



International Conference
IMPROVEMENTS IN SUBJECT DIDACTICS
AND EDUCATION OF TEACHERS

Међународна конференција
УНАПРЕЂИВАЊЕ ПРЕДМЕТНИХ ДИДАКТИКА
И ОБРАЗОВАЊЕ НАСТАВНИКА

October 24-25, 2013, Belgrade, Serbia

Organizer:

Committee for Education of the Presidency Serbian Academy of Sciences and Arts

Co-organizer:

Institute for the Contemporary History, Trg Nikole Pašića 11, Belgrade

Conference boards:

Program Board:

Milosav Marjanović [chair], Predrag Janičić, Petar Kenderov, Stevan Jokić, Miljenko Perić, Julijana Vučo and Jelena Filipović

Organizing Board:

Rade Živaljević, Stevan Jokić [chair], Julijana Vučo, Dejan Masliković and Milena Ivanović

Sponsors:

Ministry of Education, Science and Technological Development of the Republic of Serbia, Institut Francais de Serbie /Belgrade, Postal Savings Bank /Belgrade

National Theatre /Belgrade, Tourist Organization of Belgrade

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Academy House
Kneza Mihaila 35 (City Centre)

Host of the Conference: Serbian Academy of Sciences and Arts
Venue of the Conference: Academy House

Wednesday, October 23, 2013 (National Theatre, Trg Republike 1)

19:00 *Opera Madam Butterfly*

OPENING OF THE CONFERENCE AND PLENARY LECTURES

Thursday, October 24, 2013, (Academy's Main Hall, 2nd floor)

08:00 Registration (Academy's Entrance Hall, 2nd floor)

08:30 – 08:45 Video about Academy

08:45 – 09:00 Addresses:

Nikola Hajdin,

President of the Serbian Academy of Sciences and Arts

Representative of the Ministry of Education, Science and
Technological Development of the Republic of Serbia

09:00 – 09:45 *Ferdinando Arzarello,*

Experimental Mathematics: A Cultural and Cognitive Challenge

09:45 – 10:30 *Pierre Léna,*

Inquiry Based Science Education: Today's Challenges

10:30 – 11:15 *Elena Pasquinelli,*

Cognitive Science and Education

11:30 – 13:30 Welcome Cocktail Reception, the Academy's Club
(mezzanine floor, between the ground and the 1st floor)

1. SECTION – MATHEMATICS AND INFORMATICS,

Lecture Room 2, 1st floor

Thursday, October 24, afternoon session

Presiding: Milosav Marjanović and Zoran Kadelburg

- 15:00 – 15:30 *Petar Kenderov,*
The Role of European Project LEMATH and MASCIL for
Improving Mathematics Education in Bulgarian Schools
- 15:30 – 16:00 *Danimir Mandić, Drago Branković,*
Integrating New Technologies in Curricula and Teachers Compe-
tences
- 16:00 – 16:15 *Aleksandar Lipkovski,*
Some Doubts About Early Introduction of Sets in Mathematics
Education
- 16:15 - 16:30 *Aleksandra Mandić, Marijana Zeljić,*
Schematic Learning of Introductory Concepts of Arithmetic
- 16:30 - 16:45 *Slagjana Jakimovik,*
In Pursuit of Worthy Mathematics Education for Elementary
School Teachers
- 18:00 - 20:00 Visit to the Belgrade Book Fair

Friday, October 25, morning session

Presiding: Miodrag Mateljević and Aleksandar Lipkovski

- 09:00 – 09:30 *Milosav M. Marjanović,*
Sets in School Mathematics
- 09:30 – 10:00 *Rade T. Živaljević,*
Curricula that Build Themselves and Special Programs for Gifted Students
- 10:00 – 10:15 *Jordan B. Tabov, Iordanka G. Gortcheva,*
Humanitarian Accents in Teaching Mathematics to Prospective Primary School Teachers
- 10:15 – 10:30 *Miodrag Mateljević, Marek Svetlik,*
A Contribution to the Development of Functional Thinking Related to Convexity, One-dimensional Motion and Inertial Frames
- 10:30 – 11:00 Coffee Break
- 11:00 – 11:15 *Daniel A. Romano,*
A Model of Mathematics Teacher Education for the 21st Century, for High Grades of Elementary School (6th to 9th grade) in the Republic of Srpska
- 11:15 – 11:30 *Siniša Vrećica,*
On Impossible Tilings
- 11:30 – 11:45 *Zoran Kadelburg,*
Limits of Composite Functions
- 11:45 – 12:00 *Vesna Veličković,*
Software for Rasterization of Lines in Teaching of Computer Graphics
- 12:00 Bojan Lazic
Authentic Assessment Math Tasks in Classroom

