96 Fatima and 58 John; *Provides evidence-* 64 Fatima and 46 John; *Prompts justification* - 16 Fatima and 03 John and *Uses writing frame or written work/prepares presentations/roles* gives 15 Fatima and 05 John. Observe that actions aimed at promoting the argument occurred more frequently in classes of Fatima, which from the time of the planning the lessons seemed to be more interested and involved in the idea of promoting a regency in argumentative perspective. It is inferred that although the activities were possibly significant to promote argumentation in the classroom, the teacher's role is crucial, since a greater involvement of Fatima enabled the identification of more argumentative elements in class. We consider thus the need for teachers to be attentive to their placements and their involvement in lessons because of the success of the same is attributed to them.

**Eduard Lukac**

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## **Education and Enlightenment of Jewish Population in Slovakia until 1945 – On Example of Microhistory of Town of Presov**

The town of Prešov is proud of its cultural and educational traditions, to which also the inhabitants of Jewish religious community significantly contributed. Since their settlement in town until the period of tragic war events they were gradually building their educational establishments, edifying and cultural organizations and their personalities took part in formation of social life. Jews with their long-lasting and also very moved history have been highly appreciating the power of education and educated citizens for centuries, because they were obliged to by their religion as well as by long-lasting tradition. Jewish citizens gathered in the surrounding of Prešov since the beginning of the 18<sup>th</sup> century mainly in the near municipality named Šarišské Lúky. Firstly, Jews were coming to Prešov only for the sake of trade in the time when the markets took place. Traders, craftsmen as well as individual citizens did not want them to access the town permanently because they were afraid of competition from Jewish citizens. The first Jewish citizen of Prešov was Marek Holländer. Initial unwillingness of citizens and town-council turned after demonstration of Holländer's trading skills and financial benefit into trust and other Jewish families started to move into Prešov. Their cultural life also reflected in the gradual establishment and widening of educational and edifying institutions. After initial illegal educational activity, a private Jewish folk school was grounded, which later transformed into state Jewish folk school; after the division there were also neologic folk school, rabbinical school Yeshiva, Jewish private continuative apprentice school for locksmiths, Beth Midrash (House of Learning), Talmud Tora, Jewish women community of Prešov, community of Jewish academicians, community of Jewish scouts, Jewish museum, gymnastic and sport community Makabi, Jewish library etc. After Munich Conference and declaration of Slovak Republic, anti-Semitic mood and attitudes started to be spread. It is sad to say that the town of Prešov, at one time the bearer of significant educational and cultural traditions, became the leader of anti-Semitic behaviour and orders at that time – wearing ribbons on clothes, plundering of property, moving out of main streets, first transports etc. Restriction orders also applied to the area of education – excluding Jewish pupils from all state schools, prohibition of Jewish communities and organizations, restriction of

access to secondary schools and their peak were the transports into concentration camps, what led to decimation of Jewish population and culture.

**Marek Lukac**

Assistant Professor, University of Presov, Slovakia

## **Integration and Segregation in the Education of Roma Minority**

The paper is dealing with the process of integration of Roma ethnic minority in the educational system in Slovakia. Roma minority represent large scale of Slovak population. Significant part of Roma population is facing low social and economic status strongly associated to their low education level. We focus on education policy towards Roma, whose development has been strongly framed by promoting integration policies. We also mention persisting segregation in education of Roma, supported by our research findings and consider the possibilities and difficulties of application of the integration and inclusive action in education of Roma in Slovakia.

**Maria de Lourdes Machado-Taylor**

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## **Comparison of the Academics Role in Accreditation Methods of Higher Education Institutions in Portugal (Europe) and the US**

In the Age of Knowledge higher education (HE) has never had a more important role throughout the world. Nevertheless, higher education should represent one of the most exciting growth industries of the 21<sup>st</sup> Century. However, HE no longer resides in a comfortable, secure place of privilege one step removed from the competitive realities of modern society. Thus, this competitive environment in time is going to expose the shortcomings of the current higher education system. Moreover, powerful forces are driving higher education toward change (Machado-Taylor, 2011).

Higher education institutions (HEIs) have to manage their resources and human resources in particular in order to be proactively positioned to seize opportunities and confront threats in an increasingly competitive environment. Here, we will pay attention to a particular group – the academic staff – as a key resource within higher education institutions, academics involvement in higher education accreditation and his major role in achieving the objectives of the institution.

The academic staff can, with appropriate support, build a national and international reputation for themselves and the institution in the professional areas, in research and in publishing. Thus, we can argue that the performance of the academic staff can have an impact on the quality of higher education institutions (Machado-Taylor et al., 2010). Accreditation has for many years been an important element in institutions of higher education in the United States, and within the last twenty years has taken on growing significance around the world as nations have sought to improve their tertiary education institutions and broaden the bodies of students they seek to enroll (Brittingham, 2009; Ewell, 2008). The United States, unlike other nations, has chosen to allow accreditation to be performed by six regional accrediting agencies, though during the Bush administration there were efforts by the Secretary of Education, Margaret Spellings to centralize accrediting, or to at least create a more uniform method of doing so across the country. These efforts raised a fire storm of controversy and criticism

and the efforts had little long term effect on centralization but did result in the regional accreditation agencies seeking to “ramp up” their standards and accreditation focuses (Dickeson, 2010, Eaton, 2009).

In Europe, the primary emphasis on increasing accreditation rigor has come from the various central governments and from the universities themselves (ENQA, 2005; Schwarz & Westerheijden, 2004). There has also been pressure from the European Union and a desire to make Europe in general and a variety of countries in particular desirable locations to which international students come for study. Efforts to broaden the number and types of students who study in tertiary education, desire to strengthen tertiary education in those countries which have become net exporters of students, the creation of a common higher education framework as envisioned at Bologna, the inclusion of degree programs, particularly graduate programs, being offered in English, and to be competitive with the American system as well (Serrano-Velarde; Hopbach 2007). Nevertheless, the implementation of the Europe 2020 strategy rests with member states and education institutions themselves. The main responsibility for delivering and supporting reforms in higher education rests there in order to step up efforts to increase higher education attainment levels. This is true, in order to achieve education headcount target of 40% of 30-34 year olds in the EU having completed tertiary or equivalent education. This is necessary since there is an estimate that by 2020, 35% of all jobs in the EU will require high-level qualifications. However, these efforts have moved less quickly of late in the countries of Southern Europe such as Portugal, due to political considerations and the poor economic conditions resulting from the world recession. While this is true, Portugal has a dynamic accreditation system – A3ES - and several good tertiary institutions which attract students from Portuguese speaking nations in Africa and from the dynamic and growing economy of Brazil and other European countries.

The European Standards and Guidelines and Regulation of the Agency for Assessment and Accreditation (A3ES) and the six Accreditation Agencies through the US provide for the participation of faculty in the evaluation process (A3ES, 2014; CHEA, 2006; Eaton, 2006). Faculty is a constituent group of Higher Education Institutions (HEIs) which depends on the quality of the very same (Worthington & Hodgson, 2005).

However, global trends such as accountability, massification, deteriorating financial support and managerial controls are changing the academic workplace (Capelleras, 2005). Nevertheless, several authors contend the necessity to manage the tensions within the academic profession (Altbach, 2003).

In this presentation we aim to study the level, the role of faculty participation in evaluation processes within Europe and outside the European context more specifically in the US. There are considerable differences between both systems.

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**Laura Goran**

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&

**Simona Trifu**

Lecturer, University of Medicine and Pharmacy Carol Davilla, Romania

## **Building a Psycho-Education Guide for Parents of Children with Autism Spectrum Disorders**

Autism spectrum disorders are among the most serious neurodevelopmental disorders. According to DSM V (2013), these are characterized by persistent deficits in communication and social interaction, along with repetitive patterns / stereotyped behaviours, interests and activities. Recovery is possible through intensive intervention such as behaviour analysis and individualized programs designed accordingly. Although there is no certainty regarding the child's progress in terms of the pace of acquisitions, nor the level of development that it will reach, literature underlines, among other factors, the facilitator role of family that understands this condition and joins, in the most serious way, therapeutic team efforts. Parents are not specialists, nor shall replace them; however, in their specific parenting, should be trained to help the child to progress, with responsibilities both in terms of maintenance and generalization of knowledge already acquired. Starting from the real situation in Romania, this paper intends to outline a psycho-education guide for parents, with specific reference to autism spectrum disorders, techniques of managing the symptoms, the ways parents must support therapy and therapists, how they should report to their children to help them to progress; this guide should also be the basis for parental counselling provided by professionals (psychologist / therapist) dealing with case management

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&  
**Marine Mkrtchyan**  
Lecturer, Yerevan State University, Armenia

### **Challenges in Teaching Latin and French Loan Words in the Language of Diplomatic Protocol**

This paper gives a brief outline of the work we have undertaken at the Faculty of International Relations, Yerevan State University, to ensure the acquisition of Latin and French loan words in the language of diplomacy, the challenges we have faced in the teaching process and the ways to overcome them and move forward. The paper touches upon some peculiarities of teaching methods intended at the effective acquisition of the abovementioned loan words. Being an essential part of language learning, vocabulary acquisition and development is a vital part in teaching the language of diplomacy in general, and that of diplomatic protocol in particular. Effective teaching of notions and terms in the language of diplomatic protocol needs special attention since it develops both students' abilities and knowledge for successful communication in their occupation. Most professions employ phrases and terminology specific to their career, and diplomacy is no different. Diplomatic language of the present day is rich in many words and expressions of French, Latin, Greek origin, which have made the greatest contribution to the English diplomatic word stock, both directly and indirectly. Although English is clearly a Germanic language and doesn't belong to the Romance family, it will forever be bound to Latin and French. Borrowings from Greek are heavy in sciences and technology, while French and Latin loan words prevail in the English diplomatic language. The paper will highlight semantic influence of the borrowings in the target sublanguage and overall picture of the borrowings, which should be taken into consideration in the process of teaching the language of diplomatic protocol and ensuring the acquisition of loan words.

**Christian Mayer**

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&

**Oliver Gansser**

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## **Challenging Analogical Encoding under Real Educational Conditions**

Managers often fall back to prior experiences for current decisions. In fact, they often try to solve problems with the help of analogies. For a better educational process in advance, to acquire principles and successful retrieve and applicate those in future, analogical encoding is often suggested. With this technique, two examples are compared and, thereby, superficial characteristics will be ignored and common relevant underlying principles will get abstracted. The received schema can be retrieved in later situations. In literature this technique is often recommended to be also practicable in the context of teaching with case studies. However, the success of this technique is based on experimental cases that differ from real business cases regarding content and length. These cases are very short and foremost only include information related to the structural commonalities of both cases.

Significant research exists that people are sensitive regarding the amount of details/distracting information. This could affect the recognition of principles. Moreover, by comparing real-business cases the cognitive load of the working memory is higher. The higher the working memory is demanded, the less people are able to recognize structural relations. With the conducted experiment, the performance of analogical encoding on schema abstraction with cases closer to real business cases was evaluated. 92 master and bachelor students took part in a paper and pencil study at the FOM University of Applied Sciences in Munich. 43 of them had compared two cases analogous to prior studies. 49 participants compared cases that were closer to real business cases.

The results are somewhat surprising. Despite all distracting and detailed information group 2 had to deal with, the schema quality did not significantly differ between both groups (Schema evaluation on a scale from 0 to 2: Group 1  $M=0,51$ , Group 2  $M=0,59$ ,  $t\text{-test}(88)=-0,62$   $p=0,54$ ; schema evaluation on a scale from 0 to 4: Group 1  $M=0,88$ , Group 2  $M=1,04$ ,  $t\text{-test}(90)=-0,82$   $p=0,41$ ) Analogical encoding is principally applicable to cases as used in business education.

**Isao Miyaji**

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## **Classification of Blended Classes Using Change of Attitude Related to Ability**

For last 10 years or so, we have been practicing class session through incorporation of “blended learning”. In order to find out the kind of difference that exist between the effect of utilized media and its implementation method concerning the subject of blended type class implemented at information related course in University A, we will compare class method, utilized media, the result of awareness survey conducted before/afterwards, and activities that are useful for awareness improvement that was surveyed afterwards. We will identify the kind of difference that exists between the learning effect of each type when categorizing subjects into lecture type class, exercise type class, and experiment type class.

In order to find out the kind of difference that exist between the effect of utilized media and its implementation method concerning the subject of blended class implemented at information related course in University A, we will compare class method, utilized media, the result of awareness survey conducted before/afterwards, and activities that are useful for awareness improvement that was surveyed afterwards. We will identify the kind of difference that exists between the learning effect of each type when categorizing subjects into lecture type class, exercise type class, and experiment type class.

