



SimAula Project- Learning Through Simulation And Excitement - Virtual Learning Environment - Mozilla Firefox

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SimAula Project- Learning Through Sim... +

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LEARNING THROUGH SIMULATION AND EXCITEMENT

NEWS

05th of September 2012  
Scientific forum on the topic: "Learning for Open Innovation ... Transformation and Change for Future Learning"

Conferences related with SimAula Project

Facebook Twitter

**Tomorrow's Teachers Training**



## The goals of the session

- to share the results achieved in the project and demonstrate the SIMAULA platform prototype
- to provoke a discussion on the potentials of immersive environments to support teaching and learning to live together



# Tomorrow's Teachers Training

- Acronym: **Simaula**
- Goal: To Design & develop an innovative ICT-based simulation environment for virtual practicum training of teachers and future teachers in their pedagogical skills
- Project funded by the Education, Audiovisual and Culture Executive Agency, Lifelong Learning Programme
- Participant Countries: **Spain, Italy, Bulgaria, Greece** and the **UK**
- Duration: **26 months** (1/11/2010 – 31/12/2012)



## SimAula – partner institutions:

| Organisation   | Type and expertise   |
|--|--|
| Indra Software Labs (Spain)                                    | Company. Engineering and IT consulting   |
| Fundacio per a la Universitat Oberta de Catalunya- UOC (Spain) | University. Expertise in the conceptualisation, design and development of virtual learning environments, including immersive environments            |
| Sofia University (Bulgaria)                                    | University. Educational technology, research methods, (e-)learning theory and Practice   |
| Università di Salerno (Italy)                                  | University. Purpose and contents of education and training processes; methods that characterize training procedures                                  |
| Coventry University. Serious Games Institute (UK)              | University. Serious Games  |
| Ellinogermaniki Agogi (Greece)                                 | Primary School. Methodologies and empirical research to investigate processes of learning and knowledge acquisition in various subject-matter areas. |



