

Title: “VIRTUAL MUSEUM USING DIGITAL STORYTELLING FOR TEACHING SCIENCE”

Teaching Plan – At list Three Lesson Hours

Cognitive Subjects: Science, Informatics

Education Level: Secondary Education - High School

Abstract

The aim of this Learning Scenario is the comprehension of scientific way of thinking while acquiring digital skills. In the first phase, students performed experiments either in the school laboratory or in the field. In the second phase, virtual museums are created presenting the experiments.

Objectives

The aim of the teaching proposal is to combine the laboratory exercise with an educational practice that arouses the students' interest, in order to better achieve the final goal, which is a deeper understanding of scientific research in Science (formulation of a hypothesis, laboratory experiment, verification/rejection of the initial hypothesis).

Specifically: Cultivating scientific thinking, developing Science lab skills, enhancing digital skills, developing collaboration skills.

Activity Description

Digital Story Telling: This methodology involves five stages.

- The first phase (Story planning) concerns the preparation of the digital story script and often includes, in addition to the writing of the narrative text, some other sub-practices such as the drafting of storyboards.
- The second phase (Preproduction) is related to the collection of the material necessary for the story, such as images.

- The third phase (Production) involves the recording of the voice narration and the composition of the individual elements with the help of appropriate software.
- The fourth phase (Postproduction) has to do with the final finishing of the digital narration and the storage of the work.
- Finally, the fifth and last phase (Distribution) is equivalent to the completion of the whole process, which is achieved through the viewing, presentation of the project.

Creation of Virtual Museum:

1st stage

In this stage students study science objects and carry out experiments in groups. For each laboratory exercise students record the experimental process using mobile applications (taking photos).

2nd stage

The material is then posted in a shared folder so that all experiments can be accessed by all groups.

3rd stage

The next step is to create virtual museums using digital storytelling and the power point presentation software. The groups of students compile pictorials by selecting the experiments they want to present and complete the final finishing of the digital narrative by adding titles, transitions and saving the project.

The virtual museums created by the students have to consist of multiple rooms, one for each experiment, and include a document with materials - instruments, instructions, a video presentation describing the experimental process and photographs of the experiment being performed.

Annexes:

I. Activity for 3rd stage:

Creation of a virtual museum

1. We watch the following video:

<https://www.youtube.com/watch?v=s8Z2D86oXSA>

2. Then we create our own museum which will have:

- a. entrance that leads to at least two rooms
- b. the 1st room with Physics experiments
- c. the 2nd room with Chemistry experiments
- d. the 3rd room with Biology experiments

Each of the science rooms should consists of the following features:

- Title of the experiment
- The materials needed for the experiment in English
- Photos
- Links in order to return to the initial place