Friday, October 25, afternoon session

- 15:00 – 18:00 Round Table Discussion, Lecture Room 2, 1st floor

SCIENCE AND THE HUMANITIES JOINT PROGRAMME

Thursday, October 24, afternoon session (joint program for sections 2 and 3)

- 12:45 – 15:00 Workshops and a visit to Primary school “Drinka Pavlović”, Belgrade (for a group of 10 – 15 participants from both sections).
Uroš Momčilović, the headmaster of the school (reception for the participants).
Bojana Tabović, the second class teacher, will supervise a sequence from the program “Ruka u testu” (for children of age 8).
Jelena Hadžić-Djordjević, teacher of the seventh class (children of age 14), will demonstrate a sequence from physics and chemistry.
- 13:00 – 15:00 Visit to the Faculty of Education, University of Belgrade
Mile Savić, the Dean of the Faculty, will address a group of participants
- 13:15 - 15:00 A workshop for a group of 80-100 students (and interested participants) with the application of ISBE method and the use of experimental materials developed by Belgrade TC1 – center VINČA (offered to the Faculty of Education, Belgrade in the framework of the projects RUKA U TESTU and FIBONACCI).
The program is realized by:
Sanja Blagdanić, Faculty of Education, Belgrade, *Marija Bošnjak* Faculty of Education, Sombor and *Ljiljana Jokić*, AKM Edukacija-Belgrade...
Dragana Miličić, Faculty of Biology, University Belgrade and *Marina Drndarski*, Primary School “Drinka Pavlović”, Belgrade “*Spirals and Rabits*”, an interdisciplinary workshop designed for teachers in primary schools
- 15:15 – 17:00 **Round Table Discussion “SCIENCE AND LANGUAGE“**
Lecture Room 3, 1st floor
Moderator: *Julijana Vučo*
Participants: representatives of Faculty of Philology, Belgrade, Faculty of Philosophy, Belgrade, Faculty of Philosophy, Novi Sad, Faculty of Education, Sombor, Faculty of Education, Belgrade, Elementary School “Drinka Pavlović” and others
- 18:00 Visit to the Belgrade Book Fair

2. SECTION – SCIENCE, Lecture Room 3, 1st floor

Friday, October 25

Presiding: Dušanka Obadović

- 08:30 – 08:45 *B. Mitrevski, O. Zajkov,*
Principles for Effective Physics Teacher Preparation
- 08:45 – 09:00 *O. Zajkov, B. Mitrevski,*
Teacher's Attitude Towards Need for ICT Didactics in Science Education
- 09:00 – 09:15 *Mirjana Božić,*
The Presence of Physics Education Research in Journals, Books, Projects, University courses, Curricula, and the Teaching Practice
- 09:15 – 09:30 *Dragana Miličić, Marina Drndarski, Slaviša Stanković, Zorica Lazić, Albina Holod, Imre Krizmanić, Gordana Subakov – Simić,*
New Approaches to Teaching Biology – an Interdisciplinary Workshop Designed for Teachers in Primary Schools
- 09:30 – 09:45 *Mira Vučeljić,*
Achievements of Montenegrin Gymnasium Students in Conceptual Tests in Newtonian Mechanics and Electromagnetics
- 09:45 – 10:00 *Marina Petrović,*
Educational Technology
- 10:00 – 10:15 *Nataša Branković, Danijela Petrović,*
A Comparative Analysis of the Presence of Natural Sciences and Their Didactics in Curricula for Primary Teacher Education
- 10:15 – 10:30 *Sanja Blagdanić,*
Training Prospective Preschool and Elementary Teachers to Use IBSE Method in Teaching Natural Phenomena
- 10:30 – 11:00 Coffee Break

