To engage the “serious players”, we can build a serious game based on the intrinsic metaphor [Fabricatore 2000]: “[…] a virtual environment and a gaming experience in which the contents that we want to teach can be naturally embedded with some contextual relevance in terms of the game-playing […]”

Here are the Six Facets (raised problem, suggested solution and details) of our conceptual framework to build serious games with an intrinsic metaphor.

**Pedagogical objectives**

**How to define what is going to be taught to the “serious players”?**

Setting the frame of reference (including misconceptions) of the domain and educational goals.

As a serious game is a learning system, at first we must define what are the learning objectives. The learning design can be done with the help of knowledge modeling tools like MOT [Paquette et al. 2006].

**Deployment Conditions**

**How to deploy the serious game while maintaining its educational and recreational qualities?**

Defining the usage conditions of a serious game.

During the design of a serious game it is a real matter to describe how it can be used by the “serious players”, i.e. Alone? In a team? Online, or in a classroom? How long will last a game session? How this session will be included in the curriculum, etc.

**Domain Simulation**

**How to respond to the proposals of the “serious players”?**

Defining a formal model of the domain based simulation.

We consider that serious games based on intrinsic metaphor are running with a simulation engine. This engine is made to return domain relevant values to the serious players depending on their actions.

**Interactions**

**How to engage the “serious players” by allowing them to interact with the game?”**

Defining interactions with the formal model thanks to the intrinsic metaphor.

**Problems & Progression**

**What problems to give to the “serious players”?**

Definitions of the “serious players” progression in the levels of the serious game.

Serious games are both games and learning tools. In games, the progression is conceived to keep the players motivated. In learning systems, progression allows learners to acquire new knowledge and competencies. The purpose of this facet is to ensure that the mix of both these objectives is sustained.

**Decorum**

**What kind of multimedia elements to increase the motivation of “serious players”?**

Definition of the decorum.

The decorum is both multimedia assets, scenario elements and interactions that are not related to the domain simulation. These are used to engage the “serious players”.

**Pedagogical Expertise**

**Game Design Expertise**


*a collaborative tool library for the facets*

http://seriousgames.lip6.fr/DesignPatterns

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