Surveyed question items are divided into general awareness and awareness related to subject. At the beginning and end of the class for each subject, we have asked students to respond to the rating item. Through significant test, we will compare just what kind of difference exists between the changes in general awareness that students have responded. We will also compare to see if there is difference between the number of activities that are useful in improving awareness through  $\chi^2$  test. By using 4 types of data that are related to awareness, we will obtain the principal component score and will rank subjects in order of the score. We will separate them into 5 levels based on its frequent use of utilized media. In addition, by basing on its frequent use, we will make comparison by ranking subjects in order of the principal component score. We will obtain the principal component score by using 8 types of activity time for of each subject and use them as the source of such score. By obtaining the correlation coefficient between the principal component score of these three types, we will compare the characteristics of the lecture type group.

The frequency of media utilized during class or outside of class is categorized into 5 levels. The principal component analysis was conducted by using these 5 levels. The finding suggest that as the unique media being utilized in lecture, as media such as mini test, lecture sorting note, text book, exercise problem form, etc. is used more, the principal component score also tends to get larger. The finding suggest that as the unique media being utilized in experiment as media such as PC, mutual assessment, experiment form, etc. is used more, the principal component score tends to get smaller.

To find out about modification in awareness, survey for awareness related to ability was conducted through the holding of information related class session. Concerning the ability and awareness that showed signs of improvement due to class session, twice surveys were investigated before and after taking the class.

For each subject, we will use information ( $4 \times 31 = 124$ ) regarding each average rating score of 30 items for before/after of ability and awareness survey and overall rating score, average elongation of awareness, and average activity number per person useful for awareness improvement. In order to identify what kind of characteristics are found in individual subject group, principal component analysis was conducted. We believe that 124 information of the rating score and average activity number can mostly be explained by these two principal components, "rating score related to average elongation" and "previous rating score".

By performing cluster analysis as variable on score of principal components 1 and 2 obtained concerning 4 types of data, 10 subjects have been categorized into three groups G1, G2 and G3. Group G1 consisting of five subjects is the lowest post-average rating score, average elongation, and activity number among three groups. Group G2 consisting of two subjects is the best prior average rating score and activity number among 3 groups, higher post-rating score, and smaller average elongation. Group G3 consisting of three subjects is the best post-average rating score and average elongation and the second most average activity number. It was found that average rating score of G3 "experiment type class" are larger than G2 "exercise type class" and G1 "lecture type class". It was found that activity number of groups G3 and G2 are larger than G1 "lecture type class". From such findings, it was suggested that awareness is increased in the order of groups G3, G2, and G1 and lead to the improvement of motivation.

For lecture type class G1, the number of rating items with significant difference or tendency toward significance were approximately 50.7%. For exercise type class G2, the number of rating items with them were approximately 63.3%. For experiment type class G3, the number of rating items with them were approximately 98.9%.

Through conducting of discriminant analysis for three groups, the important items for lecture type group G1 are the 19 items of prior rating score. We can therefore identify that for group G1, more than half items of prior rating score are important and the prior rating scores of items are considered to be large. We can therefore see that for group G2, almost all of prior rating value, post rating value, activity number are important and their values are considered to be large. The important items for experimental type group G3 are all 31 items of post rating score, elongation and activity number. Based on this, the rating score of awareness for group G3 showed more subsequent increase than group G1 and G2. It is considered that group G3 is also the group with large number of listed activity.

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## **Education for Sustainable Development – Qualitative Case Study in Early Childhood Education**

Education for Sustainable Development (ESD) is an ideological approach to education that encourages the development of attitudes, values, skills, and beliefs which empower learners to contribute to a sustainable world environmentally, economically, socially and culturally, for current and future generations (Brundtland, 1989; Mckeown, 2013). In response to the call for increased awareness and practice of ESD, an international conference was convened in Sweden in May of 2004 to develop a specific framework for approaching ESD called *The Gothenburg Recommendations on Education for Sustainable Development* (Center for Environment and Sustainability, 2008). These recommendations call to increase access to education for all people, place an emphasis on understanding and supporting gender equity, promote learning for change, develop networks and partnerships in areas of sustainable development, integrate ESD into established curriculum and practice at all levels of education, and continue to conduct scholarly research about ESD.

There is increasing scholarly support for the integration of ESD into early childhood education. Early childhood is a critical time for the introduction of ESD since young children are highly susceptible to values transmission and are ready to internalize the messages of ESD. The formation of values systems regarding our interaction with the earth and its living creatures, including humans, are developing in early childhood regardless of whether we are intentionally implementing ESD or not (Bently & Reppucci, 2013; Boutte, 2008). These fundamental values are being formed in early childhood and serve as the foundation in which the accepted social values of tomorrow are built.

The following U.S. case study was designed as part of an international research project looking at ESD practices in early education in 11 countries. Five preschool classrooms in a rural Midwestern area of the U.S. were observed using the Environmental Rating Scale for Sustainable Development in Early Childhood (ERS-SDEC). The ERS-SDEC is a scale designed to evaluate early childhood classrooms for sustainable development. The ERS-SDEC is modeled after the Early Childhood Environmental Rating Scale referred to as ECERS (Harms, Clifford, and Cryer, 1998). The ERS-SDEC consists of three pages of evaluative criteria representing the three pillars of

sustainable development: Social and Cultural Sustainability, Economic Sustainability, and Environmental Sustainability. The purpose of the study, was three-fold: (1) to understand the strengths, challenges, and efficacy of the ERS-SDEC as a tool for evaluating the practice of Education for Sustainable Development (ESD) in early childhood classrooms, (2) to establish a sense of which elements of ESD are being integrated into the curriculum and learning environment in the U.S. context, and (3) to add to the international conversation about ESD. Findings related to U.S classroom practices, teacher understanding about ESD pedagogy and usefulness of the instrument will be discussed.

**Namdar Mogharreban**

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## **Selection and Ranking of Learning Variables for Creation of Learning Objects**

The concept of a learning object capable of self-assembling context-sensitive course content from online sources (the “learning pod”) was first proposed by Mogharreban and Guggenheim (2009). This paper continues that investigation by describing an approach to implementing functionalities for such an environment. The process begins when the learner’s interests and requirements are delineated into parameters which in conjunction with the subject matter are utilized to select and retrieve learning variables by means of crawling the web. Once selected, they are ranked based on the approximate closeness to the learner’s specifications, and stored in such a way as to support the automatic construction of a learning object. The proposed model concentrates on the selection, retrieval, and management processes of learning variables. To acquire the content, the system first selects a web service that has access to the associated subject matter. A ranking procedure is executed to rank the learning variables that are best suited to the learners’ requirements. Once retrieved the learning variables are organized according to their type - text, audio, video, or file objects such as Microsoft Access tables or a spreadsheet charts - and are placed in a repository associated with the learning pod. Depending on the learner’s choice, the output is an eContent file in the form of a presentation, a PDF document, or an HTML file.

**Juan Eliseo Montoya Marin**  
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### **Literary Therapeutics**

From a psychology perspective literature is an alternative therapy to heal psychological difficulties in children and adolescents. This poses a challenge in relation to the teaching of literature in schools and especially the literary teacher training, so that it is in fact a medical alternative times and crisis situations, such as crossing the various Colombian populations and other peoples of Latin America. It is not that literature makes teachers in psychologists or therapists, but to show that they can use the therapeutic power of literature to make students humans healthier and positively affect their families, which is also a purpose training of primary and secondary education. Not provide literature to students is denied the opportunity to live better. This paper presents some challenges for teacher education and some teaching from classroom experiences possibilities.

**Brett Moore**

School Principal, Sunbury Downs Secondary College, Australia

### **Situated Learning in a School-University Partnership Project: Integrating Pre-Service Teacher Education in School-Based Educational Change**

**Problem Statement:** The study investigates how a school / university partnership involving pre-service teachers (PSTs), teacher mentors, teacher educators and school students has impacted on instructional practice, participant engagement and learning.

**Key Questions of the study:** To what extent does this site-based model of PST education:

- ✓ enable the integration of theoretical knowledge and professional practice across the three domains of a pre-service teacher (PST) education program?
- ✓ align PST learning with Department of Education and Early Childhood Development (DEECD) goals and priorities?
- ✓ enhance the quality of a PST's experience?
- ✓ enhance a PST's self-efficacy through a sense of belonging?
- ✓ impact on the quality of teaching instruction?

**Objectives/Purpose of Study/Background/Main Argument:** This research seeks to establish a more productive and beneficial form of PST education that has positive benefits for the education system. Through an examination of a specific school-university partnership, recommendations are drawn in relation to how a site-based model of pre-service teacher education can enhance the quality of teacher preparation.

**Sources of Evidence:** Surveys, interviews and focus groups of participating PSTs, teacher mentors and teacher educators were carried out to produce longitudinal data from 2011- 2013. Surveys of participating school students were conducted to measure the impact of the educational partnership on their learning, attitudes and engagement. The same survey was re-written for other stakeholder perspectives to provide for comparative analysis.

The study has also tracked the career destinations of pre-service teachers as they have entered the work force as newly qualified teachers. The study has examined the perceptions of teacher graduates regarding the extent to which the site-based model of pre-service teacher education impacted their learning confidence and capacity to meet the professional standards of a beginning teacher as evidenced in

the Australian Institute of Teaching and School Leadership (AITSL).

**Findings and Results:** The evidence from the study demonstrates that the school/university partnership has enabled all stakeholders who participate to learn: the school students through the developing contributions of pre-service teachers (PSTs); the PSTs as they work in authentically demanding practice; and the teachers whose professional understanding and practice is developed when they take on the primary mentoring responsibility of PSTs.

**Conclusions and Recommendations:** The outcomes and recommendations of this study are intended to provide educators and government bureaucrats with a process or template, upon which an educational partnership can be pursued, investigated and analysed and a way in which the narratives of stakeholder participants are able to impact on research outcomes and recommendations for improvement. The stakeholders who will benefit from this research and contribution to knowledge are educators, students, tertiary and DEECD policy-makers and the education system in general.

**Sandra Musanti**

Assistant Professor, University of Texas at Brownsville, USA

&

**Monica Eva Pini**

Professor, Universidad Nacional de San Martin, Argentina

## **Exploring High School Students' Cultural Consumption and Digital Practices**

Drawing from a socio-educational approach grounded in the theory of cultural consumption the study pursues to construct and describe students' cultural consumption profile upon the assumption that media and technological devices function as socializing agents during children's leisure and entertainment time. The authors explore the representations and meanings of digital practices of public school students of a predominately working class neighborhood situated in the periphery of Buenos Aires city. Previous research indicated that today teachers' struggle finding ways to connect with teenagers in schools. Teachers, especially those working in low-income communities, have serious difficulties designing teaching strategies that align with teenagers' interests and values that most teachers regard as void. The authors contend that a map of teenagers' cultural consumption representations and practices, could be an important medium for teachers to review and challenge the undervalued images of learners' interests and values. In this paper, the authors discuss findings from a qualitative research conducted in a public school located in the periphery of Buenos Aires. The school demographic included students from working class and low-income families. Findings identify the types of digital practices that characterize children's cultural consumption profile. These practices include: how children recreate forms of social interaction through diverse social media, the use of computers as the enactment of multitasking and context, and the intrinsic connection between children's identity and cultural consumption. These findings indicate the presence of the naturalized discourse related to the "need of being connected." These patterns of behaviors involve changes in students' daily routines, impacting family interactions and integrating new behaviors such as the permanent consumption of different types of online texts and all types of audiovisual products. Findings highlight the dominance of digital practices aimed at social ties, such as chat and participation in social networks. Even though these practices are mostly aimed at recreation and communication functions, there is an increase in the presence of activities related to formal learning. The outcomes allow portraying children's and teenagers' interests and what they value

outside school with the ultimate purpose of making those characteristics visible for teachers. Teachers should be aware of the range of skills and abilities associated with these practices instead of interpreting students' behaviors as the result of deficit or lack of interest.

**Ronald Musoleno**

Associate Professor, The Pennsylvania State University, USA

### **Educational Leadership and Teacher Training, Anytime Anywhere**

The Educational Leadership program at Penn State University has developed an online master's degree program for K-12 teachers seeking to acquire an advanced degree and become certified as school principals in Pennsylvania. What makes this program unique is its delivery. Courses are taught by professors from the College of Education using an online platform for course delivery known as Penn State World Campus. Content takes the form of written text along with embedded and live video feeds. Students can interact between and among each other and within small groups within the course. One-to-one interaction between professor and student is also possible making the delivery more personal and direct.

