

31-May-2022

Report on Training: Workshop Strengthening Teaching Competencies in Higher Education in Mathematical and Computer Sciences
University Teaching - Can It Be More Efficient?

Place: Faculty of Science, University of Kragujevac

Schedule: 28-April-2022 – Workshop - face to face
29-April-2022 – Online consultations with presenters
9-May-2022 – Online consultations with presenters
23-May-2022 – Online presentation of Workshop results and evaluation

Agenda: www.pmf.kg.ac.rs/?id=1050

Attendance: 50 university teachers and researchers ([attendance list](#)).

Preparation of the Training

During the April faculty staff members were informed (by an e-mail, printed poster, and news on Faculty web site) about the program of the training and lectures abstract and invited to participate. Registration of participants was organized through on-line form. After registration participants have been enrolled on course created in Faculty's MC Teams, which was used for on-line communication and delivering teaching materials. The workshop was conducted over a period of four weeks. The first meeting was face-to-face workshop dedicated to presenting and informing participants on methods and tools of interest. At the end of workshop participants were encouraged to transfer some of the presented practices to their actual course setting. Support for this task was provided within two terms for discussion meetings. The third and final term was dedicated to presentations and discussion on materials participants delivered as final.



УНИВЕРЗИТЕТСКА НАСТАВА – МОЖЕ ЛИ ЕФИКАСНИЈЕ?
ИЗАЗОВИ САВРЕМЕНЕ НАСТАВЕ ПРЕ, ТОКОМ И ПОСЛЕ ПАНДЕМИЈЕ

Драге колегице и колеге,
Позивамо вас на **СТРУЧНИ СЕМИНАР** у организацији тима **ЕРАСМУС+ пројекта ТеСотр**. Циљ семинара је:

- да пружи кратак али информативан преглед иновативних наставних метода и употребе ИКТ у настави природних наука, математике и рачунарства, као и
- да организује дискусију о искуствима наставе на даљину и евентуалним променама које смо увели или ћемо трајно увести у наш рад услед тог искуства.

Семинар ће се одржати на ПМФ-у у четвртак 28. априла. Више о програму семинара и пријави за семинар можете наћи у зупи датог QR кода.

28. 04. 2022.

ПРИРОДНО-МАТЕМАТИЧКИ ФАКУЛТЕТ

Strengthening Teaching Competences in HE in Natural and Mathematical Sciences
59243-EPF-1-2018-1-RS-EPKKA2-CBHE-IP

Face-to-face workshop

Face-to-face workshop organized on 28th April. Since participants had expertise in different knowledge domains (physics, mathematics, biology, chemistry, computer science) and different teaching and learning context to fit in accordingly, presentations were divided into two parts:

1. General part - common themes session,
2. Parallel sessions dedicated to teaching methods and educational technologies practices in different scientific areas.

General part

General part of the Workshop was devoted to new methods of teaching which incorporate ICT and presented materials were applicable for any scientific discipline. There were five presenters.

1. Slađana Dimitrijević, *Blended learning – potential for change in HE*
2. Ana Kaplarević Mališić, *Flipped classroom – why and how?*
3. Aleksandar Milenković, *Visualization in teaching and its effects – presentation of empirical research*
4. Jasna Stevanović, *Tools for making educational videos*
5. Marina Svičević, *Interactive video as a tool for increasing students' motivation and attention*

At the end of this part of Workshop open panel discussion, with theme *Have we learn something new about teaching during pandemic? What is that?*, was organized.

Photos



**Strengthening Teaching Competences
in Higher Education
in Natural and Mathematical Sciences**



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Parallel sessions

After the general part of the Workshop there were organized three parallel sections, each devoted to teaching other scientific area.