## Why Simaula?

**Bologna Process: increase the number of hours dedicated to teacher training**

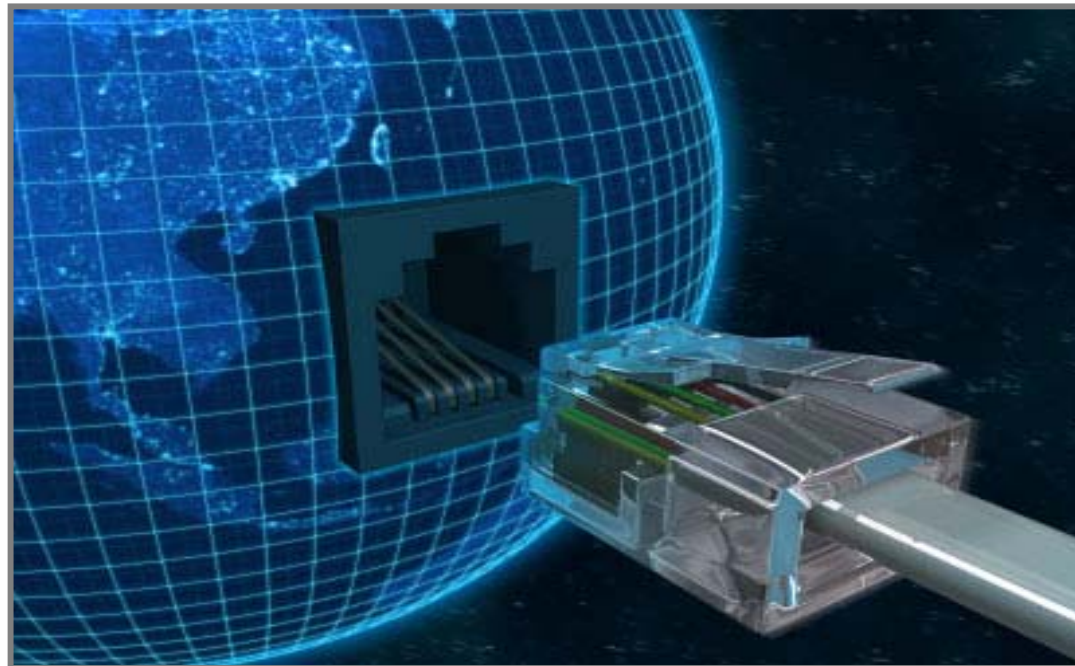






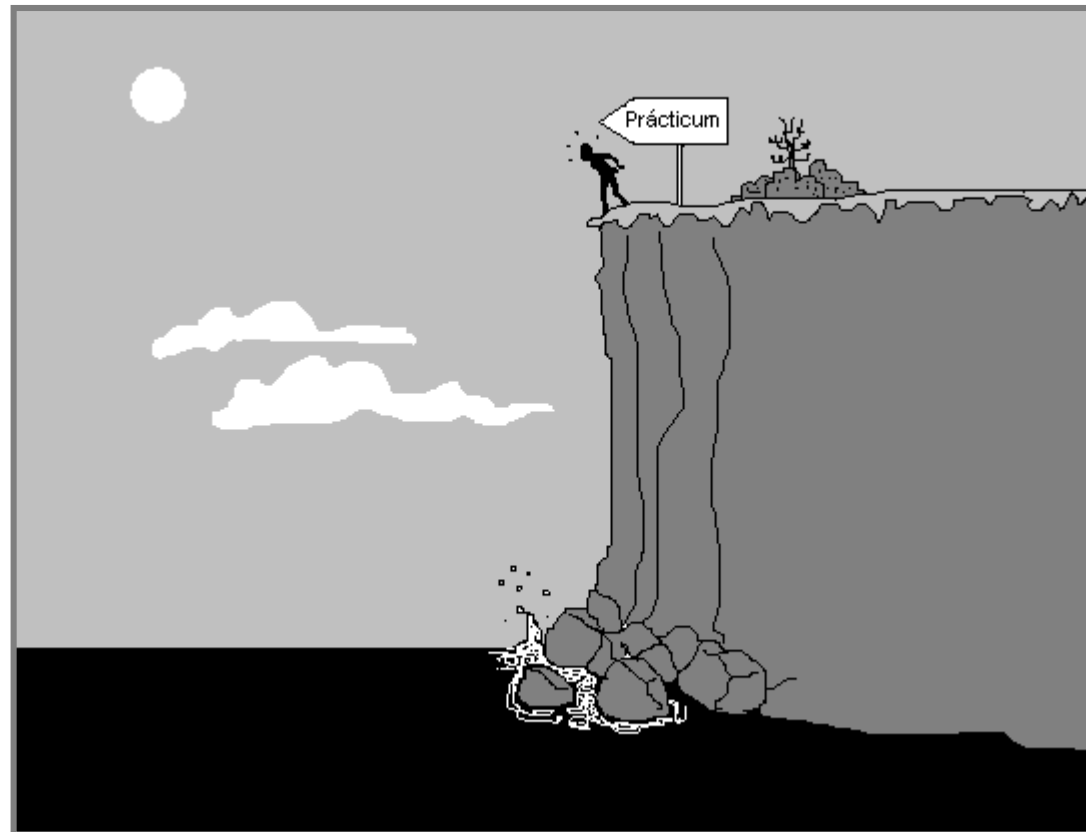
## Why Simaula?

**Bologna Process promotes innovative methodologies and use of new technologies**





# Why Simaula?





# Ethnographic research results



Difficulties with the application of innovative methods of teaching and learning.

Difficulties with the transfer of theoretical knowledge in practice.

Difficulties in the application of approaches and activities to promote individualization of learning.

Difficulties in helping pupils who are behind their peers.



Difficulties with the application of student centered pedagogical approaches. They avoid involving pupils in collaborative activities and don't provide them with choices during class activities.