**Henriette Nakad-Weststrate**

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**Ton Jongbloed**

Professor, Utrecht University, The Netherlands

**Jaap Van den Herik**

Professor, Leiden University, The Netherlands

&

**Abdel-Badeeh M. Salem**

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### **The Influence of Artificial Intelligence on Consumer Protection in Debt Collection Proceedings at e-Court, the First Private Online Court of The Netherlands**

Article 6 of the European Convention on Human Rights and Fundamental Freedoms (ECHR) is considered to be the key article for the protection of the legal position of any EU citizen in court proceedings. Even though the article is largely written for criminal cases, subparagraph 1 also sees to civil proceedings. The fundamental rights contained herein are the following: (1) a fair and public hearing, (2) within reasonable time, (3) by an independent and impartial tribunal, (4) established by law, and (5) a publicly pronounced judgment, except in special situations (as described in the article). Article 17 of the Constitution of the Kingdom of the Netherlands has historically contained the provision that “no one can be held off against his free will from the court assigned by the law”.

This paper presents an analysis of the effects of the introduction of Artificial Intelligence (AI) to the position of the consumer in Debt Collection Proceedings. To that purpose we will first discuss the principles of AI as a subdivision of computer science devoted to creating computer software and hardware that mimics - or provides support to - the human mind. We then analyze and discuss the impact of AI on the rights of article 6 ECHR. The analysis is carried out on the basis of data provided by e-Court, the first private online court of the Netherlands. Our analysis shows that a radical shift in our way of thinking in relation to article 6 ECHR is required. The change is fundamental. It arises from two elements of the outcome of this case study, viz. that (1) in our modern era one element is missing in article 6 ECHR, namely the element concerning the costs of legal proceedings, and (2) the assumptions (such as the one that the public courts offer by definition a superior form of justice compared to private courts) on which the article was based, have proved wrong for this particular type of proceedings in the Netherlands. As a result, until these two missing elements are properly addressed, the legal position of the consumer risks being adversely effected by article 6 ECHR, rather than protected.

**Valbona Nathanaili**

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## **Liberal Education as a Key for World Citizenship**

The aims of educational system, in general, are formatted according to the demands of society. Nowadays, these demands are articulated by a society that as main aim has the development of science and technology. By contrast, human sciences and arts are often neglected even though they stand in the foundations of a liberal education and constitute the main courses/activities able to cultivate capabilities such as humanity, world citizenship and most importantly, nourish the principle of democracy. The liberal education promotion takes a major significance considering the range of issues the world is facing today, a key one being terrorism. Diversity in terms of ethnicity, social, cultural and belief belongings continue to produce violence and conflicts. The second part aims to explicate the relationship between the liberal education and its contribution towards the consolidation of a healthy democracy, as well as it provides an overview of the ideas developed by the most noted authors in this field. Further, the third part addresses the difficulties encountered in practice and in curriculums. These difficulties are related to: the inertia against any change that appeal for a new philosophy, which contravenes the classical one or the one embedded in the old curriculum; the lack of funds and infrastructure, especially in schools located out of the developing map; the lack of specialized teachers/professors; the pressure of parents; an unclear policy of the internationalization of higher education. Finally, it is concluded, *inter alia*, that the liberal education must be at the top agenda of the education policy and public debate.

**Erika Marie Pace**

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&

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## **Reflecting on Simplex Properties and Principles to Face the Complexity of Inclusive Classrooms**

The intricate cultural, social, economic and developmental diversity as well as the policy shift from dual track systems to inclusive education systems characterising contemporary classrooms challenge teachers to explore more effective teaching methods to suit all learning needs. Yet, acquiring more knowledge and mastering skills is not enough for competency acquisition to successfully implement and sustain change in the long-term. As a plethora of literature suggests, attitudes, values and beliefs underpin one's motivation and self-efficacy to bring about change. Teachers need to embark on an exploratory journey of what Bourdieu (1984) coined as 'habitus'; the expression for deeply embodied ways of doing and thinking. Since the early 1900s, reflective practice has been identified and advocated as meaningful and expected instructional practice for professional development and lifelong learning. However, critical approaches to reflection may often create discomforts when what has become 'second-nature' is questioned. As Sibilio (2012) postulated, the simplifying principles and properties identified in the theory of simplicity (Berthoz, 2009, 2012) may offer a constructive and creative starting point to reflect on one's practices and ultimately face this complexity with a new mindset.

**Leoni Maria Padilha Henning**  
Professor, State University of Londrina, Brazil

## **Problematic Relationships of Philosophy and Education in Brazil: Implications on Teacher's Training Courses**

This study aims to present a first problem addressing to how Philosophy itself arrives in Brazilian lands as part of the Portuguese colonizer program and how its development was facilitated by the cultural conditions that was installed in the rising nation. Secondly, we pretend better understand how Education, by its turn, was treated in our country, since its origin, as an important factor to achieve the development of its people and society at all. The observed problematic elements present in the two areas are crossed from one to another, presenting limits to the development of each other, not favoring a wide range of autonomy of thought to all persons. In this sense, Philosophy of Education was involved by this problematic, essentially because Philosophy was not interested since the beginning to the concrete problems of Brazilian reality, and also, because Education was not concerned to attend indistinctly to all the people spreading knowledge among them indistinctly. We can say that Philosophy of Education became a conflicting field due to these forces, which is manifested mainly on the difficulty it encounters to conciliate theory and practice, a common problem that are dealt with by pedagogues. In regarding to these problems we have selected at least three orders of concern: 1) If Philosophy among Brazilians is, indeed, a relevant activity and an activity really practiced among them, even if we assume that its contents and practice are not widely known by the majority; 2) If the educational spaces have served in the past as a stimulus to philosophical activity in our country and as a significant tool for the production and dissemination of the reflective work carried out by Brazilians; also, if it has been continued so. 3) If research in Philosophy also have been inspired or focused on the problems of the Brazilian reality in general, and /or related to the "education" of the Brazilian people, particularly. Therefore, there are some measures that could be implanted among educators to favor the development of Philosophy as the important instance for the achievement of a critical thought, as well as there are important possibilities concerned to philosophical activities that are very productive to Education as the indispensable and necessary human strategy for achieving the objectives as a modern and more democratic society. For dealing with this situation, this study suggests firstly the need of Philosophy of Education monitories their own work with the attention it deserves, in the sense of stripping and minimize the difficulties of their teaching as a special content offered in

the context of the teacher's training courses. On the basis of these concerns we can establish the central problem for this work, which is, on one hand, to what extent Philosophy in Brazil has grown in the school benches, either as a content of formative character, either as a fundamental investigative attitude to conquer the autonomy of the Brazilian people, or whether as a human exercise of freedom and respect in accordance to the desire of every one to understand oneself, the others and the environment in which he or she is inserted, all these being set in a close relationship based on clear and understandable principles. On the other hand, we can ask about the extent to which philosophy became interested in the educational and training issues of the Brazilian men and women. In other words: what are the limitations established between these two parties and also the possibilities of approximation and facilitation of a mutual development were placed by each of these fields to the other in our country?

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**Physical Practice and Environmental Education:  
Production of Didactic Material for the Teaching of Slackline**

This study emerges from a project from an institutional scholarship program for scientific initiation in technological development and innovation sponsored by CNPq from 2013 through 2014. The research aims to show that in recent decades the design of Physical Education sought reference to the court sport, making it a product to be consumed, even if iconographically, by a large audience. However, many teachers are seeking other bodily practices, intending to break with the paradigm which places the emphasis on sportsmanship where Futsal, Volleyball, Basketball and Handball are the main references. Such change is due to an attempt to motivate students and / or expand and contextualize pedagogical actions discussing the current consumer society and its impact on the environment. Slackline, the sport proposed in this work, is conceived as body movement culture, as it is perceived as a language that surpasses the merely driving perspective, allowing to reframe values, intentions and meanings, thus contributing to the development of a process of teaching and learning articulated with social contexts. Therefore, when devising the school routine as a space of cultures, we also seek to set its practitioners, whatever their age group, as producers and reinventors of the product they receive. It is important to clarify that the conception of environmental education in this study is not associated with an ecological perspective, but consists of an approach supported by three dimensions: the ethical dimension (solidarity), the political dimension (participation) and the

aesthetic dimension (the reenchantment). Thus, in relation to the ethical dimension one realizes that the environment is inscribed from a complexity in which solidarity comprises one of the dimensions, the ethical-political perspective included: supportive sensitivity. With regard to the political dimension, the emphasis on solidarity turns the community into a privileged field of emancipatory knowledge that can encompass the planet and the more distant future. It is not being proposed here the use of the notion of participation founded on the ideas of objectivity and collectivity as proposed by the 1980s in an attempt to garner people to claim rights and benefits. What is being proposed is a turn towards the aesthetic-expressive rationality, since, allowing to its open character, it is flexible and unfinished as any work of art, as nature itself and certain domains of social life. From this perspective, the aesthetic-expressive rationality is constituted from three dimensions that emphasize dynamics rather than stability: pleasure, authorship and discourse. So participation is configured as a unique production that can be achieved individually or collectively. This research emerges in this context, articulated to the Studies of Everyday Life aiming to making visible experiences that have been silenced by traditional research. The study seeks to present the sociocultural practices that emerge from the curriculum of a school that works with high school students – tec, as well as concrete and radical possibilities in anticipation of construction actions that open new avenues for emancipatory processes - Sociology of Emergencies. It should be noted that the study is methodologically articulated to the notion of "thoughtpractised" curriculum. Thus, in considering the subjects in their networks of relationships and the production of knowledge through everyday networks, we seek to work with the hypothesis that in the formation of curricula, subjects "learnproduce" ways of "usingmaking" other bodily practices beyond those officially designed by institutional groups, thus breaking with the notion of curriculum related to written documents and pedagogical proposals, but articulates to knowledge constructions through experiments produced and appropriated by the subjects that make up the said space / time, which is, in this study, the course in Industrial Automation IFRJ-VR.

**Adelia Parrado-Ortiz**

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## **Inquiry-Guided Learning Pedagogies: A New Approach to Achieve Collaborative Teaching and Learning**

A new approach to teaching/learning can begin by inquiring with the purpose of answering relevant questions conducive to create a productive way of learning. By the Inquiry-Guided Learning Pedagogies approach students gain knowledge and comprehension through pre-class assignments based on questions posed by the instructor and/or the same students that students need to answer through different ways, for example, by reading an assigned chapter, by watching a lecture, by researching, by completing a lab work, etc. This pre-class activities will prepare the students to more advanced activities in class. In some way, this approach to learning empower the student by giving them ownership to the learning process. The time period in class will focus on application, analysis, synthesis, and/or evaluation, where students have the support of their peers and instructor. This model contrasts from the traditional lecture model in which "first exposure" occurs via lecture in class, with students assimilating knowledge through homework; with this new approach, in some way the instructor flipping the classroom. Based on an article written by Cynthia J. Brame, flipping the classroom "means that students gain first exposure to new material outside of class, usually via reading or lecture videos, and then use class time to do the harder work of assimilating that knowledge, perhaps through problem-solving, discussion, or debates." This presentation will give the participants the opportunity to learn theory, results based on best practices in the fields of Spanish Language, Literature and Culture courses, First Year Experience courses, and cross-listed Humanities courses. Additionally, attendees will also be able to participate in hands on activities to begin the process of flipping their classrooms by using the inquiry-Guide Learning Pedagogies. This new approach to teaching and learning can be adapted to any discipline and field of study.

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&  
**Javier Cachon-Zagalaz**  
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### **Professional Preferences of High School Students at Schools of the Environment of the City of Guadix (Granada-Spain)**

In this paper, which is the result of Teaching Innovation Project of the University of Jaén, are shown the degree preferences of students in their final year of secondary education in schools in the city of Guadix, province of Granada (Spain).

We have used a quantitative methodology based on survey, to extract the information which has subsequently been analyzed using SPSS version 20.

The results obtained from a sample of 110 students are to think over, because their decisions are widely dispersed. They are placed, in order of preference of students' responses, degrees in medicine, philology and translation and interpretation with 7.3%, 7.3% and 5.5%, respectively.

In the discussion we considered the possible comparison with other universities because of the importance that may have the degrees that are offered when choosing.

As for conclusions, it becomes clear that students are not sure what they want to study at University due to three main reasons: a) There isn't a Tutorial Action Plan, itself, aimed at students; b) It will depend on the marks obtained in the entrance exams to University c) It will be taken into account the economic factor of the family in deciding what to study.

