

# 2<sup>ND</sup> WORLD CONFERENCE ON NEW TRENDS IN SCIENCE EDUCATION CRACOW/ POLAND, 2-5 JULY 2013 'Science education in the face of social change'



**Tuesday, 02.07.2013 (Pedagogical University of Cracow,  
Podchorążych 2 - Aula)**

**8<sup>15</sup> – 9<sup>45</sup> Registration**

**10<sup>00</sup> – 10<sup>45</sup> Opening ceremony**

**10<sup>45</sup> – 12<sup>20</sup> Plenary session 1, chairman: Prof. Ibrahim Atalay, member of Honorary Committee**

10<sup>45</sup> – 11<sup>15</sup> Keynote speaker 1: **Prof. André GIORDAN** "Scientific Exhibition and Museum in the Face of the Social Change"

11<sup>15</sup> – 12<sup>00</sup> Keynote speaker 2: **Prof. Sibel ERDURAN** "Nature of Science and Science Education: Missing Connections and Potential Interdisciplinary Links"

12<sup>00</sup> – 12<sup>20</sup> Discussion

**12<sup>20</sup> – 13<sup>00</sup> Coffee break & poster session 1 (in front of Aula)**

**13<sup>00</sup> – 14<sup>00</sup> Plenary session 2, chairman: Prof. Ali Gunay Balim, member of Scientific Committee**

13<sup>00</sup> - 13<sup>30</sup> Keynote speaker 3: **Prof. Salih ÇEPNİ** "The Evaluation of the effectiveness of an Alternative Assessment in-Service Course Program and the Web-Based Approach Using Alternative Assessment Forms Effectively Relating to the Science and Technology Teachers, Students and Parents"

13<sup>30</sup> – 14<sup>00</sup> Plenary presentation

**14<sup>00</sup> - 15<sup>30</sup> Lunch**

**15<sup>45</sup> – 18<sup>00</sup> Topic session 1: "Science & Society" (Aula)**

**15<sup>45</sup> - 17<sup>15</sup> Group A, chairwoman: Prof. Barbara Kędzierska, member of Scientific Committee**

1. **Danuta Cichy (Poland)** "Universal dimension of the European science education"
2. **Lamjed Messoussi (Tunisia)** „Learning, complexity and conceptions: new tools for a new society"
3. **Kate Scantlebury (USA)** "Promoting girls' voices: Using cogens in science"
4. **Sinan Eslek, Mehmet Şahin, Muhammet Uşak, Ufuk Dilek, Bekir Güler (Turkey)** "Epistemological beliefs of biology students towards biology learning"
5. **Richard-Emmanuel Eastes (France)** Serious games and discussion games in a science mediation perspective: the example of a collaborative platform initially developed for the industry as a tool to handle sociotechnical controversies

**Discussion**

**17<sup>15</sup> - 18<sup>45</sup> Group B, chairman: Prof. Halil Aydın, member of Scientific Committee**

1. **Martyna Studzińska, Barbara Ostrowska, Urszula Poziomek (Poland)** "Where do students get scientific knowledge from?"
2. **Ibrahim Atalay (Turkey)** "Revealing temperature inversion through environmental education"
3. **Katarzyna Nieszporek & Małgorzata Grodzińska – Jurczak (Poland)** "Municipal Waste Management And Quality Of Life - Sustainable Development Of Local Communities In Małopolska And Podkarpacie"
4. **Tulenková Mária, Šutiaková Irena, Kovalkovičová Natália (Slovakia)** "Innovations In The Field Of Study Biology And Ecology Focused On The Theme Of Biomonitoring And Biomarkers"
5. **Ali Günay Balim, Suat Turkoguz (Turkey)** "The Salt (science-arts-language-technology) Comenius project: Primary School Students' Perceptions about Salts"

**Discussion**

**19.00**

**Opening meeting**

15 minutes for each presentation

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Wednesday, 03.07.2013

## 8<sup>45</sup> – 12<sup>00</sup> Topic session 2: "Students' knowledge, skills & attitudes" (Pedagogical University of Cracow, ul. Chmiela, Aula A1)

