



UNIVERSITÀ  
DEGLI STUDI  
DI PADOVA

HORIZON EUROPE  
PROJECTS FUNDED AT THE UNIVERSITY OF PADOVA

**EduGames - Play to learn: ludic video games and interactive experiences to improve critical and computational thinking skills**

This project investigates the use of primarily ludic video games and interactive experiences aimed at transferring skills within the Critical and Computational Thinking skill sets – e.g., literacy, numeracy – using gameplay as opposed to presentation. This niche of products is under-researched, compressed between serious games and purely ludic games, and suffers from a lack of systematic design and evaluation guidelines. The main objective is to define a framework of design and evaluation principles for the development of video games and interactive experiences with education and skill transfer in mind, and to explore the role of ludic technologies in education. I will design, develop, and experimentally evaluate a series of video games and interactive experiences based on specific skills drawn from the Critical and Computation Thinking skill sets. I will engage with domain experts in the chosen skills to identify the best ways of transferring these skills through gameplay. The design process and evaluation methodologies will contribute to the definition of a framework of design and evaluation principles (main objective) which I will publish at the end of the project. Throughout the project, I will publish results from the individual design and experimental phases. I will create a network of industrial partners – i.e., video game developers, museums and cultural institutions – for commercial exploitation and potential future collaboration. This project is relevant because it addresses the social problem of improving numeracy and literacy skills through the frameworks of Critical and Computational Thinking, which is part of the EU's policy in the field of adult learning. The use of ludic video games and interactive experiences broadens the target audience to include younger demographics, thus potentially delivering a larger impact that could have long-term effects on an engaged individual's education and well-informed participation in public life.

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**Find out more:** <https://cordis.europa.eu/projects/en>