**Claudia Souza Passador**

Professor, University of Sao Paulo (USP), Brazil

&

**Joao Luiz Passador**

Professor, University of Sao Paulo (USP), Brazil

### **Analysis of the Performance of Public Schools in Brazil: The Case of Public Policy Rural Education**

This paper aims to provide a historical retrospective from public policy in the rural education in Brazil. The advances in that in Brazil are pointed, mostly from the 1988 Constitution, which allowed the emergence and evolution of public policy and management in the rural education in the country. In this context, although significant growth of popular and governmental interests in the rural education are observed, there is a gap of academic research in the formulation of public management models that analyze such movement. This research organized a systematic framework of ongoing policies and provided some guidelines for improving future interventions in specific area of governmental action. In the second part, the article describes the public policies for rural education and compares the relationship between socio-economic profile of the students, dropout rates and academic performance of students in urban schools and municipalities classified as rural in Minas Gerais (a regional state of Brazil). The analyzes were made from the data of Prova Brasil / Saeb, Censo Escolar and IDEB, conducted by Brazilian National Education Observatory (INEP/MEC/CAPES) in the context of rural development in Brazil. Prepare a database from data made available by INEP with analysis using descriptive statistical techniques and mean difference between groups (t-test and ANOVA).

**Richard Peters**

Assistant Professor, Xavier University of Louisiana, USA

## **Interdisciplinarity in Higher Education: A Layered Analysis of Pitfalls, Potential and Promise**

There have numerous critiques and accusations levelled at traditional, disciplined pedagogical approaches in higher education. Questions related to relevance, functionality and even subversiveness have arisen as educators, administrators and general society grapple with the need to reconcile an age of paramount innovation and critical thinking inaptitude. Many universities have concluded that students need 'diversity in their degrees' which has ushered in an era of inter and multidisciplinary courses and programs. The sciences and humanities have collided, business and medicine have integrated and subject such as Ethics, Culture and even Education have adopted a neo-holistic orientation and appeal.

The argument advocating this interdisciplinary shift relies on its propensity to foster student engagement, imagination and ultimately creativity. By breaking free of the shackles of disciplinary myopia, dogma and rhetoric, contemporary learners can increase their agility and mobility in a volatile environment that demands newness and differentiation. Interdisciplinary teaching and thought provides the basis for such and to many supporters is seen as the next 'great hope' for education. Yet, despite the hype and hubris, even the most fervent apostles of Interdisciplinary education must grudgingly admit that it occupies the fringes of contemporary educational offerings. The grandest and most prestigious universities and colleges do not readily advertise or operationalize themselves around the notion of integrated teaching and scholarship. Functional silos remain, and are in many instances become even more splintered through exaggerated specializations. This drive to reductionism and niche carving, while noteworthy for its richness, is one potential obstacle to the true progress and acceptance of Interdisciplinary studies.

I propose in this study that many such obstacles exist at the individual, organizational and institutional level and that they are both reinforcing and inter-depend. Thus, removing one or one type of impediment is unlikely to alter the existing state. Correspondingly, coordinated efforts by multiple stakeholders is required to empower and facilitate sustainable transformation. Examples of such efforts are provided in the study.

The research uses a case study approach that highlights one University's approach to incorporating and developing its Interdisciplinary Strategy. It identifies the barriers at each level,

describe antecedents to these barriers as well as discusses real vs ideal solutions to the organization's struggles and channels. It therefore seeks to bring clarity, comprehensiveness and control to the concept and practice of Interdisciplinary Teaching.

**Joran Pieper**

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## **Exploring the Essence of Software Engineering in Academic Education – An Integrated Game-Based Approach**

The development of complex software systems demands for well-educated software engineers, capable to choose the right tools, practices, methods and processes to accomplish dynamic requirements. Key challenges of software engineers today and tomorrow include increasing diversity and the need for shortened delivery times while guaranteeing trustworthy quality. Different scenarios require to consider different aspects and to set different priorities. Software engineering education has to take this diversity into account. It has to offer a well-founded range of knowledge to enable tomorrow's software engineers.

It is broad consent, that beside all technological aspects and tools a profound knowledge about software practices, methods and processes, which describe approaches to the production and evolution of software, are crucial for successful applications of software engineering.

With the *SEMAT Essence Kernel and Language* the SEMAT initiative delivered a language and a kernel which describes the essential elements commonly inherent in all software engineering endeavors. This kernel is designed to be practice and method independent, extensible, practical and actionable. It provides valuable support to teams in all kinds of software engineering endeavors through consistent and continuous health and progress assessment of all relevant dimensions. Its distinct characteristics make the kernel an extremely valuable teaching and learning tool for SE education.

To gain a deep understanding of the kernel and its applications an active engagement with the topic is required. For that purpose different supporting tools were developed by the project team to support an explorative and situated learning arrangement.

This paper describes these tools and proposes an integrated approach to explore the essence of software engineering based on the use of the *SEMAT Essence Kernel* through providing an engaging and motivating learning environment which complements interactive lectures and course projects by utilizing simulation and digital game-based learning.

**Olga Poljsak Skraban**

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**Spela Razpotnik**

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**Nada Turnsek**

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&

**Jana Rapus Pavel**

Assistant Professor, University of Ljubljana, Slovenia

## **Preschools and Schools Responding to Vulnerable Families with Children**

The systems of early childhood education have a long tradition of support and prevention programmes aimed at vulnerable families with young children. European countries are implementing diverse measures aimed at early intervention in assisting children in families with an accumulation of risk factors. Problems in these families are multi-layered and include the intersection of physical, psychosocial and other forms of distress. These are “families with multiple problems”, in which there is a circular interaction of difficulties in different areas of exerting control over one’s life. The multidimensional nature of the problems of these families is closely linked to the fact that there are many institutions in the field of education, social welfare, health care and others, in which treatment and support is more or less consistent and more or less adapted to their needs, or satisfactory.

The challenge for the modern profession is how to design innovative practices of working with vulnerable families, which would stem from their needs and specifics, be grounded in their habitat and connect with each other synergistically. In our research, narratives and experiences of professionals as well as of families in the field of early childhood education (and other related parties) were collected using semi-structured interviews. The article focuses on life experiences and difficulties encountered by vulnerable families in terms of parenting, involvement in the local environment, social capital, development of support networks, reconciliation of work and family obligations, and inclusion of their children in preschool and school; furthermore, it explores what kind of support is needed by vulnerable families in order to better cope with their life's challenges. We will present how the institutions are responding to the needs of this population with their practices, which are becoming more flexible and of better quality.

**Jana Rapuš Pavel**

Assistant Professor, University of Ljubljana, Slovenia

## **Collaboration of Parents and Educators in Cases of Children Placed in Residential Care Homes – Parental Perspective**

The paradigm of residential child care, providing education and care outside the family, is changing worldwide. The emphasis is shifting from a narrow child-focused approach to a more child-and-family centered one (Milligan in Stevens, 2006). Proponents of family-focused models view professionals as instruments of families, and they promote interventions that are individualized, flexible, and responsive, and support and strengthen family functioning (Geurts, Knorth, and Noom, 2012). Several Slovenian studies (Kranjčan, 2006; Mikša, 2013, Rapuš Pavel, Kobolt, 2008 ) draw attention to the difficulties of maintaining collaborative partnership with parents that is based on trust and contact. They point out to the systemic and situational barriers as well as professional barriers, faced by the staff (ibid.) In Slovenia, the aspect of collaborative partnership has not yet been highlighted and examined from the viewpoint of parents. Sinclair and Gibbs (1998, in Kendrick, 2008) established that any family can have difficulties when approaching collaboration with an institution, where the child/young person will reside (or already resides in), since the connotation of residential care is one of parental failure and potential power of the professionals. This is why the attitude and approach to work by care professionals is so important. Collaboration with the family is important throughout the child's stay in care outside the family in order to enable the child to have days outside the residential home (Geurts, Boddy, Noom and Knorth, 2012). Collaboration with the family requires recognition of the needs and an activation of all participants, since the main objective of placing a child/young adult in care is to reintegrate him or her back with the family (Grupper, Jaffe, 2007, Geurts at all, 2012).

We introduce the findings of a qualitative research study that included 35 parents with children in different residential care homes throughout Slovenia. The aim of the study was to analyze and evaluate the experiences and needs of parents that could contribute to a better collaboration with the educators. We carried out personal semi – structured interviews, which were analyzed by using the content analysis method (Vogrinc, 2008). The consolidated findings show that the parents emphasized as important for good collaboration the following: communication and dialogue (listening, educators using

every-day language that parents can understand, respectful attitude, not blaming them for the child's problems, etc.), being informed, included and accepted as an important part of the team. The results also reveal differences in the level of satisfaction and the need for better collaboration according to the socio-economic status of parents.

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**Susan Horky**

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**Arwa Saidi**

Pediatric Cardiologist, University of Florida, USA

**Angela Miney**

Parent Liaison, University of Florida, USA

&

**Jenna Gonzelaz**

EdHCT Program Coordinator, University of Florida, USA

### **The Education and Healthcare Transition (EDHCT): Supporting Systems Change for Young Adults with Invisible Chronic Illness (ICI)**

Medical advances have increased the number of youth with chronic illness living into adulthood, necessitating that they prepare for adulthood. Approximately 15-18 % of all children have a chronic illness (University of Michigan Health System, 2011) such as Asthma, Diabetes, Cystic Fibrosis, Cancer, Aids (Grady, 2009). Students with invisible chronic illness (ICI) are more likely than they were in 1990 to live into adulthood based on a comparison of census data (U.S. Census Bureau, 2011) indicating lower death rates from Diabetes Mellitus (10%); Chronic Lower Respiratory Disease (10%); Cerebrovascular Disease (32%); Cancer (11%); and Diseases of the Heart (28%). Students with ICI need to learn how to navigate adult healthcare services and strategies for job/community/family success.

Typically, special educators plan for education transition, and healthcare providers plan healthcare transition (but the word “transition” is defined differently in the two fields (Blum, 1995). Students and families are asked to straddle these two fields that often do not collaborate to support students with ICI. Since healthcare and educational interests are integral parts of each child and the adult he or she will become it is crucial to integrate education and healthcare transition services (Repetto, et al., 2008).

This presentation will discuss the activities of the University of Florida Interdisciplinary Collaborative on Healthcare and Education Transition that are designed to increase collaboration between the healthcare and education systems related to transition processes. We will first present background information on each type of transition. We will then discuss the results of studies we have conducted independently in healthcare and education settings. These studies demonstrate that healthcare providers and educators know little about,

but would like to learn more about, the transition process in the complementary setting. We will provide several possible models for integrating education and healthcare transition and discuss the UF online graduate certificate in Education-Healthcare Transition (EdHCT). We will conclude with concrete suggestions on how to increase collaboration between the healthcare world and the education world when working with youth in transition.

**Trish Rooney**

Director and Principal, The Academy of Popular Music, Ireland

## **The Understanding of Contemporary Vocal Pedagogy and the Teaching Methods of Internationally Acclaimed Vocal Coaches**

As a result of the growing interest in popular singing, and growing interest in TV shows like '*X Factor*', and '*American Idol*', many pop singers are realizing the importance of building a solid vocal technique.

Because of the lack of understanding of the physiology of the voice, historically much teaching has been based on misconceptions about how to sing correctly and has been passed from generation to generation almost like a Chinese whisper (Chapman 2006, Love 1999, Riggs 1994, Clarke 2013). Voice pedagogy has advanced greatly over the last twenty years incorporating medical facts, scientific methodologies and analytical rigor into traditional approaches. The research reported here aims to develop a greater understanding of pedagogy as it applies to CCM by interviewing ten internationally acclaimed vocal coaches and asking them to indicate what approach they would have to addressing the difficulties of two singing students presented to them on video.

Epistemologically, this research adopted a phenomenological approach and semi-structured interviews were used. The research has generated some very specific lessons for vocal pedagogy. It has shown that: teachers need to base their teaching on an in depth understanding of the physiology of breathing and singing rather than just teaching how they were taught and tailor their teaching to the needs of individual students as well as be aware of the latest developments in vocal pedagogy; there are differences between teaching singing in the classical and CCM styles; learning about specific styles requires specific training. Teachers should: have professional performing experience; encourage and support students; help their students to become emotionally aware and communicate emotionally with the audience.

Education is ultimately concerned with the improvement of practice. My aim is that this study may contribute to the development and re-evaluation of the teaching and learning of contemporary singing in Ireland and provide a strong and comprehensive vocal methodology.

**Ellen Rose**

Professor, University of New Brunswick, Canada

## **Reflection in Online Learning: A Systematic Literature Review**

Reflection is a term which appears often in the discourse of education. For many years, it has been identified as an important component of the learning process in face-to-face classrooms (e.g., Boud & Walker, 1985; Dewey, 1933; Hullfish & Smith, 1961), and more recently it is frequently offered as the key to “deep” learning in online environments that seek to transcend mere information delivery (e.g., Kippen, 2003; Quinton & Smallbone, 2010). However, although researchers and instructors agree that reflection is “a crucial link between experience and learning” (Roberts, 2002, p. 40), there is surprisingly little agreement on what it actually means or how it can be fostered in e-learning. For example, some studies report on the use of individual learning experiences, such as journals and e-portfolios, to enhance reflection in online courses, while others see reflection as a more social phenomenon, emerging from a community of learners engaged in collaboration and reflective dialogue. An analysis of the body of research on reflection in online learning reveals not only a lack of consistent understanding about what reflection entails, but also scattered research evidence about reflection “triggers,” or antecedents, in online courses, making it challenging for online instructors to understand how reflection can best be fostered in online environments. The purpose of this systematic review of the literature is therefore to offer a more consolidated picture of the nature of reflection in e-learning.