*chairwoman: Prof. Katarzyna Potyrala, member of Scientific Committee*

1. **Lothar Staeck (Germany)** "Science learning and teaching"
2. **Richard-Emmanuel Eastes (France)** Understanding learning processes: new theoretical developments at the interface of conceptual change theories, allosteric learning model and cognitive psychology
3. **Iliya Emilov (Bulgaria)** "Constructivist learning environment in science classes at Polish, Turkish and Bulgarian high schools"
4. **Ali Günay Balım, Mehmet Erdoğan, Osman Nafiz Kaya, Cengiz Tüysüz, Yasin Ünsal (Turkey)** "SWOT analysis of Turkish 4<sup>th</sup> to 8<sup>th</sup> grade science and technology course curriculum"
5. **Erdi Altun, Tuğçe Çakır, Şenol Alpat, Yaşar, Kemal Yıldız (Turkey)** "Determination of Students' Conceptual Level of Understanding about Elimination and Substitution Reactions in University Organic Chemistry Lesson"
6. **Erdi Altun, Halil Aydın (Turkey)** "Understanding protein synthesis: eliciting students' conceptualization"
7. **Simge Karakas, Mustafa Serdar Köksal, Canan Tunç, Şahin (Turkey)** "Understandings of advanced high school students on nature of science"
8. **Esra Acikgul Firat, Serdar Köksal, Milan Kubiato (Turkey)** "Understanding knowledge structures of prospective biology teachers on "organic" concept"
9. **Ufuk Dilek, Mehmet Şahin, Bekir Güler, Sinan Eslek (Turkey)** "An investigation of university students' anxiety in physics courses"
10. **Beata Gawrońska, Ligia Tuszyńska (Poland)** „The level of competencies of middle school graduates in field of the health education implemented at biology lessons"
11. **Michał Zarzycki, Ligia Tuszyńska (Poland)** „Cell lines as a model for immune cells in research and didactics"
12. **Ali Günay Balım, Ümmühan Ormancı and Erkan Özcan (Turkey)** "Culture Analysis Towards Secondary School Science Course: An Ethnographic Study"

12<sup>00</sup> – 12<sup>40</sup> Coffee break & poster session 2 (in front of Aula A1)

*15 minutes for each presentation with short discussion*

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12<sup>45</sup> – 14<sup>45</sup> **Topic session 3 & 4** (Pedagogical University of Cracow, ul. Chmiela)

### **Topic session 3: "Media & Mediation" (room 110 N)**

*chairman: Prof. Daniel Raichvarg, member of Scientific Committee*

1. **Katerina Diminikou (Greece)** "The new educational environment mediated by new technologies and social media: a three level analysis (in – class environment, micro- environment, macro – environment)"
1. **Katarzyna Potyrała & Beata Jancarz-Łanczkowska (Poland)** "Science learning *in the cloud*"
2. **Teoman Ismail Kesercioğlu & Gizem Saygılı (Turkey)** "Prospective Teachers' Tendencies To Utilize From The Facilities Of Contemporary Educational Technology"
3. **Tuncay Canbulat, Hadiye Küçükkaragöz (Turkey)** "Prospective of primary teachers' opinion related to contribution of educational short movies which they shoot to period of teaching and learning"
4. **Anna Ludwik (Poland)** "Museum, place of public dialogue – innovation or tradition?"
5. **A. Menegaz, M. Sanmartino, C. Mordegli, M. Zucchi (Argentina)** „Chagas disease as an excuse: an unconventional experience of teaching / learning with initial level teachers of La Plata (Argentina)"
6. **Richard-Emmanuel Eastes (France)** "Clowns as science mediators, motivators and learning enhancers"
7. **Merve Cin, Suat Türkoguz (Turkey)** "Effects of argumentation based concept cartoon activities on students' scientific process skills"

Discussion

### **Topic session 4: "Strategies of science education" (room 111 N)**

*chairwoman: Prof. Małgorzata Grodzinska-Jurczak, member of Scientific Committee*

