Workshop 2 – Problem Based Learning (PBL), Online Quizzes and Logical Tasks

Session 3: Online quizzes and logical tasks

**Expected Learning Outcomes**

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

**Teaching Methods/Approaches**

* Teacher presentation and demonstration
* Individual activity
* Group activity - collaboration

**Sources of training materials**

* Bebras, International Challenge on Informatics and Computational Thinking: <https://www.bebras.org/> (30.6.2018.)
* LearningApps: <https://learningapps.org/> (4.7.2018.)
* Teaching London Computing: <https://teachinglondoncomputing.org/> (4.7.2018.)
* e-laboratorij CARNet, ankete/kvizovi: <http://e-laboratorij.carnet.hr/category/interaktivni-sadrzaji/> (4.7.2018.)

Web 2.0 tools:

* Learningapps: <https://learningapps.org/> (4.7.2018.)
* Kahoot: <https://kahoot.com/> (30.6.2018.)
* Wizer: <https://app.wizer.me/> (30.6.2018.)
* Match the memory: <https://matchthememory.com/> (4.7.2018.)

**Duration:** 3 hours (135 minutes)

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| **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.* | Learners explore examples and resources in order to discuss different types of logical tasks for the development of algorithmic skills and their application in school. |
| 1.1. Classification of tasks for the development of algorithmic skills and thinking; examples from different school subjects | Classify logical tasks providing propaedeutic for algorithms and programming |
| 1.2. Main requirements for online quizzes development | Construct quizzes appropriate 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 | Experiment with existing examples of logical tasks and quizzes in the 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.* | Learners modify some of the 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 | Create new examples of logical tasks based on given examples  Give new examples of logical tasks for algorithmic thinking |
| 2.2. Development of examples of logical tasks |