Workshop 3 – Games and Tools for Programming

Session 5: Implementing Computational Thinking and programming with GBL tools

**Expected Learning Outcomes**

* Understand the elements and process of computational thinking from teacher perspective
* Compare computational thinking with programming
* Being able to introduce game based learning tools with elements of coding in the classroom

**Teaching Methods/Approaches**

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

**Sources of Training Materials**

* Computational Thinking: <https://code.org/curriculum/course3/1/Teacher> (4.1.2019.)
* Scottie Go! for Computational Thinking <https://www.youtube.com/watch?v=hXZOGFaI6vc&t=16s> (4.1.2019.)

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

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| **Topic/Sub-topics** | **Learning Objectives** | **Evaluation** |
| **1. HOW TEACHERS CAN INTRODUCE PROGRAMMING IN THE CLASSROOM FROM THEIR PERSPECTIVE** | *Participants will be able to recognize the elements and the process of computational thinking and programming.* | Learners explore and analyse applications of GBL tools within the class in order to point out benefits of introduction of computational thinking and programming. |
| 1.1. Cycles for learning about how to code with focus on computational thinking | Explore the concepts of learning programming from teacher’s perspective |
| **2. USING GAME BASED LEARNING TOOLS WITH ELEMENTS OF CODING IN THE CLASSROOM** | *Participants will be able to recognize the importance and the concept of collaborative games with coding.* |
| 2.1. Video presentation and discussion of game based learning tool Scottie Go! | Understand the role of GBL tools for coding and in development of computational thinking  Introduce a way to incorporate technology and digital tools in engaged way |