Section 2

Chapter 8 - Main Achievements Of Mobile Learning Through The Use Of Educational Aplications

Case Scenario 5

Title: ***START - Videogames inspired by the world of Art***

Description:

The educational video game START is an experience of sustainable authoring (i.e. usable as an operational model in schools) developed in 2017 by Sara Marani, a student of the Course in *Multimedia Education* at the Brera Academy. The theme of the game is famous paintings, from which it derives the graphics and the original pictorial style; in this way you can better store the paintings because they are associated with a fun activity (the game) and are more easily imprinted in the memory.

These are mini-games that have as their initial screen the original painting with which you can start playing right away. The deliveries are quite simple and suitable for everyone: from children of school age (primary school) to adults nostalgic for videogames of the 1980s. The actions and themes dealt with in the various games/paintings are relevant to the artistic current of belonging or the biography of the painter himself, in order to provide stylistic coherence and didactic correctness.

High definition photographs were used for the graphics. In Photoshop all the elements necessary for the interactive functioning of the game (characters, objects, etc..) have been isolated. The backdrops have then been reconstructed, where necessary, so that the various elements can be displaced and moved within the painting. The items were finally exported in *.png* format.

As far as programming is concerned, once the various parts were isolated, they were imported into *Scratch*, recreating the composition and inserting all the elements in their place. A scheme has

been created to decide the role and logical functioning of the various elements within the game; Scratch uses block programming (or visual). Some games are controlled by keyboard, others by mouse.

Four paintings were used to make the prototypes:

- "The Folies-Bergère Bar" by Manet. The aim of the game is to deliver orders to customers; we are in front of the bar counter (as it shows in the same picture) and we have to move the protagonist to deliver customer orders (listed in a list located in the top left).

- "The Biker" by Depero. This is a motorcycle race in which the fastest rider wins (inspired by the concept of speed present in Futurism). There are two players and they move within different scenarios represented by Futurist paintings (the countryside, the forest, the city).

- "The voice of the wind" by Magritte. This painting, with three spheres suspended in the sky as its subject matter, is transformed into a pinball machine in which the most famous elements of Magritte's painting (the pipe, the bowler, the clouds) become an integral part of the game.

- "Some circles" by Kandinsky. There are two game modes: free play, in which the circles of the painting move randomly in space and clicking on them you get the sounds associated by Kandinsky to that particular colour, so you can learn about the colours and associate them to the sounds of musical instruments creating original compositions. In the guided mode some circles light up and sound in sequence and the player has to repeat the sequence (you can base it on the sound or on the colour, developing both cognitive abilities).

For the development, Photoshop was used for the graphic part and Scratch for the programming part.