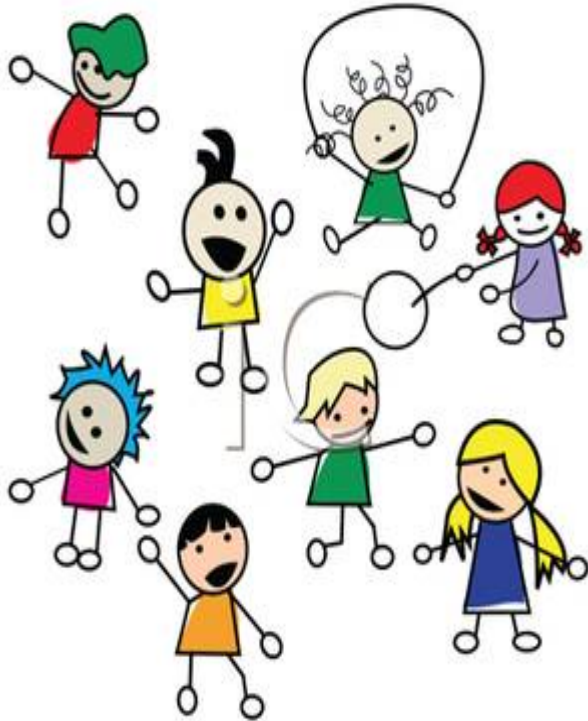


## Teacher training curriculum



- Part of the teacher training curriculum is dedicated to character education – through the subject matter, through role models, through teaching and learning activities etc.
- Objectives related to the shaping of the pupils' personality (behaviour, values and feelings) are embedded in the in-school practice plan for future teachers.
- In planning their lessons teacher trainees are required to set learning objectives and objectives related to the shaping of various personality aspects of the pupils.

# Ethnographic research results



➤ The priority objectives for students lay in the cognitive area and their main efforts are focused on teaching the curriculum.

➤ The value aspects of pupils personality development are **NOT** in the focus of the practicing students when teaching in the classroom.

➤ Objectives related to the students' values forming appear to be the most difficult to implement in practical environment.



## SimAula as an environment for acquisition of role models supporting forming values in the classroom



- 1 An appropriate selection of educational content and good examples of core human values.
- 2 The design of the physical parameters of the classroom environment and by providing students with different choices – bearers of different values.
- 3 Through personal examples and role models by the teachers – SimAula can present a wide selection of behavioural role models.
- 4 The personal relationships with the avatar-students (in groups and individually) which can be designed or selected by the teacher trainees.
- 5 Through mediation of students' communication – by selection of appropriate learning activities, requiring collaborative work.
- 6 Through the possibilities that the virtual environment provides for reflection of the sequence and consistency of the selections of the above-mentioned teaching and learning elements, as well as for the evaluation of success/failure of these selections.



# What is Simaula?

Simaula is a computer simulation and virtual 3D environment to train pedagogical skills of teachers and future teachers.

The platform replicates typical situations where teachers will face common problems that happen in the classroom. Users have to select different strategies to deal with the problems.

Teachers-to-be could practice their teaching and classroom management skills within a fun and safe educational game environment.





# About Simulation as a training tool







## SOME OF THE KEY BENEFITS FROM LEARNING THROUGH REAL LIFE SIMULATIONS PROVED IN THE PRACTICE

- It allows experimenting different roles and strategies in a safe environment
- It allows trainees to go over the same situations, settings, contexts multiple times in a low-stress environment
- Promotes experimentation with various techniques and allows meeting learners' individual needs, interests, and abilities
- Supports the transfer of acquired knowledge and skills from the controlled educational setting to the real unpredictable classroom
- Simulation environments provide the opportunity for development of professional skills and their transfer to new settings and contexts
- Supports the development of trainees' confidence and increase their motivation
- Supports learning in multimodal ways



# How does Simaula work?

1 - Stage of lesson planning -  
selection of various  
components



2 – Stage of playing the game -  
teaching in a virtual classroom

The teacher avatar – controlled by the practicing  
student

Pupils avatars – behavioural models are pre-designed  
and controlled by the computer.

Future teachers interact with pupils (avatars) who  
automatically react to the teacher selection of  
teaching strategy, resources, duration of the  
activities, behaviour model.