1. **Francine Pellaud (Switzerland)** "Which education methods and strategies should be applied to children and adults regarding "Sustainable Development"?"
2. **Georg Pestal (Austria)** "Cooperation in Science Education between Austria and Taiwan using the Science Garage, an Approach for Self-Motivated Science Learning"
3. **Merve Kocagül, Mehmet Şahin (Turkey)** „Investigating preservice science teachers' beliefs about inquiry based teaching and learning"
4. **Adamina Korwin-Szymanowska, Ligia Tuszyńska (Poland)** "Dimensions of health in Polish students' opinions"
5. **Olivier Meunier (France)** "Issues of educational support in primary school and secondary education in disadvantaged suburbs in France"
6. **Agata Aszklar, Ligia Tuszyńska (Poland)** „The Level Of Skills Of The Middle School Students In Field Of The Modeling Biological Experiments In View Of The General Education Core Curriculum For Biology"
7. **Salih ÇEPNİ & Feride Ercan (Turkey)** "Scientific Problem Solving Skills of Gifted Students"

Discussion

15<sup>00</sup> – 16<sup>00</sup> Lunch

*15 minutes for each presentation*

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Wednesday, 03.07.2013

16<sup>45</sup> – 19<sup>00</sup> Workshops for Teachers or Session in Museum  
1/ Workshops for Teachers (Polish translation) (110N, 111N Podchorążych 2)

prepared by Dr Richard-Emmanuel Eastes: <http://www.richard-emmanuel.eastes.eu/>

and Dr Francine Pellaud: <http://www.atomes-crochus.org/article51.html>



Les Atomes Crochus

and Polish Session/ sesja w języku polskim (318N, Podchorążych 2):

Okręgowa Komisja Egzaminacyjna (matura 2013)

Dr Marek Kaczmarzyk ('O statystycznej istocie wychowania')

2/ Session in Museum

prepared by Dr Alina Krzeminska and students of Pedagogical University of Cracow



Institute of Systematics and Evolution of Animals  
Polish Academy of Sciences

## VOICES FROM THE PAST

TEXT FOR THE PLAYER OF THE GAME FOR THE WORKSHOP SESSION

### Voices from the past

Move thousands of years ago.

**Become a searcher**, seek for clues, **discover the truth from the past**.

Become the **traveler in time**.

**Listen closely**. The mammoths and men of the past are telling their stories and revealing their secrets.

Find the key to the riddles.

Everything depends on your decision.

**The world is not so obvious as it may look like...**

Can you hear them? These are the voices from the past.

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Thursday, 04.07.2013

9<sup>00</sup> – 16<sup>00</sup> ONE DAY CONFERENCE TRIP (& Lunch)



19<sup>00</sup> GALA DINNER with a numerous surprises...

Special performance prepared by Prof. Daniel Raichvarg (France)



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Friday, 05.07.2013

9<sup>30</sup> – 11<sup>45</sup> Plenary session 3: "Science teacher training"

Chairman: Prof. Dr. Teoman Kesercioğlu, member of Scientific Committee

1. **Hatice Güngör Seyhan, Gülseda Eyceyurt Türk (Turkey)** "The assessment of beliefs and views of the nature of science between pre-service science teachers in the problem solving laboratory application"
2. **Iwona Maciejowska, Małgorzata Krzeczowska, ESTABLISH Consortium (Poland)** "Engaging students in the learning of science as a part of pre-service teacher training"
3. **Zeliha Yayla, Sevinç Kaçar, Suat Türkoguz (Turkey)** "Investigating of preservice teachers' skills about editing scientific journal for students in secondary school"
4. **Iiona Horychová, Milada Švecová (Czech Republic)** „ICT Diffusion In Science Subjects At Basic And Secondary Schools“
5. **Bekir Güler, Mehmet Şahin, Sinan Eslek, Ufuk Dilek, Merve Kocagül (Turkey)** "A study to investigate preservice teachers' affective states in physics courses"
6. **Natalia Demeshkant, Liudmyla Dankevych (Ukraine)** "The system of professional eco-pedagogical teacher training at natural and agricultural universities in Poland"
7. **Gülten Şendur, Merve Polat, Coşkun Kazancı (Turkey)** "A study toward teaching the history of chemistry for prospective chemistry teachers"
8. **Milada Švecová, Iiona Horychová (Czech Republic)** „Interdisciplinary relations shown on the example of the interconnection of ecological aspects of teaching biology and mathematics“
9. **Ali Günay Balım, İrem Kizilaslan & Erkan Özcan (Turkey)** "Exploring Turkish Pre-Service Science Teachers' Attitudes Toward The English Language Course: A Mixed Method Study"