Section for biology and ecology

1. Ivana Radojević, *Applications of selected digital tools and web resources in teaching of biology*
2. Snežana Branković, *Use of EPSON camera as a tool for improving teaching of botanic*

Photos

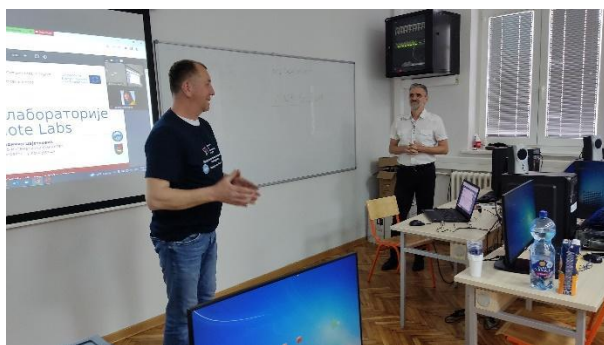


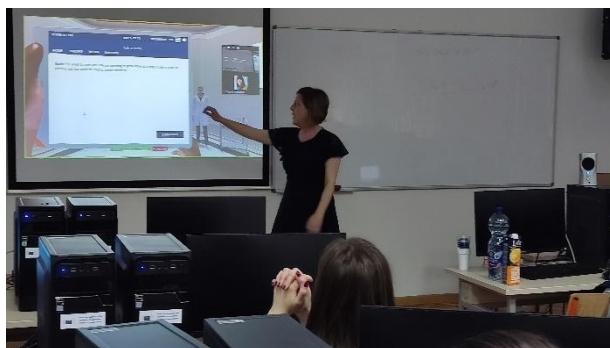
Section for physics and chemistry

1. Vladimir Cvjetković, *Remote online laboratory in teaching of physics*
2. Jelena Đurđević Nikolić, *Use of virtual laboratory in teaching of chemistry*
3. Milan Kovačević, *Vision for use of experiments in teaching of physics in 2050*

In this section as a guest (online) participate professor Tatjana Anđelković (Department for Chemistry, Faculty of Science) from University of Niš.

Photos

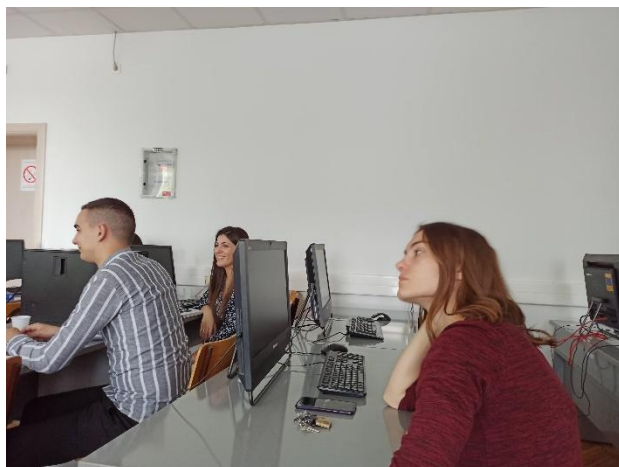




Section for mathematics and informatics

1. Aleksandar Milenković, *Possibilities for use dynamic software GeoGebra in HE teaching*
2. Tatjana Tomović Mladenović, *Improvement of teaching by using software Wolfram Mathematica*

Photos



Online part of the training

At the end of Workshop participants were invited to create teaching material improved by selected methods presented during face-to-face workshop to the final session and submit it as an assignment on MS Teams course. They had three weeks for delivering final version of their materials, with two on-line meeting for consulting with workshop lecturers. On the final section several participants presented their works and share their opinions about conducted training. Participants were invited to evaluate the Workshop and give some suggestions for future similar events through questionnaire, also. The evaluation results were presented by Slađana Dimitrijević on final meeting. 23 participants gave their feedback on Workshop, and the [results](#) showed that overall impressions were positive. The average rate was 4.74 (scale was from 1 to 5), 73.9% said that they for sure will participate in future similar events, and no one said that will not participate in future similar events. Also, 13 of them, put text note to additionally express they satisfaction with training. Additionally, some of the participants have implemented some of the presented practices and used demonstrated tools in their courses immediately after training completion, which presents real proof of training concept value.

Report made by

Slađana Dimitrijević