**Nancy Sardone**

Associate Professor, Georgian Court University, USA

&

**Roberta Devlin-Scherer**

Professor, Seton Hall University, USA

## **Games & Gamification as a Strategy to Enhance Critical Thinking**

Gaming, in its many forms, is becoming a more active force in classrooms. Gamification, applying game like elements to non-game contexts serves as a strategy to entice teachers to try classroom-based games to teach content. Features of games that make them attractive to students are applied to traditional activities, making tasks more stimulating and engaging. Classroom-based games are guided by Gee (2004) as “particularly good places where people can learn to situate meanings through embodied experiences in a complex semiotic domain and meditate on the process” (p. 26). Games scholar, Steinkuehler (2010) describes games are narrative spaces that the player inscribes with his or her own intent. Through a game interface, students can be cajoled into doing tasks that otherwise may seem onerous. Students may simply deem games as more interesting spaces in which they prefer to learn. Although Steinkuehler’s research is in video games, the same basic principles can be applied to games that are designed to be immersive in content and evoke critical thinking.

As part of curriculum standards, teachers are being asked to facilitate the development or piloting of digital games that teach content (New Jersey, 2014). Although this paper does not yet address the development of digital/virtual games, it does report on preservice candidates’ development of board games using a gamification strategy to teach content. The next step in this work-in-progress is to ask candidates to develop digital games for classroom use, perhaps even converting their board games to digital/video game format. The first section of this paper is a definition of gamification. The second part of this paper discusses learning theory associated with game play. In the last section, we share original games that teacher candidate designed across three content areas: social studies, English, and math to be used in grades 4 through 12.

**Hulya Saygili**  
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### **Why Do They Think They Cannot Succeed?**

This paper aims at presenting reasons for failure in English as a Foreign Language (EFL) as far as reported by students in the context of a newly-founded Turkish state university. The literature provides abundance of research mostly investigating failure and success in EFL in the context of ELT and prep class students (Öztürk and Tılfarlıoğlu, 2007; Tosun 1987; Işık, 2008; Sezer, 1987; Yıldız, 2006; Çakır, 2007; Aküzel, 2006; Ayhan, 1999). However, present study, unlike others, is dedicated to describe the EFL setting in a peripheral university. Thus, it is considered a significant study as it attempts to shed light onto a higher education institution where prep class or any philological department is not available. The study was carried out in Kilis 7 Aralık University, which is located on the Syrian border in the southeast of Turkey. 439 students participated in the study on a voluntary basis. The sample was selected from the second grade students. Study data were collected by using two instruments such as questionnaire and semi-structured interviews. Thus, both qualitative and quantitative data analysis methods were used accordingly. The data obtained from questionnaires were analyzed with SPSS, and interview documents were analyzed by using content analysis. It was found out that students attribute their failure in EFL to three main factors in a decreasing order of emphasis: insufficient efforts by learners, attitudes of university instructors, and environment of the university. The results of the study will be discussed in relation with findings from similar studies in the literature. As a result, recommendations will be made with probable effect of improving EFL education at tertiary education in Turkey.

**Eliane Schlemmer**

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### **Gamification in Hybrid and Multimodal Coexistence Spaces: Design and Cognition in Discuss**

The paper emerges from the research "GAMIFICATION IN HYBRID AND MULTIMODAL COEXISTENCE SPACE: AN EXPERIENCE IN HIGHER EDUCATION" and objectively understand and discuss the cognition-design relation in teaching, in the context of configuration of Hybrid and Multimodal Coexistence Space, from the perspective of Gamification. The research is exploratory and qualitative approach, using Design Research and Cartography as methodology and as instruments: observation, digital photographic records, digital video records, digital audio records and written records. For data analysis uses discursive textual analysis. The main results show that the design - cognition in teaching , occurs when the teacher is active builder subject of design and is central to assign senses to an innovative practice, precisely because "being in the situation" and thus able to speak "from inside", from your own learning process. So, as a conclusion we can say that the cognition- design relation, in the teaching, mainly linked to configuration Hybrid and Multimodal Coexistence Spaces the perspective of Gamification, occurs when the teacher configure , along with the students , these living spaces in the other is recognized as legitimate in the interaction and therefore as someone with whom they can learn.

**Davida Scharf**

Director of Reference and Instruction, New Jersey Institute of  
Technology, USA

### **Research Roadmaps: A Practical Model for Embedding Critical Thinking, Research Skills and their Assessment across the Undergraduate Curriculum**

In 2005 UNESCO highlighted the importance of *information literacy*, the ability to seek, evaluate, use and create information effectively in a digital world. Thus methods for teaching, evaluating, and improving teaching effectiveness for these skills are needed. Teaching students to use information efficiently and effectively poses a particular challenge because the information landscape varies greatly by subject and must be highly contextualized within a discipline. At the New Jersey Institute of Technology, a practical model for embedding critical thinking, writing, and research skills in courses across the undergraduate curriculum was developed by an instructional librarian. This method has been used in writing courses, social sciences, sciences, business, engineering and computer science. Online or hybrid learning has been used since 2009 where a combination of course management software, online documents and library guides are used in a flipped classroom model. Librarians and disciplinary faculty collaborate to construct assignments that facilitate learning and assessment of the integrated core competencies of critical thinking, information literacy, and writing. The learning goals, design of the learning experiences, and the grading and assessment criteria follow Bigg's theory of constructive alignment and employ a rubric, or its derivative, that has been previously tested and validated. The librarian may grade and always provides feedback to students on one research assignment. Over several semesters, direct and consistent assessment of student work enables the instructional team to analyze the level of student engagement with the assignment, effectiveness of instructional components and activity sequencing, to understand which elements are successful and which are less so. Thus the librarian and faculty member are able to close the assessment loop by making adjustments to the syllabus for continuous improvement. In addition to direct assessment of student work, surveys have shown that students and faculty have found the program effective.

**Alice Shama**

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&

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## **More Education Program: Dealing with Inequalities within Brazil's Educational System**

During the last twelve years, the Brazilian education policies have changed due to the fact that the federal government has focused on *social development* that means to promote economic growth and reduce inequalities. In this context, the quality of public education (in all the levels) is an important way to the *development*. This conception represents a change because in Brazil's history, the quality of public education has not been perceived as a right for every citizen. As a consequence, good quality private schools have emerged creating a gap between wealthy and middle-class students and economically disadvantaged ones. In basic education, both public and private sectors have adopted a part-time school system. High-income families engage their children in different types of activities, outside class hours, such as foreign languages, arts and sports, in order to improve their social capital.

This study examines the main aspects of a program called *Mais Educação* (literally, More Education). Created in 2008 by Brazil's Ministry of Education (MEC), the program primary goal is to increase school hours (from four to seven) in public primary schools with different activities of arts, sports and also to improve students' performance on basic disciplines such as Maths and Portuguese. The program targets students with low-income background. We argue that this program represents an efficient tool to break the poverty cycle since it offers students educational opportunities by enhancing their social capital, but there are limits.

One of the limits is related with the lack of schools' infrastructure. According to the last National Census Synopses (2009), only 27,5% of the public schools had any appropriate space to the practice of sports. The information about arts and music are not considered in the Synopses.

Despite being a very important feature to reduce social inequalities by improving the quality of education, the program's beneficiaries are only 12,5% (3,1 million) of public school students. We come to the conclusion that this program is changing the meaning of education (time and subjects), and consequently the definition of quality to poor

people. However, there are social disputes and conflicts about these conceptions that have been impeditive for governments to make more solid changes in the educational system.

**Lourdes Helena Silva**

Professor, Universidade Federal de Vicosa, Brazil

&

**Elida Miranda**

Professor, University of Tocantins, Brazil

### **Rural Education and Rural Extension: Paulo Freire Contributions to the Agrarian Residence Program**

In the recent years, In Brazil, we have been witnessing the consolidation of a national movement that, through dialog and initiative of social individuals in the rural areas, new principles and practices have surfaced in terms of rural education. An important tool in the construction of the Rural Education is the Agrarian Reform National Education Program -PRONERA. Among its actions, we highlight the Agrarian Residence Program, whose purpose is the training of professionals to excel in the rural extension, in the Agricultural Family and Agrarian Reform fields, simultaneously as subjects of change and rural educators. In this present framework, our goal is to present the Agrarian Residence Program in its political pedagogic principles, analyzing the contributions of the Freiran Pedagogy for the development of educational practices targeted to the social transformation. In methodological terms, the technical procedures of the research included interviews, bibliographical and documental analysis that, in its turn, were organized and systematized through the Analysis Content Method. Our observations revealed that the utilization of the Freiran referential in the Agrarian Residence Program has become a propeller of significant transformations, with emphasis for emancipatory educational practice constructions, as well as new social and political relationship between universities and social movements.

**Carla Silvanira Bohn**

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**Joao Bosco da Mota Alves**

Professor, Federal University of Santa Catarina, Brazil

&

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### **Electronic Games and Its Contribution to Educational Practice: A Study from the State Public School System by the Perception of Educators**

This paper seeking to approach the study of electronic games with education, linked to problems plaguing the educational field, with regard to the search for solutions for better utilization of the potential of the media, and, having as mediators of this process educators the public education, the central objective was to understand the contribution of electronic games incorporated into curricular activities in their perception. To achieve this goal, we conducted a field study by traversing thirty schools in thirteen counties that comprise the Florianópolis, including the capital, applying a questionnaire that obtained answers from three hundred and six teachers from three hundred thirty-six applied. Based on the qualitative approach the study described the reality from the spot searching for answers that might reveal an overview on the researched topic. The foundation on General Systems Theory Bertalanffy, Kolb's Learning Theory and the Theory of Flow Mihaly allowed a perspective that transcends the traditional way of teaching, to see learning as a holistic process, pleasurable, involving all activities the human being, thinking, feeling, perception and behavior, making it possible to link theory with practice. From this premise, and approaching the general aspects of learning, we can find in certain practices, experiences that stimulate creativity, insight and reflection. As a result, it was possible to understand that electronic games introduced to pedagogical activities can be facilitators in the teaching-learning process, establishing teachers as mediators. The research reveals a tendency to need to find ways to present the contemporary educational practice solutions that advance the work of the educator, following his public and making its more interactive and enjoyable activity, provides a significant leap in the teaching-learning process.

**Heikki Silvennoinen**

Professor, University of Turku, Finland

&

**Matti Lindberg**

Senior Researcher, University of Turku, Finland

## **Skill Level Differences Between the Employed and Unemployed in High-Skilled Countries**

The Programme for the International Assessment of Adult Competencies (PIAAC) conducted by OECD in 2012 revealed interesting differences in tested skills between the employed and the unemployed. Quite expectedly, in average, the employed score higher than the unemployed in literacy and numeracy tests. The result is very well in line with the human capital theory. But, what is more interesting is the observation that there are huge differences in skill levels of the unemployed between countries, also between the highest scoring countries. For example, the employed in Sweden score much higher in the literacy tests than do their unemployed fellow citizens. In Finland and Australia the difference between the employed and unemployed in literacy proficiency is smaller than in OECD countries in average. The case of Japan is strikingly different from the other top ranking countries: the unemployed score higher in literacy tests than do the employed Japanese population. Research problem: The aim of this paper is to analyze the skill differences between the employed and unemployed people in the six highest scoring countries, Japan, Finland, Netherlands, Sweden, Australia and Norway, using the PIAAC-data from 2012. What is the role of (a) formal qualifications (level of education, diplomas) and (b) the actual proficiency (tested skill level) in protecting individuals from unemployment in different countries? Data: In PIAAC the proficiency of adults from age 16 onwards in literacy, numeracy and problem solving in technology-rich environments were assessed. These skills are thought to be “key information-processing competencies” relevant to adults in various social contexts and work situations, and necessary for fully participating in the labour market, education and training, and social and civic life. The target population for the PIAAC survey was the (non-institutionalised) population residing in the country at the time of data collection, irrespective of nationality, citizenship or language status. Around 166 000 adults aged 16-65 were tested and surveyed in 24 countries and sub-national regions: 22 OECD member countries – Australia, Austria, Belgium (Flanders), Canada, the Czech Republic, Denmark, Estonia, Finland, France, Germany, Ireland, Italy, Japan, Korea, the Netherlands, Norway, Poland, the Slovak Republic, Spain,

Sweden, the United Kingdom (England and Northern Ireland), and the United States; and two partner countries – Cyprus and the Russian Federation. The achieved samples ranged from a minimum of approximately 4 500 to a maximum of nearly 27 300.