11<sup>45</sup> – 12<sup>05</sup> Coffee break

12<sup>05</sup> - 12<sup>25</sup> Results of the poster competition

12<sup>25</sup> – 13<sup>00</sup> Conclusion & Closing ceremony

Dear Colleagues,

We are happy to inform you that we are preparing *poster prize competition*. During the conference we will ask you to vote for the poster you liked most. The winner will be announced at the end of the conference.

We eagerly look forward to meeting with you and to be able to admire your posters.

Best regards,

Organizing Committee

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## Poster session 1 & 2 (chairwoman: Dr Alina Krzemińska)

### Poster session 1 (02.07. 12<sup>20</sup> – 13<sup>00</sup>):

1. **Belevtsova Elizaveta, Ryzhova Oxana, Kuz'menko Nikolay (Russia)** "Mathematical content of the entrance examinations in chemistry, modern trends and experience of MSU"
2. **Katarzyna Luzar, Iwona Maciejowska (Poland)** "Social activity of students in the second decade of the 21<sup>th</sup> century"
3. **Bożena Futoma-Koloch, M. Książczyk, M. Maciąg, G. Bugla-Płoskońska (Poland)** „A new, emerging problem: the risk of Salmonella resistance phenotype appearing followed the exposure to disinfectants open for general use"
4. **Anna Kędziora, K. Gorzelańczyk, G. Bugla-Płoskońska (Poland)** „Positive and negative aspects of silver nanoparticles using"
5. **Mauritz Gregório de Vries, Celeste Ferreira, Aginaldo Arroio (Brazil)** „Conceptions of pre-service chemistry education on the use of visualizations in teaching in two countries: Brazil and Portugal"
6. **Laura Snela, Sylwia Koziołek (Poland)** "European Paleolithic and Neolithic art"
7. **Katarzyna Socha (Poland)** "The role of the information technology in creating the scope of space experimental metabolic"
8. **Krzemińska Alina (Poland)** "Another brick in the wall"
9. **Monika Łazarska (Poland)** "Teaching by plays and experiences"
10. **Sylwia Pospuła (Poland)** "Teaching by experiences and plays"
11. **Urszula Poziomek, Barbara Ostrowska, Martyna Studzińska (Poland)** "Scientific non-formal education, the way of disseminating scientific education"

### Poster session 2 (03.07. 12<sup>00</sup> – 12<sup>40</sup>):

1. **Jan Zawitkowski, Ligia Tuszyńska (Poland)** "Amphibians as an important component of biological diversity in nature education"
2. **Silvina Cordero (Argentina)** "Innovation and collaborative work in science education"
3. **Jacek Murczek, Iwona Maciejowska (Poland)** "IBSE – suggestions to help teacher to get started"
4. **Silvina Cordero (Argentina)** "University teachers training for research and educational change"
5. **Malgorzata Krzeczowska, Patryk Własiuk, Marcin Sawicki (Poland)** "Montessori method in Polish education - a few words..."
6. **Karolina Czerwec** „Biology students' attitudes to intersexuality and transsexuality issues"
7. **Marcin Purchalka (Poland)** "The level of knowledge and awareness of parents about the prevention of oral disease"
8. **Izabella Szot (Poland)** "Developing students critical thinking during biology lessons in gymnasium school using IT"
9. **Alicja Walosik & Elżbieta Rożej-Pabijan (Poland)** "Education for sustainable development in the programmes of study for natural sciences"
10. **Emmanuella Di Scala – Fouchereau (France)** "Study of explicit instruction and structured inquiry methods on knowledge and conception in science learning"
11. **Malgorzata Musialik, Enzo B. Arévalo-Garcia, Marcin M. Chrzanowski, Irmina Buczek, Barbara Ostrowska (Poland)** „Implementing POGIL approach in science education. A low-cost alternative to the chemical experiments recommended in the Polish core curriculum at ISCED 2 level"

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