



STEM | STEAM | STREAM

Approach in Theory and Practice of Contemporary Education

31 May, 2024

University of Kragujevac

Faculty of Education in Jagodina, Serbia



AGENDA

9:00–10:00 Registration

10:00-10:15 Opening ceremony

10:15-11:15 Plenary sessions

11:15-11:30 Questions and Comments

11:30–12:00 Coffee break

12:00–13:00 Parallel sessions

13:00 – 14:00 Lunch break

14:00 – 15:00 Parallel sessions

15:00 – 15:30 Closing of the Conference and conclusions



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10:00 – 10:15 Opening ceremony

10:15 – 11:15 Plenary sessions

Amphitheatre

Chair: Ivana Ćirković Miladinović

Parameter for online access: <https://zoom.us/j/5390909717?pwd=SS9VaDVFaXgwWnpwSWUxMVIwM044UT09> Meeting ID: 539 090 9717 Passcode: 212216

Carlise Womack Wynne, University of North Georgia, USA

Using STREAM to as a vehicle for language learning

Małgorzata Cichoń, Adam Mickiewicz University in Poznań, Faculty of Geographical and Geological Sciences, Laboratory of Geography Didactics and Educational Research

Creativity of students studying geography in Poland as a contribution to the discussion on the implementation of the STEAM concept

Jelena Joksimović & Jelena Starčević, University of Kragujevac, Faculty of Education in Jagodina

Learning - To Make, Making To Learn: STEAM Meets Maker Movement

Aleksandra Filipović, Dušan Ristanović & Olivera Cekić-Jovanović, University of Kragujevac, Faculty of Education in Jagodina

Theoretical Foundations of Innovating The Teaching of Science Using Steam Concept of Education

Discussion



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Online Session 1

Chair: Ivana Ćirković Miladinović

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12:00 – 13:00 Parallel sessions

- 1. Dóra Dergez-Rippl PhD**, University of Pécs, Doctoral School of Philosophy, Faculty of Cultural Sciences, Education and Regional Development
Self-expression, reading experience and beyond – The pedagogical relevance of our mythological tradition
- 2. Mónika Bagota & Katalin Kulman**, ELTE Faculty of Primary and Pre-school Education, Mathematics Department
Measurements and adventures at the interface of mathematics and environmental education
- 3. Koureas Argyrios, Angeioplastis Athanasios, Tsimpiris Alkiviadis, Varsamis Dimitrios**, International Hellenic University, Department of Computer, Informatics and Telecommunications Engineering, **Natsikas Konstantinos**, Life Long Training Center, ComputerGr
Teaching History with the aid of Educational Robotics
- 4. Dali Dolidze**, Ilia State University Faculty of Business, Technology and Education
STEAM project-Interdisciplinary integration of music and physics

13:00 – 14:00 Lunch Break

14:00 – 15:00 Parallel sessions

- 5. Lana Skender**, Academy of Arts and Culture in Osijek
Attitudes of Croatian Visual Art Teachers towards the Effectiveness of Blended Learning
- 6. Natalija Drakulović, Škograd, Jelena Joksimović**, University of Kragujevac, Faculty of Education in Jagodina
Drama Meets Science: Case Study Of Mathematheater
- 7. Mira Jovanović, Sanja Vuletić, Ljiljana Stankov & Nataša Dubljanin**, Academy of Applied Studies Šabac
The role of the STEM/STEAM/STREAM approach in the professional development of lecturers in colleges for pre-school teacher's education

Discussion



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Online Session 2

Chair: Marija Stanojević Veselinović

Parameter for online access: <https://zoom.us/j/3312172193?pwd=TC8zSnhWU3FiUlFmOzNmY3JlQS3FRUT09> Meeting ID: 331 217 2193 Passcode: 973602

12:00 – 13:00 Parallel sessions

- 1. Antonija Raspopović Dragić, Danica Vasiljević-Prodanović & Jelena Vidojević**, University of Belgrade, Faculty of Special Education and Rehabilitation
The STREAM Approach as a Response to Contemporary Educational Challenges: The Role of Cognitive and Sociocultural Theoretical Frameworks
- 2. Katarina Putica**, University of Belgrade, Faculty of Chemistry, Innovation center, Department of Chemical Education
Meta-analysis of the effects of STEM teaching approach on the development of 21st century competencies related to learning of natural sciences
- 3. Sanja Blagdanić & Miroslava Ristić**, University of Belgrade, Faculty of Education
Curriculum potentials for STEM/STEAM approach in younger grades of elementary school in Serbia
- 4. Aleksandra Ikonov, Katarina Šeravić Lovrak, Nataša M. Đorđević Paović & Jelica Mirosavić**, STEM Education Center
STEM certification as a didactic-methodological tool for professional development of teachers in STEM/STEAM/STREAM education