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**Gloria Walkyria Arrigoni**

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**Daine Agostini**

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&

**Lucas de Almeida Brito**

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## **Identity Construction at Brazilian Public Universities in the Context of Recent Struggles and Policies**

This work relies on the notion of a pluralistic democracy, as formulated by Chantal Mouffe, to analyze the construction of social identities – related to race and socioeconomic class – of university students, in the context of new struggles and policies in Brazil. The Enlightenment notion of universal citizenship and the rationalist view of the individual as a universal category are challenged by the new rights that are presently being claimed in Brazil based on particularities such as gender, race and social class. Lately greater equality has been favored through new public policies increasing the participation of minorities at the university, as well as through laws protecting women against violence and allowing same-sex civil unions; at the same time such issues as homophobia and bullying are gaining visibility in the official realm as well as in other venues, such as the media. These occurrences, in a society traditionally patriarchy-centered and marked by social exclusion like ours, raise tensions and lead to displacements in the construction of social relations and identities. Our research, undertaken at two public universities located in the city of Rio de Janeiro, focuses on how such discourses and practices are influencing the identity construction of students attending health and science courses (medicine, microbiology and nursing). We take into account the broader Brazilian social historical context as well as the culture of the institutions and courses. Interviews with students and teachers and observations of non-formal activities – in academic centers, meetings etc. – is evidencing varied and conflicting subject positions and their construction in the intersection between the new rights and the power relations that establish hierarchies and subordinations. As implied in the notion of pluralistic democracy, there is a need for the hegemony of democratic values, so that a multiplicity of identities can be formed within a democratic framework.

**Suegnet Smit**

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## **Using Participatory Visual Strategies to Orient Grade 12 Learners to Make Constructive Career Choices**

Some Grade 12 learners in South Africa face limited opportunities to reach their chosen careers, because they live in challenging socio-economic circumstances. This may lead to them not having hope to attain their dream careers and therefore they might not make constructive choices for life after school.

A western approach to career guidance that focuses on giving information on different careers may not be enough to empower learners in socially economic challenged contexts to make constructive career choices.

Therefore the question arise how we can assist learners, not only to access information on careers, but actively involve them to set future career goals despite their adverse circumstances.

The purpose of this study was to qualitatively explore whether or not participatory visual strategies, in particular mind mapping and photo voice, could be used effectively to help orientate learners to make constructive life and career choices.

**Constantinos Sourkounis**

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&

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## **Battery Management System Tasks in an Electric Vehicle**

Despite a number of advantages of electric vehicles (EV) the sales suffer under various limitations of the EV compared to standard vehicles with combustion engines. The main disadvantage is the ratio between charging time and range. Both is controlled and limited by the accuracy and features of the battery management system (BMS). Accordingly some features limit the charging power and a lack of accuracy or features limit the usable battery energy and therefore the vehicles range.

Influential features of the BMS are discussed and their repercussions on the range and charging time as well as safety are discussed. The main features are parted into passive and active features. Passive features have no direct effect by the BMS if at all than by external controllers such as from the EV or a Quick Charger. Active features allow direct influence on the Battery by active elements. Active elements allow the limitation of current or the control of the batteries temperature. As a battery in EVs consists of numerous cells arranged in stacks or modules another active feature is the cell balancing. Cell balancing allows a higher utilization of the Energy stored in the battery cells. Various realization possibilities of balancing are illustrated in the paper. Passive features give information to the vehicles' control system like the state of charge (SOC), the state of function (SOF) and the state of health (SOH). Depending on the accuracy of the BMS the vehicles' control system may prohibit function before the battery is completely discharged. Various realization opportunities as well as the related influence on the range and the charging time are discussed in the paper to maximize the range - charging ratio.

**Rebecca Spooner-Lane**

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### **Authentic Assessment for Learning in a Capstone Experience for Teacher Education**

Capstone units have the identifying feature that they are culminating learning experiences which are designed to bring reflection and focus to a whole course of study while, at the same time, leading students toward their entry into a new world of work (Humphrey Brown & Benson, 2005). The capstone experience described in this paper runs as a 3-day conference, called the *Stepping Out Conference*. The conference is organised as one subject and is mandatory for all 4<sup>th</sup>-Year graduating students (approximately 480 students each year). The conference is organised with key note speakers, panel sessions, breakout sessions, workshops and career market stalls. Of particular importance for a successful capstone experience is relevant assessment that is designed to measure students' actual knowledge and skills as they relate to 'authentic' real life situations (Darling-Hammond, 1991) with a display of these as competencies. A key to the assessment pieces for the education students at the Stepping Out Conference is that they allow students to demonstrate their learning through an authentic activity. Students are required to present a poster to peers, indicating how they have met each of the 10 QCT Standards either through their course work, their field experience or information gathered from the Stepping Out Conference, or through all three. Peers provide written and oral feedback on the poster presentations. Students then submit a reflection on how they have met the Standards for final assessment. Having students take on the role of presenter as part of their capstone experience can be seen as an effective way for students to begin thinking of themselves as professionals rather than as continuing students.

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&

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**The Build-Up of a National Community of Practice in  
Science Teaching**

Collaborative and cooperative learning refer to a method used to achieve an educational goal as learners work together for the fulfillment of a given task. Collaborative learning was proved to assist students to reach better achievements, to develop more effective psychological and social connections, to improve social behavior and to increase their self-esteem.

Through collaborative learning students are trained to work in group in a cooperative manner rather than in a competitive way, to construct knowledge rather and memorize information, to participate to decision making, to select the appropriate means to solve a problem, to have an increased control over the learning process, as this approach is student-centered. ICT is seen as an opportunity to promote and support collaborative learning, virtual environments, being both a tool and a medium for educational activities.

The i-BEST project (Inquiry-Based Education in Science and Technology, <http://education.inflpr.ro/ro/IBEST.htm>) has as major focus science teaching by inquiry-based learning. In the frame of this project we propose to schools (from kindergarten to middle school) different activities supported by appropriate learning units and training kits, in the field of science of measuring, optics, acoustics, electricity. Some of the learning units are original and some are translations from European or American projects. These learning units are part of the e-learning platform we developed, the TeachScience platform, which includes also a virtual library (<http://81.181.130.13/teachscience/>). School activities related to science learning are supported by a collaborative platform, aiming to create a nationwide community of practice (<http://81.181.130.13/ibest/>). As compared to the “classical” approach on collaborative learning, when students organized in small groups are solving a problem, in our implementation we are trying to channel the efforts of different schools, with various development and achievement levels, and spread across the country, towards the inquiry on the common science subject. The present paper refers to two of the inquiry-based science activities we run in the context of this

collaborative platform to support science teaching and learning from kindergarten to middle school. Two of inquiry-based science activities are described, activities designed to develop children observation, measuring and reporting skills in science classes. Technological aspects of the educational process are supported as school students are taught to build their own measuring instruments, learning in this way their operating principles.

**Elizabeth Sturtevant**  
Professor, George Mason University, USA

## **Designing Effective Professional Development Programs for Teachers: Principles Developed from Research and Experience on Three Continents**

School leaders and supervisors are usually responsible for insuring that teachers in their schools provide effective instruction. This requires continuing opportunities for in-service professional development at the school and district level, yet leaders may face many difficulties in providing opportunities for teachers to continue to learn as they teach. This paper, based on the author's experiences in leading professional development programs in the United States, Eastern Europe and Zambia, as well as the research literature, will provide key principles for developing an effective professional development program in a school or district. The Principles focus on key elements including mentoring, time, sources of funding, the value of teacher inquiry, creative uses of technology, and using data to support instructional decisions. Local contextual conditions and cultural influences will also be considered. During the presentation, time will be allowed for discussion and participants will be invited to participate in an online community related to teachers' professional development.

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&

**Nalan Akduman**

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## **Exploring Teacher Candidates' Views on Education Reforms**

Education reforms become inevitable as a consequence of social events, technological and economic developments all around the world. In many parts of the world, the main purpose of education is to train individuals who are open-minded and can adapt to innovations easily. In order to realize this purpose the schools and education stakeholders are forced to change. Sometimes small-scale reforms are made such as changing the name and/or duration of a course. Educational reforms may sometimes large-scale, such as all the components of curricula – objectives, contents, instructional methods, and assessments techniques – can be changed.

Dissatisfaction with and distrust of the educational reforms is a global phenomenon. Education stakeholders are stressed and tired when changes in education has been done too frequently. Education reforms often carry more meaning than the most people noticed. If the people do not respect the reforms, even the well-intentioned change initiatives will harm rather than benefit to the schooling. Understanding the views of education stakeholders about the education reforms is necessary to ensure the continuation and success of education reforms.

Therefore, this study aimed to uncover the awareness and views of secondary school teacher candidates about education reforms. The data were collected in 2014-2015 academic year by using semi-structured interviews. 30 candidates from teacher certification program were asked whether they know the reasons of education reforms and whether they were aware of the recently made education reforms.

The findings of this study revealed that the majority of prospective teachers are not familiar with the reasons of recent education reforms. Nearly all of the prospective teachers believe that the educational reforms made by and for the benefit of government. They also stated that the educational reforms provide little benefit to students and teachers. According to prospective teachers educational reforms should be made by society and for the benefit of the public. While the majority of the candidates under the study criticized the commercialization of education, only one third of them believe that education reform mean to make innovations in education. They stated that educational reforms

are carried out in accordance with the efforts to sustain the management of politicians.

It is hoped that the results of this study contributes to the literature on education reforms. Besides, the findings of this study will be beneficial to teacher educators and education policy makers to develop deeper insight on the importance of increasing teacher candidates' awareness about the education reforms.

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**Lucia Morales**

Lecturer, Dublin Institute of Technology, Ireland

&

**Amparo Soler-Dominguez**

Lecturer, Jaume I University, Spain

## **Self-Regulated Learning and the Role of ePortfolios in Business Studies**

Through a case study supported by observation techniques, and the use of questionnaires to gather data, we explored the use of ePortfolios, as an efficient assessment tool to assist students pursuing a business degree. Our main focus of attention was a postgraduate course, where finance modules were a major component of the degree. We conducted an analysis on the role of ePortfolios in HEIs (Higher Education Institutions) that lasted four academic years (2008 to 2012). Our findings suggest that ePortfolios could be used to facilitate and enhance students' self-regulated learning, where the role of the instructor was viewed as fundamental at early stages of the learning process. Overall, students' judgement of the ePortfolio, as a tool to complement their education was very positive, as they found that their learning experience improved in a significant manner by being able to benefit from breaks on their traditional learning approach. The evidence suggests that ePortfolios could be used to support technical and complex modules under a controlled environment that sustains students to avoid them losing focus on their core studies, but that at the same time they are flexible enough to allow them to be creative and to integrate their own ideas and views while learning. This study allowed us identifying the true potential and value of ePortfolios to support business students. We were able to recognize how the tool could be used to enrich assessment and learning strategies in HEIs that foster student involvement in the learning process. In addition, the tool helped us to bring new dynamics to the traditional learning and teaching model where the student is challenged to take ownership and self-regulate his/her own learning.

**Costantino Thanos**

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## **The Future of Digital Scholarship**

This paper advocates that connectivity is the technological foundation of the future digital scholarship and argues that the characteristics of modern science, i.e. data-centric, multidisciplinary, open, network-centric and heavily dependent on internet technologies entail the creation of a linked, semantically enhanced scholarly record.

A scholarly record is taken to mean the aggregation of scientific journals, gray literature and conference presentations plus the underlying datasets and other evidence to support the published findings. However, the communications of today's scholars encompass not only journal publications and underlying datasets, but also less formal textual communications and a variety of other work products, many of them made possible by recent advances in information technology. This evolving scholar record can also include news articles, blog postings, tweets, video presentations, artworks, patents, computer code, and other artifacts.

The vision of a world in which all scientific literature and all scientific data are online and interoperating is rapidly becoming a reality. Building linked discipline-specific scientific records will provide crucial support to modern science by producing radical changes in the scientific method, greatly contributing to educating young scholars, revolutionizing scientific publication, and increasing the productivity of scientists. It will produce a shift in scientific practice from advances based on the traditional scientific method to advances being driven by patterns of data. New insights will arise from connections and correlations found between diverse types of information resources. Another shift will be produced in scholarly information seeking behavior; moving rapidly through the linked scholarly record and identifying relevant information on the move will become a fundamental activity.

To make this happen the next generation of CyberScholarly infrastructures must be developed.

By *CyberScholarly Infrastructure* we mean an enabling framework for data, information and knowledge discovery, advanced literature analyses, and new scholar reading and learning practices based on linking and semantic technologies.

