

TITLE OF THE SCENARIO	The origins of quantum physics		
Keywords	Physics, quantum physics, History of Science		
To whom do I want to teach?			
Age Range and grade of the learners	Students in 2nd year of non-compulsory secondary education, specialization in Science (17 – 18 years old)		
Learner special characteristics	Students enrolled in a Physics or Chemistry course		
What do I want to teach?			
Learning subject / field / skills	Physics, Chemistry		
Specific Goals	To teach about the experiments that led to the discovery of Quantum Physics		
How do I want to teach?			Rate 0-5
Learning metaphor that can support the learning objectives	Acquisition (I will transmit / present / explain content to the learners)	☑ ☑ ☑ ☑ ☑ ☑	
	Imitation (I will show to the learners how to do things related to this subject / content, i.e. I will be a model for them)	☑ ☑ ☐ ☐ ☐ ☐	
	Discovery (I will provide the necessary artifacts for the learners to find out / discover a specific concept / knowledge on their own. I will organize guiding activities and provide tips)	☑ ☑ ☑ ☑ ☐ ☐	
	Participation (I will organize sessions in which learners will discuss, share and / or collaborate for learning a specific subject / content and I will facilitate the interaction between them)	☑ ☐ ☐ ☐ ☐ ☐	
	Experimentation (I will organize activities in which learners will understand, learn how-to, practice, and / or exercise)	☑ ☑ ☑ ☐ ☐ ☐	
Description of the game	Narrative description of the game plot	The protagonist has to help scientists to carry out experiments, by bringing them the needed reports and materials.	
	Goals	To give the conclusions of the experiments to the director of the Research Centre.	
	Characters	The director of the Research Centre, the responsible of the storage room, two scientists.	
	Scenes	The director's office, the library, the storage room, the corridor, two laboratories.	
			Learning settings
			Estimated Time
Narrative Description of learning activities - step by step organization and structuring	Before the game: None.	--	--
	During the game: Make connections between the results of the experiments and the conclusions from Quantum Physics and the atomic model of Bohr.	In the classroom	1h
	After the game:	At home or in the	1h

	Students will run a simulation of the experiments.	classroom	
			Total: 2h
How will I evaluate students?			
Evaluation approach	Discussion in the classroom on the conclusions		
What will learners need in order to achieve learning objectives?			
Prerequisites	--		
Settings and materials	--		
What do I need for implementing the scenario?			
Applications involved	Mandatory	* <e-Adventure> * Java	
	Optional	--	
Infrastructure / equipment	Mandatory	* Internet connection to run the simulations. If the connection is not available, the simulations can be downloaded in advance. * One laptop per student	
	Optional	--	
Otros aspectos a considerer			
It could be used as homework and used in the following lesson. The teacher can also play during the lesson and ask about what is needed and why. He / she could also discuss the conclusions from the experiments.			