Workshop 3 – Games and Tools for Programming

Session 6: micro:bit in classroom

**Expected Learning Outcomes**

* Recognize the elements and process of using micro:bit
* Compare micro:bit with Scratch
* Be able to develop activities using micro:bit

**Teaching Methods/Approaches**

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

**Sources of Training Materials**

* Computational Thinking: <https://code.org/curriculum/course3/1/Teacher> (4.1.2019.)
* micro:bit: <https://microbit.org/hr/ideas/> (4.1.2019.)
* BBC micro:bit edukacijski materijali: <http://izradi.croatianmakers.hr/bbc-microbit-uvodna-stranica/> (4.1.2019.)

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

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| **Topic/Sub-topics** | **Learning Objectives** | **Evaluation** |
| 1. **INTRODUCTION OF MICRO:BIT**
 | *Participants will be able to describe the functionalities and features of micro:bit and recognize and compare basic micro:bit applications with Scratch.* | Learners explore and analyse simple micro:bit applications and compare it with Scratch projects. |
| 1.1. Introduction of micro:bit as tool for programming (basic concepts, how it differs from Scratch)  | Explore the functionalities and features of micro:bit, micro:bit development environment, and basic event driven programming |
| 1. **HOW TO APPLY MICRO:BIT** **IN DIFFERENT SCHOOL SUBJECTS**
 | *Participants will be able to introduce basic micro:bit applications in their classroom.* | Learners explore and analyse micro:bit projects and explore possibility to apply them in their classes for active participation of their students (group activity). |
| 2.1. Demonstration of using simple micro:bit application for different school subjects  | Analyse existing applications suitable for different subjectsAnalyse examples of project-based learning using micro:bit |
| 2.2. Developing and adopting micro:bit application for different school subjects  | Be able to alter micro:bit code in order to better match learning outcome  |