Moped Online Project - Advanced Training Of Scientific And Pedagogical Staff Of The Pedagogical Institute Of Grinchenko University

From ***May 20 - 29,* 2020**, online professional development within the EU Erasmus+ project №586098-EPP-1-2017-1-UA-EPPKA2-CBHE-JP "Modernization of Pedagogical Higher Education Using Innovative Teaching Technologies-MoPED" for the purpose of further using of the tools in the Center for Innovative Educational Technologies took place.

32 scientific and pedagogical workers took part in the training. The vast majority of them are teaching staff of the Pedagogical Institute, who will work in the Center of Innovative Educational Technologies. The class was opened within the framework of the MoPED project at the beginning of the new academic year.

Professional development took place in a specially created online room.

The participants received a video tutorial on how to join it https://youtu.be/3Bzz-QtqSDA.

The professional development program included 7 training sessions and additional tasks for self-completion using new pedagogical technologies and digital tools. Training was conducted by members of the academic group of MoPED project under the guidance of Natalia Morse, the project coordinator at the Grinchenko University, professor, Department of Computer Science and Mathematics, Doctor of Pedagogical Sciences, corresponding member of NAPS of Ukraine. These trainings included sharing experience gained by the the academic group of MoPED project during training meetings and online trainings from European partners.

On **May 20, 2020** at the training “Modern Educational Trends” Natalia Morze introduced participants to the concept of digital transformation in education and challenges associated with Covid-19. Participants discussed the professions of the future and the competencies that students should possess in the 21st century. During the training “The Concept of STEAM Education and Methods for its Implementation” the speaker outlined the concept of STEAM education, its features and ways of implementation in primary schools based on the integration of academic subjects. Natalia Morze described STEAM competencies and the main teaching methods and pedagogical technologies that will allow teachers to develop scientific education and form innovative competencies of their students.

The main goal of the training “Design Thinking for Creating Innovations”, which was conducted by Maria Boyko, senior lecturer of the Department of Computer Science and Mathematics, Candidate of Pedagoical Sciences, was to train participants in using the tools of a person-oriented approach and design thinking to solve complex problems in various spheres of human activities, to encourage innovation in accordance with the needs of a person, community and society. Design thinking is the most modern global method of creating innovations, which is actively used in the work of companies such as Facebook, Google, Apple, Procter&Gamble, Samsung, IBM, IKEA. Learning the basics of design thinking is an important part of the educational process at Stanford University and other leading universities in the world. Participants of the training got acquainted with the concept of design thinking, its stages, the “double diamond” strategy, rules for generating ideas, immersion and research of real user needs, possible types of prototypes, and so on.

On May 22, 2020, Viktoriya Vember, associate professor of the Department of Computer Science and Mathematics, Candidate of Pedagogical Sciences, introduced the participants to the features of using the inquiry-based learning in the educational process, as well as its main features. The speaker provided examples of digital technologies to support the implementation of inquiry-based learning during the training session "Inquiry-based Learning". The participants of the training got acquainted with the structure of the Go-Lab ecosystem, which includes the Go-Lab portal containing a list of available virtual laboratories, applications that can be used to create research training spaces, and a set of available research spaces, etc. Participants of the training got acquainted with the stages and phases of research according to various models, in particular, the 5E model and the research cycle in Go-Lab. It demonstrated the features of searching for virtual laboratories on the site Phet.colorado.edu. Considerable attention was paid to the introduction of the Graasp platform for creating research learning spaces and the features of creating and using Inquiry Learning Spaces (ILS) on the Graasp platform.

The training "Formative Assessment and Digital Technologies" started with an introductory survey of participants using the service Kahoot.com, which demonstrated that participants often have a need to

conduct surveys, discussions, or quizzes. Participants also consider surveys being interesting, easy, and interactive an important feature. During the training, participants got acquainted with the concept of formative assessment and its features, various assessment strategies, goals of formative assessment at different stages of the lesson, the structure of the formative assessment process, examples of digital tools classified into different groups according to the purposes of formative assessment they can be used for. One of the types of formative assessment is a peer assessment. During the training participants discussed the features of this type of assessment, its advantages and disadvantages in comparison with traditional assessment, as well as examples of digital resources that can be used for peer assessment. Reflection, as one of the types of formative assessment, was conducted at the end of the training using the service https://answergarden.ch/1239019.

On May 29, 2020, Svitlana Vasylenko, deputy head of the SRL of Informatization of education, lecturer and methodist, held a training “Storytelling and Digital Tools”, where she presented examples of using storytelling for either revising, or presenting new material and additional information on the subject, and also provided examples of possible tasks for students using this technology to develop such important skills of a successful young person of the 21st century as creativity, communication, problem-solving, etc. Participants of the training noticed the relevance of tasks for students, including the creation of word clouds, comics, Mind maps, as well as the importance of familiarization of future teachers with tools for their further implementation in the educational process. Participants were interested in tasks for creating stories in different languages, using game technologies to solve a problem, reveal an idea that concerns a work of art, or a natural phenomenon. Participants supplemented their experience with a list of tools for creating word clouds that will later be used as for the development of comics and the possibility of using it to record conversations into bubbles of these comics.

During the training “Innovation Class and the Purpose of the Main Equipment, Methods of its Use in the Educational Process” delviered by Liliya Varchenko-Trotsenko, research associate of the Center for Distance Learning Technologies of the SRL Informatization of Education, Candidate of Pedagogical Sciences, the participants got acquainted with the list of the main equipment of the innovative class and the methods of its usage in the educational process. The equipment was installed at the Pedagogical Institute with the funds of the MoPED project. We discussed the main models of blended learning, the rotation zones and ways of organizing the educational process in the ICR. Participants got acquainted with the principles of using 3D printers, the process of scanning, designing, and printing on it. Participants were shown how to use robot constructors, virtual reality glasses, digital flipchart, and multimedia display for organizing innovative training methods.

Colleagues, who participated in the training, discussed various topics online and asked clarifying questions in the chat. They also filled out questionnaires with reflection after each training. Thus, the majority of participants noticed the professional presentation of the material and the appropriate use of technological and technical resources, a high level of preparation and delivering training.

Participants noticed that "Trainings were conducted effectively”, “It was useful to hear about new platforms for practical usage”, and thanked “for practical recommendations and ideas on how to implement the proposed tools in working with students.” The presentation materials that the participants worked with during the training sessions were sent to the email address.