A DIGITAL LAB FOR THE CO-DESIGN, CO-DEVELOPMENT AND CO-EVALUATION OF DIGITAL LEARNING GAMES

Serious Games

Project Description Model

Contributors

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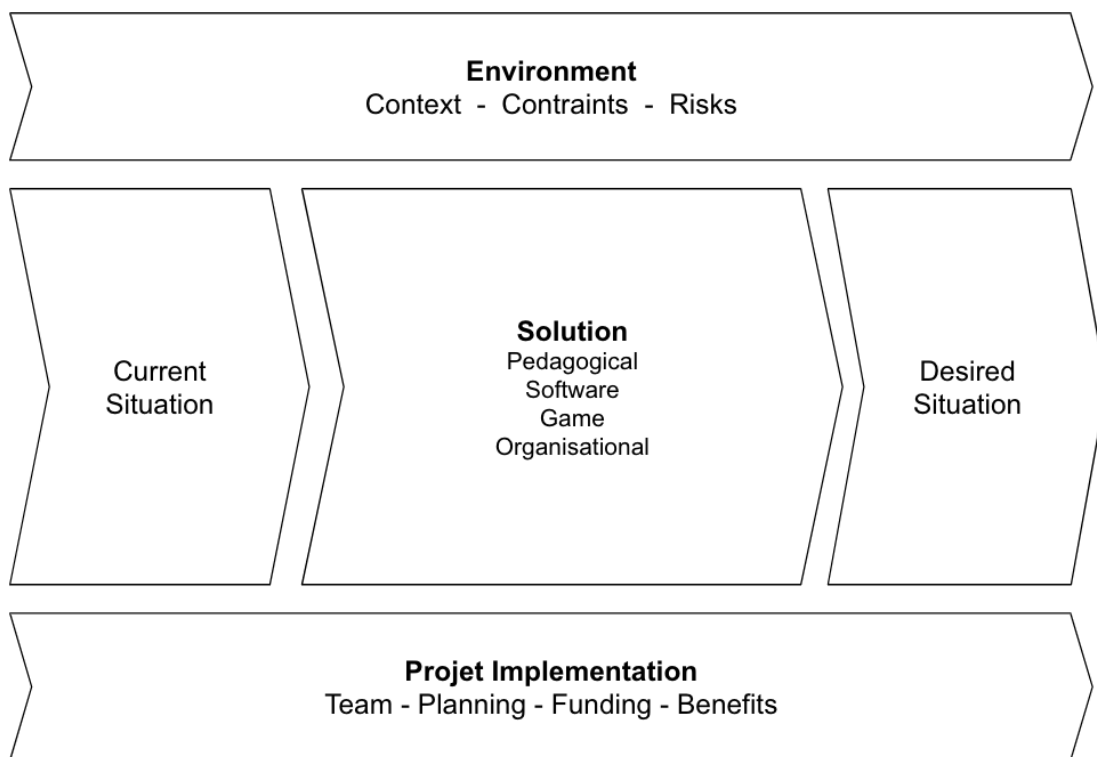
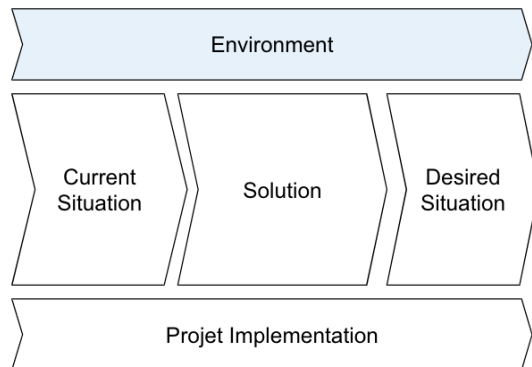**Publications Date**

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Project Description Model

This model is a supplement to the direct deliverables of the co.LAB project. Before moving on to the collaborative design of a serious game, it is necessary to set up the project and get it funded. The proposed model has been established on the basis of typical projects proposal chapters and adapted to the specific context of "serious games" projects on the basis of the contributors' experience.

An implementation of the model in the collaborative digital platform is being considered. It would allow the collaborative creation of the "project proposal".

Environment
Context - Contraints - Risks

Current Situation

Solution
Pedagogical
Software
Game
Organisational

Desired Situation

Projet Implementation
Team - Planning - Funding - Benefits

Environment

Definition of the context and environment in which the serious game development project takes place.

