

Lost in Time

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Gaming has become a huge part of teenagers' time consumption, and in many cases, it has started to affect their lives. In addition, learning is considered to be an obstacle, boring process for the majority of students. Game-based learning still faces major problems in terms of practice as the imbalance between learning and entertainment. Also, adolescents do not find games targeting their gaming preferences to learn from. This study will focus on learning physics, which is perceived as a hard subject according to previous researches' results. Building a story-based adventure-survival videogame called "Lost in Time" with a simulation where players can enjoy the game's thrilling story and learn advanced physics easily in the process, was the suggested solution. It targets students—especially of ages 13–16 years—and offers them an experience with their gaming preferences, using unreal engine 5 for development, exploiting their gaming skills, and enhancing their learning outcomes. A sample of students were asked to play the first part of the game, a questionnaire was conducted, and the resulted data was analyzed. Dual benefits were achieved: (1) Introducing physics as an interesting subject by implementing and explaining its laws throughout the players' journey, to understand and complete the missions. (2) Utilizing serious gaming techniques—preferred by many students at different ages—in meaningful challenges. This may help in developing high order thinking skills that will be reflected on their learning outcomes, without either affecting the game's entertainment level or wasting their time and exploiting it for greater causes.