

Challenges in the Design and the Development of the Educational Serious Game “The Thracians”

Malvina Rousseva

Institute of Art Studies at the Bulgarian Academy of Sciences,
6, G. Bontchev Str., 1113 Sofia, Bulgaria
malvina.rousseva@gmail.com

Abstract: The paper presents the key challenges that we faced in the creation of the serious educational game “The Thracians”. We had to choose the most appropriate architectural environment and methodology to apply in all stages. The selection of historical facts, archaeological and artistic artefacts for the Thracian civilization was based on Thracians lifestyle, beliefs and traditions that will provoke students interests and wish to play the game.

Keywords: serious educational games, methodology, design, development, Ancient Thracian Civilization, Improved Knowledge Understanding.

The key issues that we had to take into full consideration concerned the architectural design and the methodology of the game “The Thracians” (Márkus, Paneva-Marinova, & Luchev, 2018), (Márkus, et al, 2018), (Paneva-Marinova, et al, 2018a), (Paneva-Marinova, et al, 2018b). One of the larger challenges we faced was to select and present *only* the most salient information regarding the Thracian civilization so as not to overwhelm students with too many facts, names, and dates, as textbooks tend to do. Furthermore, we wanted to relate historical data by means of both text and image, used on equal terms as sources of information. We aimed to train students to view visual images analytically and understand that architecture and objects (such as the archeological finds featured in the game) also communicate about the history, religion, and daily lives of the people of the past, often revealing information not otherwise accessible. Some of the other main challenges included:

1. The study of how the Thracian civilization is taught in textbooks and workbooks for students in third to six grades.
2. The creation of a visually and intellectually engaging educational story presented more dynamically and attractively than the texts required in school.
3. Determining the appropriate structure of the game, the exterior and interior architectural design, the criteria for texts, images and mini games selections and the project final execution.
 - a. Specific criteria:

- The architecture, the texts, the images and the illustrations in the design of the game as well as the content of the mini games must correspond to the original examples of Thracian culture.
 - The environment of the game must be realistic and comprehensible
 - The information, the questions and the answers in the mini games must follow logically from facts given earlier in the game
 - The language of the texts must be literary and clear
 - Every text and image must provide information about the Thracians, different from those in the textbooks.
- b. Structure of the architectural design and the game:
- The game takes place in an original Thracian cult building with six rooms
 - The design of each room must correspond to a theme from the Thracian culture and history
 - The access/entrance to each room is after solving a mini game
 - The interior of the rooms – floor, ceiling, walls and stone doors corresponds to the authentic architecture of the Thracian cult buildings
4. Technical and technological challenges
- Provision of Internet access and high speed;
 - The requirements of the users about the access devices, viz. PC, tablets, VR headset, smart phones, etc.
 - The usage of flexible game development tool, etc.

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