2nd workshop – Problem Based Learning (PBL), online quizzes and logical tasks

Session 2: Online quizzes and logical tasks

Daniela Tuparova, South-West University "Neofit Rilski", Blagoevgrad

Expected Learning Outcomes

1. Choose of logical tasks suitable for different school subjects and providing propaedeutic for algorithms and programming
2. Create new examples of logical tasks suitable for different school subjects and providing propaedeutic for algorithms and programming

Teaching Methods/Approaches

1. Teacher presentation and demonstration
2. Group activity
3. Individual activity in form of online quizzes and games.

Sources of training materials

Bebras, International Challenge on Informatics and Computational Thinking. Available: https://www.bebras.org/ (Accessed: 30.06.2018.)

LearningApps. Available: https://learningapps.org/ (Accessed: 04.07.2018.)

Teaching London Computing. Available: https://teachinglondoncomputing.org/ (Accessed: 04.07.2018.)

e-laboratorij CARNet, ankete/kvizovi. Available: http://e-laboratorij.carnet.hr/category/interaktivni-sadrzaji/ (Accessed: 04.07.2018.)

Web 2.0 tools:

- Learningapps, Available: https://learningapps.org/ (Accessed: 4.7.2018.)
- Kahoot. Available: https://kahoot.com/ (Accessed: 30.6.2018.)
- Wizer. Available: https://app.wizer.me/ (Accessed: 30.6.2018.)
- Match the memory. Available: https://matchthememory.com/ (Accessed: 4.7.2018.)

Duration: 90 minutes

Topic/Sub-topics	Learning Objectives	Evaluation
1. Logical tasks and quizzes for development of algorithmic skills and thinking	*Participants will be able to classify logical tasks for* propaedeutic of algorithm and programming and construct quiz appropriate for implementation.	1. Learners explore examples and resources in order to discuss different type of tasks for development of algorithmic skills and their application in school.
1.1 Classification of tasks for development of algorithmic skills and thinking. Examples from different school subjects.	1. Classify logical tasks providing propaedeutic for algorithms and programming	
1.2 Main requirements for online quizzes development.	2. Construct quizzes, appropriated for online implementation.	
1.3 Demonstration of examples of different logical tasks and quizzes developed in Web 2.0 environment (Learningapps.org, Kahoot etc.) and applicable in school subjects.	3. Experiment with existing examples of logical tasks and quizzes in form of games.	
2. DEVELOPMENT OF EXAMPLES OF LOGICAL TASKS AND QUIZZES	*Participants will be able to create examples of logical tasks, appropriate for different school subjects.*	1. Learners modify some of examples and discuss the possibilities of implementation of the tasks in school subjects and lessons (group activity).
2.1 Modification and adaptation of examples of logical tasks for different school subjects.	1. Create new examples of logical tasks based on given examples. 2. Give new examples of logical tasks for algorithmic thinking.	
2.2 Development of examples of logical tasks		