**Karen Trimmer**

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## **Development of a Questionnaire to Measure Risk-Taking in Decision-Making by School Principals**

A difficult nexus can arise in positivist research of developing an hypothesised model or a theoretical framework that is then used to underpin the construction of measuring instruments, where that instrument is subsequently used to test the assumptions underlying the model. This paper explores this nexus through consideration of a study of risk-taking in decision-making for public school principals in Western Australia. Western Australia is one of six Australian States. It is geographically diverse, including extremely remote schools serving Indigenous communities. A theoretical model of factors impacting on reasoned risk-taking in decision-making was developed. However, measurements of risk-taking in decision-making in existing studies related to business environments and were judged not to be transferable to an educational context. This introduced the nexus, which is an unavoidable complexity in exploratory research where there are not pre-established measurement instruments. A survey questionnaire therefore had to be developed to measure the constructs included in the research model. For each of the constructs in the research model, measurement items were developed with reference to the literature and findings from preliminary qualitative research that had been conducted previously. The design of the questionnaire and development of items utilised findings from research in measurement theory, to structure the items and the response scales to measure constructs in the model. Data was provided through questionnaire responses from a stratified random sample of principals in 253 Western Australian public schools. Rasch modeling was then used to analyse the resultant measurement scale. This analysis provided evidence that the measurement scale was valid and reliable to a degree that allowed confidence in using the measures to analyse the structural model. The model was analysed using Partial Least Square (PLS) based structural equation modeling. This part of the analysis examined the relationships among the constructs included in the model to determine whether the measured data supported the hypotheses. The results supported concepts included in the model and consequently provided insight into governance structures, characteristics of schools and principals that influence decision-making in schools.

**George Tsakirakis**  
Lecturer, United Arab Emirates University, UAE

### **Computer Adaptive Tests: An Indicator for Academic Achievement?**

The advancement of technology offers alternative methods of examination to the large-scale assessment market and leads to a far more flexible test management environment. As academic establishments strive for consistency and reliability, the adoption of a standardized testing approach seemed panacea in deciding which students to accept from their pool of applicants, who will successfully complete their academic programs.

The Computer Adaptive Testing (CAT) mode came to diminish the chasm among traditional examinations of high cost, excessive administration time and human error, by offering a systematic – standardized testing– approach of enhanced security, increased efficiency and high level of accuracy for all test-takers.

This paper reviews the large body of research, explores the interrelation of test taker scores with future academic success and raises concerns regarding its implementation.

**Christina Tsiolakki**

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## **Practical Guide to Effective Leadership for School Managers**

School leadership aims to set direction and goals, plan the progress and organize the available resources in order to achieve educational goals and monitor the process. As school effectiveness is based on managerial decisions and actions, leadership-related challenges are commonly associated with the non-application of specific skills. This research outlines the importance of some key strategies in order to improve education leadership. Beyond the theoretical framework of school management and administration, practical guidelines are described, which are applicable according to each leadership style and organization's model. Hence, this study presents effective leadership-based skills, which aim to address the most common challenges facing daily the educational leadership, such as prioritizing, managing time, decision-making, strategic planning, problem solving, managing conflict, working with difficult people, monitoring and delegating, managing stress, managing staff, applying quality control and conducting effective meetings. Based on the above, some valuable guidelines are shared, on how effective leadership might be attainable.

**Nada Turnšek**

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### **Between the Right to Choose and Children's Participation in Slovenian Kindergartens**

With the new paradigm of sociology of childhood (Prout and James, 2006) the traditional notion of childhood as a developmental phenomenon was replaced by the recognition that childhood is an integral part of society and culture rather than its "predecessor", and that children should be regarded as social actors rather than "human becomings" (Uprechard, 2008). As emphasized by Kirby, Lanyon, Cronin and Sinclair (2003), childhood is not a state of immaturity, incompetence and inability to understand the world, but rather children should be seen as significant contributors to society and culture. The concept of "the competent child" (Malaguzzi, 1993; Rinaldi, 2006), and the related concept of children's participation raises theoretical, professional, as well as practical dilemmas. The paper discusses the results of several quantitative studies (involving 810 respondents) as well as qualitative research carried out in the period from 2006 to 2013 (Turnšek, 2007, 2008, 2009) examining Slovenian preschool teachers' attitudes toward the child's participation as well as their practices. Analyses of qualitative data (categorization) were carried out, as well as descriptive statistical analysis and cluster analysis – Ward's method. Research suggests the following conclusions: children's participation is closely linked to the level of decision-making provided to their educators within pre-schools; there is a significant gap between the teachers' and children's perception on the level and content of participation provided to the children; for most educators the meaning of child participation is confined to the child's right to choose among the alternatives provided by the adults/educators. There is a clear division between the group of educators who support the traditional notion of childhood and those who support the concept of a competent child based on the belief that children also create their own choices and alternatives. Factors related to the differences in the educators' attitudes are also presented.

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&  
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### **Education to Vocation: Considerations for Curriculum, Outcomes and Practices Leading to Greater Employability for Undergraduate Students**

Increased responsibilities on business educators in higher education include employment preparation and intentional, developmental mentoring of marketable skills for students. These near-obligations instituted by employability factors, legislation, and the need for young graduates to quickly find jobs, are not to be taken lightly (Guskin & Marcy, 2002, Mourshed, Farrell, & Barton, n.d.). With the additional responsibilities\_\_of regional and professional accreditation, in conjunction with university priorities, finding the time and resources necessary to add these additional practices into business education programs is a challenge. Various factors are impacting educators' ability to support these increasing demands: support resources, compensation, adjustments to the current curriculum, outcomes identification and measurement, administrative support, buy in from departmental colleagues, and, time. The current, though evolving format of education in the college classroom includes lecture, assessment and office hours. Conversely, the employment preparation mentoring will require a more intentional focus. Such intentionality will be on real work-world activities, exercises, mentoring interaction to help students attain success in the necessary skill components of specific classes: which are indicative of *vocation* (Mintz, 1978, Nichols & Nichols, 2000). Further, intentional assessment will be scaffolded into each of the courses. The objective of these researchers in the feasibility of assessing this pedagogy is that it will help students:

1. Develop confidence in self-assessment of employability-related skills over the 3-4 year matriculation period;
2. Have evidence of skills that can be discussed during mentoring interactions;
3. Understand the career trajectory of identified strengths and skills in a meaningful way through mentoring interactions; and,
4. Acknowledgement of skills that may not be a match with personal abilities, i.e. weaknesses in specific areas (key in helping students step away from incongruent career choices).

The current conversation, for the purpose of this study, is to investigate the feasibility of altering the traditional classroom paradigm to include components relevant to the educational market demands of mentoring, employment preparation and assessment of successful job attainment. Further, insights and comparison examples from other institutions is sought to provide a collegial environment that is mutually supportive of the project. Such conversations will not only help inform the curricular and assessment processes to be proposed, but also foster needed dialogue with colleagues from multiple institutions. This international discussion with colleagues is hoped to be an enriching and thought building activity for all – and as international demands for employability are apparent, it is timely for all who teach in higher education.

The modality for the investigation is proposed within two specific courses (Principles of Organization and Management, BUSI 210 and Organization and Administrative Behavior, BUSI 448) both of which are required for business majors at a large, private institution. The two courses “bookend” the beginning and end of student’s matriculation and are based on the management curriculum therein. These ‘bookend’ courses will introduce and transition students from integrative to applied experiences.

With the two courses, overlapping in theoretical and conceptual content, the researchers have chosen to comprehensively evaluate the possibility of addressing current employability demands into the courses. Specifically, the choice is to include: a) Experiential learning that is industry based, b) “hands on” experience with the primary functions of managers in the workplace today, c) reflection of the hands-on work experience, d) evaluation of student’s ability to navigate their skill levels and assess future career trajectories based on their self-assessment, e) assessment based on task completion, thoughtful reflection and self-assessment.

The use of these five behaviorally-based items in both classes will serve to:

1. Introduce students to the real life application (work) of the theories and concepts exposed to in the respective textbooks and course materials;
2. Begin early reflection on career trajectories (at the freshman level);
3. Understand the career trajectory of identified strengths and skills in a meaningful way through mentoring interactions; and,
4. Provide opportunity for and value in thoughtful reflection on identifying and awareness of skill, competency and potential for specific managerial functions and tasks;

5. Allow students to literally gain exposure, development and critique of skills;
6. Provide opportunity for both formative and summative assessment;
7. Equip professors with opportunity for meaningful dialogue with students for purposes of: academic advising, career planning, job selection and placement preparation

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### **The Collaborative Experience (PLC) with Tablets: Moving Forward in a Language Classroom**

As educators, one of our main goals is to adapt our teaching methods to that of an ever-changing world of education. This paper will focus on the importance of a professional learning community (PLC) for teachers and how an educational tool, such as tablets, can lead to greater collaboration and cohesion within the PLC and produce a more powerful student learning experience.

The Clarife language centre at the Université Catholique de Lille, France, created a project which encompasses the exploratory educational initiatives within the Horizon 2020 framework. The project, known as Re@languages, involves a community of 48 foreign language teachers of 10 languages who share their experiences, current practices and innovative ideas within the PLC both in a physical and virtual space. In turn, a more productive and collaborative working environment is created which enriches the students' learning experience.

The trend in higher education is moving toward technology-based teaching however, the implementation of this approach often lacks a solid foundation. This paper will discuss how Re@languages is also following this general trend but is overcoming said shortcoming through the establishment of a PLC, appropriate ICT training for teachers and the successful integration of innovative pedagogies which include technology-based teaching such as utilizing tablets (with relevant applications) in the foreign language classroom. In addition, teachers will be able to share and discuss the knowledge that they have learnt both in training and in the classroom within the PLC, where they can scaffold concepts and develop ideas into best practices as a community.

Re@languages encourages teachers to move forward with their ideas in both learning and teaching with the use of technology. In the context of our project, teachers are empowered through training and support allowing them to employ best practices and tools to assess the key

competencies of foreign language learning (reading comprehension, writing, listening and speaking) with a technology-based approach. At its core, the concept of a PLC rests on the premise of improving student learning by improving teaching practice [1]. The Re@langues PLC will continue to develop in both a physical and virtual space where teachers can contribute materials, ideas, case studies, and various other teaching practices as a community. In creating a sustainable model, Re@langues equips its teachers with the knowledge, confidence and support to match the evolving learning styles of our students. As the project advances, Re@langues would like to share its experiences with other disciplines at the university and external institutions.

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## **Towards the Value of Labor within the Context of Teaching Business Ethics in Higher Education**

According to some notable contemporary economists (e. g. M. Weitzman) the crucial issue that contemporary economics is dealing with (since 1929 Big Depression phenomenon occurred) is concept of stagflation.

The notion of stagflation we might simply describe as disparity between labor offer and labor supply at the market place and the question (and status) of the price of the labor now and then, as well.

From the ethical point of view, the concept of labor is connected with some higher purpose than material one: it involves explanation on the question how to live our lives as morally fully engaged subjects in the era designated by capitalistic ethos which - consequentially - undermines true value of labor.

The main issue of this elaboration that will be discussed here is focused on the question of the labor ethics seen from the Keynesian perspective offered by his remarkable General Theory of Employment, Interest and Money (1936). In order to do that, this elaboration will be divided into three parts. In the first part of it I will discuss about philosophy (of business) vs. economic practice. The second part of the given elaboration is focused on the question of the future of capitalism seen from the perspective of USA economic crisis in 2008. And in the final part of my insight into the question of the value of Keynesian economic teaching (towards saving labor) will be dedicate to the reception of Keynesian epistemological impulse in the contemporary economics and its practice.

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## **Reading, Literature, Education: Possible Encounters in the English as a Foreign Language Class**

The paradox is well known: schools have English in their curricula, and those who can afford it go to private courses hoping to obtain a good knowledge of that language. No one seems to discuss the position of English as the closest possible to that of lingua franca. Yet, there can be felt a pervasive idea according to which the quality of knowledge offered in schools, regarding English as a Foreign Language — EFL —, is below acceptable standards, so it is labeled as being of secondary importance. This situation also adds to the rejection of the foreigner, the different, narrowing in our students the possibilities of observing new views of the world and of the other, thus isolating them in their worlds, decreasing or even closing their links with other possibilities and ways. Moreover, it is largely agreed that reading is a fundamental competence which, if not properly addressed, more than often leads to academic failure. Another consequence of not being able to read is that, in such case, one has to accept other people's readings. In this context, it was devised a Literary Reading Class, which consisted basically of reading and discussing fiction texts in English as part of the syllabus of an EFL program. This paper summarizes a research which aimed to experiment literary reading classes as a possibility of optimizing deeper readings, far beyond the mere decoding of signs, to investigate how they would add pedagogical value to that class, fostering positive change and construction of new knowledge. The work encompasses a theoretical section, with a revision of the literature on EFL teaching and learning, theories on reading, literature and manners of reading which allow and encourage the subject to construct meaning to the text. Then it brings samples of a six-month action-research experiment, of qualitative approach, conducted in an EFL class in a Brazilian town in the state of Rio de Janeiro. The corpus of the work were diaries written by the teacher and by the students after every class, plus a video-recorded conversation with the whole group, at the end of the project. It ends up defining and proposing the Literary Reading Class as a democratic

space of discussion and reflection which can add value to that moment in the teaching-learning process, and could shorten the distance, while improving quality, between what is offered in state and in private educational institutions.