Presiding: Oliver Zajkov

- 11:00 – 11:15 *Marija Bošnjak, Olja Maričić, Vanja Kahrmanović,*
Investigation of Children's Misconceptions in Science at the Beginning of Basic Education

- 11:15 – 11:30 *Marija Bošnjak, Dušanka Obadović, Sanja Balać,*
Popularization of the Inquiry Based Science Education and its
Application in West Bačka District
- 11:30 – 11:45 *Branka Radulović, Maja Stojanović, Dušanka Obadović,*
Mirjana Segedinac,
Assessment of the Cognitive Load of Second Grade of High
School in Physics Teaching on Example of the unit „Capillary
Phenomena”
- 11:45 – 12:00 *Ljubinko Zlatić, Olga Jovančičević,*
Learning Through and About Scientific Inquiry – Research on
Teachers’ Practise and Students’ Perception of IBSE
- 12:00 – 12:15 *Danijela Petrović, Miona Bogosavljević - Sijakov,*
Ilinko Krivokučin, Stanko Cvjetičanin,
Professional Teacher Education in Environmental Science via
Application of Biological and Chemical Experiments
- 12:15 – 12:30 *I. Rančić, D.Ž. Obadović, M. Segedinac, M. Pavkov-Hrvojević,*
The Impact of Contemporary Teaching Methods in Physics
Teaching on Developing Students’ Metacognition
- 12:30 – 12:45 *S. Cvjetičanin, D. Ž. Obadović, I. Rančić,*
The Role of Mini Projects in Integrated Science Teaching
- 12:45 – 13:00 *Tatjana Marković-Topalović, Goran Stojićević,*
Mirjana Popović-Božić,
The Science Park in Šabac
- 13:00 – 13:15 *Tatjana Marković-Topalović,*
Summer School of Science in Šabac
- 13:15 – 13:30 *Marija Rutić, Nataša Ralić, Aleksandra Radomirović,*
Danijela Stefanović,
Practical Implementation of IMSME Method Through the EU
“Greenwave 2013 Sign of Spring” Project
- 13:30 *Stevan Jokić,*
Conclusion

3. SECTION – THE HUMANITIES

Lecture Room 1, 1st floor

Friday, October 25

Presiding: Danijela Đorović

- 09.30 – 09.45 *Verica Mitrevska,*
Opportunities and Challenges for Teachers in Multiethnic and
Multicultural School Environment
- 09.45 – 10.00 *Sandra Mardešić,*
The Reflective Approach in Pre-service Foreign Language
Teacher Education
- 10.00 – 10.15 *Jasmina Đorđević, Biljana Radić – Bojanić,*
Preparing English Undergraduates for Technology-enhanced
Learning: the use of Digital Resources in a Legal English Course
- 10.15 – 10.30 *Dragiša Vukotić,*
Initial Foreign Language Teacher Education in Montenegro
- 10:30 – 11:00 Coffee Break

Presiding: Dragiša Vukotić

- 11.00 – 11.15 *Julijana Vučo,*
Challenges of Foreign Language Teachers Life-long Education in
Serbia
- 11.15 – 11.30 *Jelena Filipović,*
Foreign Language Teacher Education in Serbia: a Case for Lan-
guage Leadership
- 11.30 – 11.45 *Danijela Đorović,*
Teachers' Language in the Social Sciences Classroom: Future
Teachers' Perspective
- 11.45 – 12.00 *Katarina Zavišin,*
Teacher Development in CLIL Teaching: New Challenges of the
Modern Methodology for the Teaching of Foreign Languages and
Non-linguistic Subjects
- 12.00 – 12.15 *Danijela Manić,*
Education of CLIL Teachers

- 12.15 – 12.30 Kristina Radojčić, Identifying the Logic Structure of Languages by use of new Interactive Mobile Services – ILIKE
- 12.30 – 12.45 Ljiljana Samardžić, Teamwork (team teaching and team learning) in social sciences

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