- Pedagogical context
- Course objectives (fixed or flexible)
- Study plan (fixed or flexible)
- Existing serious games, exercises, simulations
- Number of students

Technology and infrastructure

- All students have their own computer ?
- Wifi access
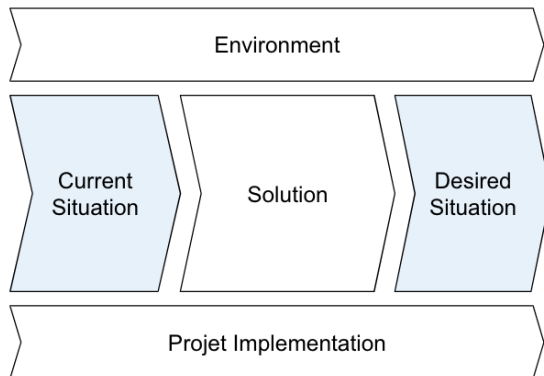- Rooms: auditoriums, group rooms, others

Social

- Support from department, school management
- Support, involvement of teachers, lecturers, assistants

Financial

- Existing sources of funding, support?

Other elements of the context?

Current and Desired Situation

Define the problem as a difference between current and future situations. How do you imagine these differences for the following aspects?

- Pedagogical
    - motivation
    - type of knowledge
    - ability to apply
    - soft skills / hard skills
    - teamwork
    - multidisciplinary
    - others
- Institution
    - Image, marketing
    - collaborations
    - research
- Finances
    - Operating costs
        - lab
   - virtual patients vs simulated patients
        - licences
- Others ?

Solution
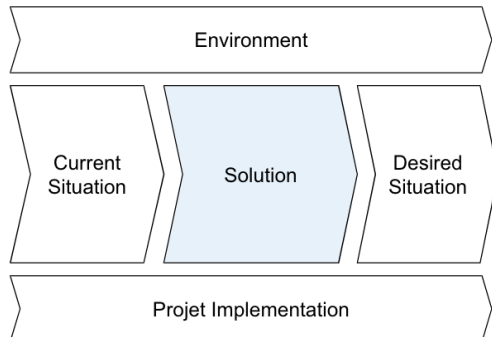
Define the solution as the mean to move from the current situation to the desired situation. At this stage, define a general concept which will be refined later.

- Define main pedagogical objectives
- Define learning functions of the serious game
  - o Prepare for future learning
  - o Acquire new skills
  - o Practice existing skills
  - o Develop learning or innovation skills
  - o Teamwork, collaboration, creativity, communication
- Define the way the serious game will be used
  - o Individual or in team
  - o Face-to-face and distance learning
  - o One or more teachers/modules
  - o Pedagogical approaches
    - ▪ Problem-based learning
    - ▪ flipped classroom
    - ▪ ex cathedra - exercises
  - o Integration into the courses
    - ▪ Introduction to the course
    - ▪ Lead-in to the course
    - ▪ Individual revision
    - ▪ Preparation for exams
    - ▪ Exams
- Define the serious game
  - o Mock-ups
  - o Features
- Define main expected benefits

Project Implementation
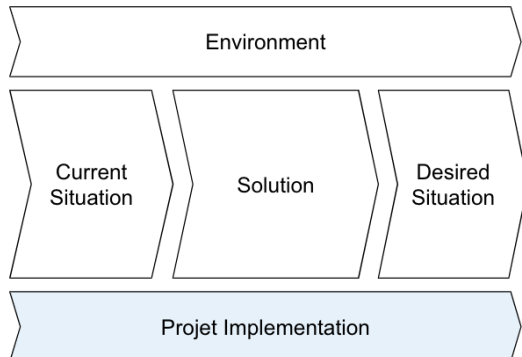
Define the needed elements for developing the solution

- Workpackages
  - Project Management
  - Global technological and learning concept
  - Learning Design
  - Game design
  - Game development
  - Tests
  - Assessment
  - …
- Estimate duration of workpackages
- Identify a Project manager
- Estimate the needed project team
  - Software solution
    - Computer scientists
    - Game designer
    - Graphical designers
    - User experience
  - Educational solution
    - Pedagogical engineers
    - Educational scientist
  - Content creation and test
    - Subject matter specialists
- Identify funding options
- General development process
  - Usually, propose an iterative process with progressive implementation