

Gamification in higher education, the experience at ULPGC

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EXTENDED ABSTRACT

One of the 17 Sustainable Development Goals established by the United Nations in its 2030 Agenda is to ensure inclusive, equitable, and quality education, as well as to promote lifelong learning opportunities for all [1]. In this context, active methodologies, which focus on the student and their learning process, are gaining popularity and have been shown to offer more effective and higher-quality education [2,3]. University professors, aware of this shift, are seeking strategies to strengthen students' emotional and behavioral engagement in the classroom, with the goal of improving learning and enhancing academic performance. Providing university students with an educational experience that is not only effective but also engaging and meaningful presents a significant challenge for educators. One strategy that has been increasingly successful in achieving this goal is gamification, a term coined in 2002 by video game developer Nick Pelling. This technique involves incorporating game elements and dynamics into non-game contexts [4]. In recent years, gamification has experienced remarkable growth in education due to its ability to motivate and engage students more effectively [5]. A literature review conducted by [6] highlights the growing interest within the scientific community in researching and proposing gamification projects in higher education. This review also underscores a positive predisposition among students toward the implementation of innovative learning experiences that include gamification. At the University of Las Palmas de Gran Canaria (ULPGC), various gamification initiatives have been implemented as part of educational innovation projects, aiming to provide more motivating and enriching learning experiences in several Faculties, such as Education, Marine Sciences, Engineering, and Nursing. These initiatives have involved more than 1,000 students and have utilized tools such as Kahoot, Quizziz, and Wix to design and assess gamification activities, complemented by additional resources such as Educaplay and Powtoon for creating game dynamics. The results show a clear increase in students' motivation, participation, and engagement with the subjects, highlighting the importance of gamification and educational games in teaching. These methods not only improve student motivation but also help reduce monotony by presenting learning content in a more entertaining and effective way. The impact of gamification in the educational field is broad, affecting students in different ways: behaviorally, emotionally, and cognitively. Additionally, when students' perceptions of previous gamification experiences in the classroom have been studied, it has been found that, overall, they enjoy participating in these activities and consider them valuable for their learning [7,8]. Other studies have demonstrated that students prefer the application of gamification to learning content over traditional classroom approaches [9,7]. However, gamification represents a significant challenge for education, particularly within higher education institutions, where a careful approach to its successful implementation is required [10].

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