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### **Talk about Chemistry: A Voluntary and Effective Integration among the Players of Teaching Chemistry**

This is the description of our proposal of integrating action among undergraduate with high school and college teachers of Chemistry. It is an annual and small meeting of voluntary participation to talk and listen on Chemistry, from current and stimulating topics. It is called "Talk about Chemistry" and the dynamics involve short speeches, presented in accessible and open way to receive and incorporate the audience's suggestions. In this process, every person interacts and does not become a passive listener. They express their opinions, share their experiences and act as educators for each other. It is a collective construction of a discussion about scientific and technological updates, scientific and educational Chemistry knowledge, teaching practice and professional qualification, with undergraduates, new and senior teachers sharing educational activities. It is possible to perform an activity simultaneously applied for initial training and continuing education of Chemistry teachers. We developed this proposal as a part of our project on PIBID program, which intends to introduce undergraduates to the Chemistry teacher's universe, including the participation of a local teacher as supervisor and a faculty member as coordinator. On May 15, 2014, the third edition of "Talk about chemistry" involved 40 participants, which were received at the Institute of Chemistry of University of Campinas, supported by the local staff of the State's Education Office. Knowing that there are near 200 Chemistry teachers in our city and 50 undergraduates (Teacher Degree in Chemistry) at Institute of Chemistry, the audience can be considered satisfactory. The spontaneous expression during the meeting and the written reports were all positive, highlighting the relevance of an opportunity to share problems because it makes easier to enhance the solutions. The organization of these meetings is simple and they result positively regarding to the education of Chemistry teachers.

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## **How Do I Categorize My World? Teachers' and Students' Reminiscences from Inclusive Classes**

Concepts are the basic building blocks for thinking and their formation is believed to be the basic higher-order thinking skill on which all the other analytic and synthetic skills depend for the development of distinctions that result in categories. To explore the process in inclusive classrooms, twenty three 5<sup>th</sup> grade students were engaged in a twelve-week action research study. Data was collected through 1) teachers' reflective journals 2) student pre-and post-surveys, and 3) observational notes. The study found the model extremely efficient in attaining declarative, procedural and conditional knowledge in inclusive classrooms characterized by diversity.

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&

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### **Preservice Teachers' Cross-Cultural Competence in Teaching about Immigrants and Refugees**

Educators in a globalized world need to appreciate and understand the challenges of war, economics, political strife, and terrorism faced by children and families. The purposes of the present research are two-fold. The first purpose is to develop the cross-cultural competence of preservice teachers by exposing them to books about the lives and experiences of immigrant and refugee children and families. The second purpose is to examine the ability of preservice teachers to develop lessons designed to challenge the critical thinking of struggling readers about the lives and experiences of immigrant and refugee children and families. The ultimate objective of the research is to better prepare preservice teachers for the diversity of student teachers in their future classrooms.

This qualitative study investigates 37 elementary preservice teachers' attitudes about immigrants and refugees before and after reading books about refugees and also evaluates preservice teachers' ability to plan reading instruction that focuses on immigrants and refugees for struggling elementary students attending a university reading clinic.. The following research questions were used to guide the research 1) Are there significant pre-post differences in the attitudes of preservice teachers toward immigrants/refugees after using non-fiction and fiction-books about immigrants and refugees?; and 2) Are there significant pre-post differences in the attitudes of preservice teachers after exposure to multicultural books about immigrants/ refugees? and 3) Can preservice teachers use higher level questioning to engage elementary struggling readers in questioning fiction and informational texts about the lives and experiences of immigrants/refugees?

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&  
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### **Consciously Cognizing and Unconsciously Sharing: Undergraduates Process Fake Health Information in the Microblog**

Fake health information (FHI) disguise to disseminate health knowledge as the goal, but they go against the scientific rules and logic. FHI overload in social media has been a serious threat to public health, and the way that new media users receive and process the FHI has become an important issue worthy of attention. The paper aims to investigate how undergraduates in the cognitive level and behavior level receive and process FHI in the micro-blog. We use the questionnaire and focus group to investigate undergraduates in Wuhan city. The study analyzes the factors that influence undergraduates to receive and process FHI. The study takes FHI about losing weight, health maintenance (Yangsheng) and food security as examples, two aspects including individual factors and information content will be taken into account. Involvement, risk surveillance, self-efficacy and information source are designed as the independent variables and the information processing strategies ( heuristic and systematic processing) .Information processing behavior (Share, forwarding, comment, being a follower) are chosen as the dependent variables. The study found that the involvement, self-efficacy and information source may significantly influence FHI processing strategies and the impact on the system thinking is more power than heuristic thinking, but these factors cannot predict the processing behavior. Then we select 30 volunteers from the respondents and divide them into three groups to explore students' motivation, strategies and paths of FHI receiving and processing in micro-blog. These findings help us observe more subtly how undergraduates process FHI in micro-blog, So as to provide ideas for governing FHI malignant spread in social media.

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### **We're on the Road to Where?: Teaching Ethics in the Age of Digital Communication**

Ethics is a long debated subject in philosophy with no common understanding of what it is. As a subcategory of ethics, communication ethics became one of the most complex areas of study in the field. New media technologies and digital communication tools and ever expanding applications blurred the lines between ethical conduct and misconduct. The redefined categories of news making (such as alternative journalist, citizen journalist, etc.) along with the technological advancements made every single person with a smart phone become a journalist, cameraperson, editor, and photographer, shortly a 'media' person. The use of such technology enabled the silenced groups to speak on their own behalf, yet the downside of this new era seems as the narrowed space for the ethical discussion. From plagiarism on term papers to use of copyrighted material, from the revelation of private sphere matters to online hate speech and gray propaganda the load on communication ethicists became heavier. This paper aims to discuss the major issues on teaching ethics to the communication students in the age of digital communication.

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&  
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## **An Ideal Postgraduate Program from the Perspective of Postgraduate Music Students**

This study aims to identify views of the master's and doctoral-level students in Music Education about the ideal postgraduate program.

The sample of the study consists of 50 students enrolled in master's and doctorate programs at Gazi University Educational Sciences Institute Music Teaching Department during the 2010-2015 academic years. Present study is qualitative in nature and designed as a descriptive study aimed at determining the situation.

For collecting data, a questionnaire consisting of open-ended and closed-ended questions developed by researchers was used. The survey data were put in tables with the "f" and "%" values and the data were interpreted. The open-ended questions in the survey were analyzed with content analysis.

Study findings include the students' demographic data, their aims of attending postgraduate education and their views regarding an ideal postgraduate program. It was seen that the students often study at postgraduate level to "Be an Academician" and "Have an Academic Career", "Personal development" and "Specialize in instrument training" under such themes as "Career", "Development" and "Specialize". As a response to the question "What do you think an ideal postgraduate program should be like?", the participants said "It should contain academic conversations one day a week, be realistic, motivating about doing research, appreciating instrument lessons, and enriched with other disciplines". Regarding courses in music or other disciplines that should be in place in an ideal curriculum, they replied as primarily "instrument, musical instrument pedagogy, chamber music, correpetition, choir training, stage, music history, research methods, psychology, sociology, and drama".

In the light of the study findings, some recommendations were made to improve the postgraduate program and to meet the needs of the students enrolled in the program.

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## **US Consumer Attitudes and Perceptions about mHealth Privacy and Security**

This study examined consumers' attitudes and perceptions regarding mobile health (mHealth) technology use in health care. Twenty-four focus groups with 256 participants were conducted in 5 geographically diverse locations. Participants were also diverse in age, education, race/ethnicity, gender, and rural versus urban settings. Several key themes emerged from the focus groups. Findings suggest that consumer attitudes regarding mHealth privacy/security are highly contextualized, with concerns depending on the type of information being communicated, where and when the information is being accessed, who is accessing or seeing the information, and for what reason. Consumer frequently considered the trade-offs between the privacy/security of using mHealth technologies and their potential benefits. Having control over mHealth privacy/security features and trust with providers were important issues for consumers. Overall, this study found significant diversity in attitudes regarding mHealth privacy/security both within and between traditional demographic groups. Thus, to address consumer's concerns regarding mHealth privacy and security, a one-size-fits-all approach may not be adequate.

Healthcare providers and technology developers should consider tailoring mobile health technology according to how various types of information is communicated in the healthcare setting, as well as, according to the comfort, skills, and concerns individuals have with mobile health technology.

The Department of Health and Human Services (HHS), Office of the National Coordinator for Health Information Technology (ONC) provided funds for the data collection.

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&

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## **Can Education Resolve Nursing Shortage in China?**

**Aim:** By discussing the lesson learned from nursing leaving nursing practice in China, the paper aims to understand how the content and context of nursing education and recruitment impact on Chinese nurses' career decision making.

**Background:** In efforts to resolve the nursing shortage, the Chinese government mainly emphasise on expanding nursing education and controlling nursing staffing ratio. There is a lack of feasible strategies to retain and attract nurses back to nursing in China.

**Method:** The in-depth interviews with the 19 nurses who have left nursing practice were theoretically sampled from one provincial capital city. The qualitative study draws on a grounded theory approach.

**Findings:** "Mismatched Expectations: Individual vs. Organization" emerged as the core category. It has illustrated how the mismatched individual and organizational expectations of nursing create through nurses educational and employment processes within the Chinese health care system, and effect Chinese nurses' career decision making.

**Conclusion:** The study found nursing shortage could not be only resolved by increasing number of nursing students and the levels of education in China. When the individual and organizational expectation of nursing is highly mismatched, there may be a risk that highly educated nurses simply leave nursing practice or work abroad.

**Implication:** To maintain a stable nursing workforce and avoid a more serious risk of nursing shortages, the nursing educators should not only lay emphasis on academic aspects of nursing, but also need to reconsider the students' recruitment strategies and redesign the nursing curriculum, in order to facilitate students developing realistic expectations of nursing and to adapt themselves into current health care environment without losing vision of future.

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&

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## **Possible Didactic Applications of Creative Thinking Theories within a Simplex Didactics Perspective**

The contemporary proteiform reality of the education system characterized by the complexity and dynamism of its contexts, as a result of the variety and the diversity of the learners' needs, an interesting problem-solving strategy may be found in applying the logic of creative thinking in educational experiences when building teachers' competencies. The professional ability of applying detour strategies in teaching, or, in other words, the ability to identify flexible strategies and alternatives to those which are frequently consolidated and crystallized in practice, responds to the inherent need in teaching to search different ways of didactic transpositions that offer the teacher a plurality of solutions to ensure a better control of the system. The conditions underpinning the ability to find possible detours to be used in teaching lie in the capability to face the complexity of challenging situations by drawing on a form of cognitive flexibility that has been subject to numerous studies and research which provide worthy evidence on the educational implications of creative thinking, divergent thinking and lateral thinking.

On the basis of this, a research was conducted during an in-service teacher training course with the aim of understanding the teachers' predisposition of using lateral thinking, fundamental and crucial for inclusive education.

This was analysed, using de Bono's six hats tool as a metaphor to assess the teachers' tendency to "wear the green hat" that indicates creative thinking, understood as the set of attitudes, expressions and techniques that can cut across the patterns of a self-organizing system asymmetrically to generate new concepts and perceptions (de Bono, 1985).

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&

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### **Teacher's Emotional Intelligence, Emotional Experiences and Professional Development**

Teaching is often regarded as a highly emotionally-demanding career. Existing evidence suggests teachers are often at high risk of burnout, leaving the job, and carrying a burden that often takes its toll on their mental and physical health. Therefore, there is added value in understanding teachers' emotional experiences throughout their career. The present study examined the associations between teachers' self-perceived professional development stage and emotional intelligence (EI), alongside demographic information and their emotional reactions at work (summarized as positive and negative emotions) among 162 Israeli teachers. Our results suggest that EI associated positively with the amount of positive experiences and negatively with negative experiences at work. A marginal association between self-reported developmental stage and teachers' emotional experiences at work was also found. These results are discussed in light of existing work on teachers' emotional experiences and the literature on EI in education.