3 - Stage of reflection and  
students' assessment



# Now, a Demo of Simaula





## The potential of SIMAULA: training scenarios





## Which features should successful Serious Games like SIMAULA incorporate? (1/2)

- Customizable learning scenarios
- Reducing the need of physical presence in the classroom
- Interoperability with other training systems
- Different types of teaching contents and goals
- Student avatars but also real students





## Which features should successful Serious Games like SIMAULA incorporate? (2/2)

- Increased complexity of student avatar behaviors
- A collaborative platform
- New teaching strategies
- Multiplayer mode
- Open Source
- Enhanced Artificial Intelligence modules





## Some examples... (1/2)

- Creating specific scenarios
- Viewing the best practices
- Working on interculturalism
- Including 'singular students' in classroom
- Exchanging best practices among teachers

∅



## Some examples... (2/2)

- Playing with pedagogical strategies created by teachers
- Training for teachers who live in remote locations or are unable to travel to placements for work or health-related reasons
- Avoiding the risk that taking certain decisions in the classroom entails
- Training teachers around the world
- Assessing the performance of teachers in training

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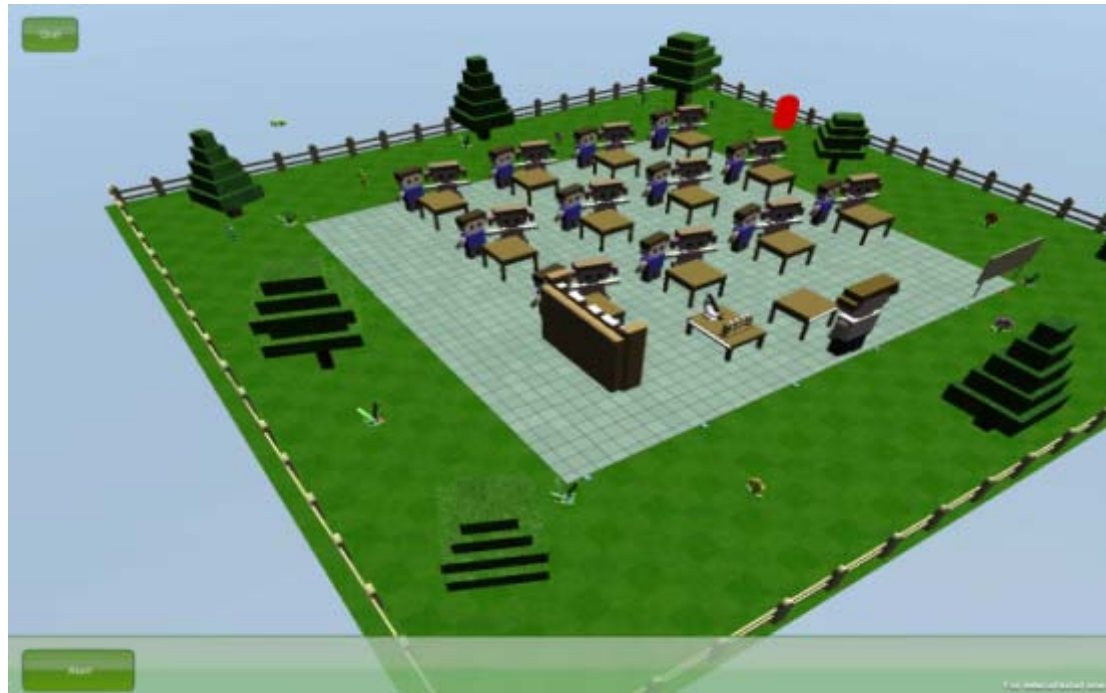
# Project situation

- Defined all user requirements
- Designed the Class model, Student Model and Pedagogical Model
- Ended the software development
- Prototype ready to be evaluated by end-users





[www.simaulaproject.eu](http://www.simaulaproject.eu)





## Organisation



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Thank you for your  
attention!

*This presentation has been developed with the financial support of the European Commission, project: REF: 511472-LLP-1-2010-1-ES-KA3-KA3MP-simAULA. This publication reflects the views only of the authors and the Commission cannot be held responsible for any use which may be made of the information contained therein.*





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