13:00 – 14:00 Lunch Break

14:00 – 15:00 Parallel sessions

- 5. Časlav Stoiljković, Aleksandra Janković**, Academy of Vocational Studies Southern Serbia, Department of High School for Teachers Bujanovac, **Igor Đurić** University of Priština, Faculty of Philosophy in Kosovska Mitrovica, **Maja Filipović**, Academy of Vocational Studies Southern Serbia, Department of High School for Teachers Bujanovac
Professional Development of Preschool Teachers in the Function of Implementation of Steam Approach
- 6. Danica Veselinov, Ljiljana Kelemen Milojević & Jasmina Mirković**, Preschool Teacher Training and Medical College in Vršac
Contextual Learning the contemporary preschool curriculum: reflections from practice
- 7. Ivan Tomić & Katarina Tomić**, The Academy of Applied Preschool Teaching and Health Studies Kruševac
Use of Bee-Bot in the development of computational thinking in preschool children

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Parallel Sessions 1 (Room 1)

Chair: Milan Milikić

12:00–13:00 Parallel sessions

- 1. Ivana Paula Gortan-Carlin & Marina Diković**, Juraj Dobrila University of Pula, Faculty of Educational Sciences, Croatia
Future Preschool Teachers' Intercultural Communication In The Context of Traditional Music
- 2. Vera Savić**, University of Kragujevac, Faculty of Education in Jagodina, **Ana Živković**, Čegar Primary School Niš, Serbia
Integrating STEM into EFL Curriculum through STEM Day Activities: Learners' and Teachers' Perceptions
- 3. Jelena Spasić, Milan Milikić**, University of Kragujevac, Faculty of Education in Jagodina, **Jelena Lukić**, University of Belgrade, Faculty of Education
The role of the STEMS concept on the development of language abilities and the functionality of knowledge from mathematics and nature and society
- 4. Marija Stanojević Veselinović**, University of Kragujevac, Faculty of Education in Jagodina
The views of Foreign Language Teachers on STEM/STEAM/STREAM concept in Education

13:00 – 14:00 Lunch Break

14:00 – 15:00 Parallel sessions

- 5. Tamara Bradonjić**, University of Kragujevac, Faculty of Education in Jagodina,
STEM approach for 21st century skills and interdisciplinary development - EFL teachers' attitudes
- 6. Sandra Tasić**, University of Kragujevac, Faculty of Education in Jagodina,
Developing creative and critical thinking through STEAM projects in early English language learning: A case study
- 7. Adisa Šahović Džanković, Selma Slezović Mehović & Goran Milanović**, University of Belgrade, Faculty of Education, Teaching department Novi Pazar
STEM Approach Implementation in the Integration of Teaching Contents of Natural and Social Sciences and English Language

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Parallel Sessions 2 (Room 2)

Chair: Gordana Stepić

12:00 – 13:00 Parallel sessions

- 1. Nataša Vukićević, Emina Kopas-Vukašinović & Ivana Ćirković Miladinović**, University of Kragujevac, Faculty of Education in Jagodina
Music and Didactic Game in the STREAM Approach: From Creation to Outcome
- 2. Gordana Stepić**, University of Kragujevac, Faculty of Education in Jagodina
Application of the STEAM learning model approach in educational practice
- 3. Nedeljko Milanović & Andrijana Miletić**, University of Kragujevac, Faculty of Education in Jagodina
The Perception of The Parents of Students of The First Cycle of Primary Education According to the Stem Concept of Learning

