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

Session 1: Introduction to Problem Based Learning (PBL)

**Expected Learning Outcomes**

* Demonstrate competence in the principles, process and application of Problem Based Learning in learning situations/scenarios.
* Use the principles of PBL to design lessons for stimulating algorithmic thinking in problem-solving engagements.

**Teaching Methods/Approaches**

* Teacher presentation and demonstration
* Discussion
* Group activity - collaboration
* Peer-review

**Sources of training materials**

* Video “Learning scenario designing environment LePlanner.net”: <https://vimeo.com/168032150> (20.8.2018.)
* LePlanner: <https://beta.leplanner.net/#/> (20.8.2018.)
* Rõbtšenkov, Romil: LePlanner a tool for creating learning scenarios: <http://htk.tlu.ee/event/wp-content/uploads/2016/05/romil_robtsenkov.pdf> (20.8.2018.)
* Clayton, Graham & Pierpoint, Peter: Problem Based Learning: A Would-be Practitioner’s Guide, University of Plymouth Business School, 1996.: <http://www2.uwe.ac.uk/faculties/BBS/BUS/Research/NTFS/problem.pdf> (20.8.2018.)
* Christiansen, E. T., Kuure, L., Mørch, A., & Lindström, B. (Eds.): PROBLEM BASED LEARNING FOR THE 21st CENTURY: New Practices and Learning Environments (1 ed.), Aalborg Universitetsforlag, 2013.: <http://vbn.aau.dk/files/187818413/PROBLEM_BASED_LEARNING_FOR_THE_21st_CENTURY_WEB.pdf> (20.8.2018.)
* Jurković, Violeta. (Ed.): Guide to Problem Based Learning, Ljubljana: Slovene Association of LSP Teachers. 2005.: <http://www.sdutsj.edus.si/SDUTSJ_Guide_%20to_%20PBL.pdf> (20.8.2018.)

**Duration:** 1 hour (45 minutes)

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| **Topic/Sub-topics** | **Learning Objectives** | **Evaluation** |
| **1. INTRODUCTION TO PROBLEM BASED LEARNING** | *Participants will able to demonstrate competence in using the principles and process of the PBL approach to solving problems.* | Learners explore and distinguish PBL from other learning approaches and argue for its relevance or otherwise – relative to the various learning scenarios. |
| 1.1. Problem Based Learning Explained (definition and descriptions) | Explain and describe PBL – with the emphasis of relevant descriptors |
| 1.2. Key principles of Problem Based Learning | Identify and describe the key principles and characteristics underpinning PBL |
| 1. **PRACTICAL – HANDS-ON PBL ACTIVITIES** | *Participants will be engaged in the identification of PBL related cases, demonstrate the ability to address them and review proposed solutions.* | Learners identify real-life or learning cases where PBL is applicable, define the problem and use PBL principles to propose solutions to the problems as a group activity.  Learners are engaged in peer-reviewing discussion of proposed or administered solutions. |
| 2.1. Modelling the PBL approach in conceptual problem cases/learning scenarios | Identify real-life and learning cases and where PBL could be applied  Propose process and procedures in the PBL approach |