

Learning Design for: My first Hour of Code

CONTEXT

Topic: Coding, Games, Computing

Total learning time: 25

Number of students: 10

Description: My students have never tried coding, at least not in school. Most of them not use computers than for easy tasks: communication, online research or to play. What they do at ICT hours is far to learn and use programming language. The purpose of this activity is to present to my students the possibilities they have to understand, use and develop applications using coding.

AIMS

The student will understand what is coding and learn some basic for create something new.

OUTCOMES

Knowledge: students will develop knowledge about web coding

Application: App Inventor

TEACHING-LEARNING ACTIVITIES

Introduction

Read Watch Listen // 10 minutes // 10 students // Tutor is not available

The students will watch the 6 minutes video attached. Then they will watch president Obama's speech about it, also attached

Discuss // 5 minutes // 10 students // Tutor is available

Students discuss about the aims of Hour of code, and something about Computer Science, trying to find arguments in their view for this initiative

Practice // 10 minutes // 1 students // Tutor is not available

Each student will create their own account on <http://learn.code.org> and try to do one activity from <http://studio.code.org>



Teacher will provide students with a list of sites that can be used for those who want to experience coding and a list of video showing the experience of students who used coding.

Discover

Investigate // 30 minutes // 1 students // Tutor is not available

At home, each student will access one or more sites in the list made available by the teacher, trying to figure out the basics of visual programming.

Collaborate // 10 minutes // 2 students // Tutor is not available

Each student will work with a colleague, appointed by the teacher, to communicate the results of its own experience. Communication will be done online. They will then complete a survey that will be analyzed in class

Produce // 15 minutes // 1 students // Tutor is not available

Each student will make a short presentation of results or particular facts drawn from the first attempt to use coding. Electronic presentations will be posted on the class blog specially created for this event

Collaborative work of the students will be focused on the exchange of information to facilitate the use of a new visual programming language

Produce

Practice // 10 minutes // 2 students // Tutor is not available

Students in pairs will work on App Inventor using Hello Purr for App Inventor 2 tutorial.

Collaborate // 10 minutes // 2 students // Tutor is not available

Then they will decide to modify this tutorial to customize an own application. They will choose an appropriate image and sound, to represent them, they will use into the application that will create.

Produce // 10 minutes // students // Tutor is available

Students will modify the application created using the tutorial using your own image and sound files. They will introduce at least another component (button, .text, etc). they will test their work using onscreen emulator and save their work as an apk file.



Teacher will provide assistance if requested. If there are students who completed their task or have advanced knowledge using coding, they can provide help to colleagues who requests it

Present

Discuss // 10 minutes // 10 students // Tutor is available

Each team will present their work. It will highlight the appreciation of each team on the ease of understanding coding. The teacher will ask students to submit an application based on what they have learned

Collaborate // 10 minutes // 10 students // Tutor is available

It will be achieved a ranking of the most interesting applications made for specific criteria that will be used: complexity, appearance, utility, innovation. Based on the proposals of each team will be established by consensus a theme that will be developed by each student individually in a set time

Based on code.org existing model, each student will receive a diploma for participation in the first practice programming activity, using coding

[View this lesson plan online.](#)

This lesson plan was created as part of the online course [‘How to Teach Computing: An Introduction to Concepts, Tools and Resources for Secondary Teachers’](#), funding for which was provided by the Grand Coalition for Digital Jobs.



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