13:00 – 14:00 Lunch Break

14:00 – 15:00 Parallel sessions

- 4. Jelena Stošić Jović**, University of Niš, Faculty of Education in Vranje
The Significance of Modern Toys in an Interdisciplinary approach to the Teaching of Beginning Reading and Writing
- 5. Marija Krstić Radojković**, University of Kragujevac, Faculty of Education in Jagodina,
The importance of early digital literacy of preschool children
- 6. Emilija Popović, Jelena Veljković Mekić, Bojana Nikolić & Dragana Dragutinović**, Academy of Tehnical-Educational Vocational Studies Niš-Pirot
Presentation of the Project Musical For Children: A Fairy Tale from the Park
- 7. Marta Dedaj**, Preschool Teacher Training and Business Informatics College of Applied Studies – Sirmium, **Jelena Ivančević**, Preschool institution „Poletarac“, Stara Pazova **Nataša Stevanić**, Preschool institution „Pčelica“, Sremska Mitrovica **Tijana Karganović**, Preschool institution „Kaja“, Ljig
The teacher's perspective on the application of the STEAM approach to learning in education

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Parallel Sessions 3 (Room 3)

Chair: Nenad Stevanović

12:00 – 13:00 Parallel sessions

- 1. Aleksandra Mihajlović, Nenad Vulovic & Miloš Đorđević**, University of Kragujevac, Faculty of Education in Jagodina
Primary School Students Attitudes and Interest in Out-of-School Time STEAM Activities
- 2. Milan Komnenović**, University of Kragujevac, Faculty of Education in Jagodina, **Miloš Stojadinović**, University of Niš, Faculty of Philosophy
Mapping the Landscape: A Comprehensive Analysis of Artificial Intelligence Integration in STEM Education through Mixed-Methods Approach
- 3. Verica Milutinović, Ivana Obradović & Suzana Đorđević**, University of Kragujevac, Faculty of Education in Jagodina
Exploring Primary School Students' Motivation and Enjoyment in Learning Programming Through Gamification
- 4. Nenad Stevanović**, University of Kragujevac, Faculty of Education in Jagodina
Educational potential of video games for application in STEAM/STREAM approach in teaching

13:00 – 14:00 Lunch Break

14:00 – 15:00 Parallel sessions

- 5. Valentin Petroussenko**, Paisii Hilendarski University of Plovdiv
Challenges for the Student Centered Learning (SCL) within the environment of the fake information
- 6. Andrej Ignjatić**, University of Zagreb, Faculty of Organization and Informatics, Varaždin, **Diana Božić**, University of Zagreb, Faculty of Transport and Traffic Sciences, Zagreb
A Case Study on STEM Problem-Based Learning Approach in Developing Competencies for Recognizing Phishing Emails
- 7. Sanja Nikolić**, University of Kragujevac, Faculty of Education in Jagodina, **Jelena Marković**, Primary School Nada Popović Kruševac
Application of the STEAM Concept in the Flipped Classroom

Discussion



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Parallel Sessions 4 (Room 4)

Chair: Ivana Milić

12:00 – 13:00 Parallel sessions

- 1. Snežana Mirasčieva, Emilija Petrova Gorgeva, Verica Josimovska & Daniela Koceva**, Goce Delcev University Štip, Faculty of Educational Sciences
Dimensioning of Strategies in Contemporary Educational Work in a Historical Context – From Comenius To STREAM
- 2. Daliborka Popović, Božana Rašković**, University of Priština-Kosovska Mitrovica, Faculty of Education Prizren-Leposavić,
Self-assessment of the competencies of employees in educational institutions for the STEM concept of education
- 3. Anđela Milovanović, Irena Golubović-Ilić & Slađana Stanković**, University of Kragujevac, Faculty of Education in Jagodina
Impact of STEM Concept Application on Prevention, Correcting And/Or Eliminating Students Misconceptions
- 4. Ivana Milić & Jelena Mladenović**, University of Kragujevac, Faculty of Education in Jagodina
Students' Attitudes Towards The Implementation of the STEAM Approach of University Teaching

13:00 – 14:00 Lunch Break

14:00 – 15:00 Parallel sessions

- 5. Aleksandar Ignjatović, Živorad Marković & Bojan Miloradović**, University of Kragujevac, Faculty of Education in Jagodina
The Role of Physical Education in STEAM Learning
- 6. Aleksandar Milenković, Aleksandra Maksimović, Dragutin Ostojić & Dalibor Rajković**, University of Kragujevac, Faculty of Science
How high school students assess the importance of STEM workshops for acquiring new knowledge
- 7. Vojislav Andrić**, Mathematical Club Diofant, Valjevo
One Methodical Approach to Modelling STEM Material for Learning and Teaching

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Amphitheatre

15:00 – 15:30 Closing of the Conference and conclusions