A gamification strategy in engineering education—A case study on motivation and engagement

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Abstract

Classical teaching–learning methods have been widely used in higher education. However, current teaching and evaluation methodologies are incorporating dynamic techniques that allow greater student participation in the learning process. It is essential that the classic model of education adapts to the changes in society and uses proper tools to encourage motivation in the education process. Gamification approaches generate motivation in the students and can lead to enhance the learning processes and outcomes. These strategies offer an alternative that is being used increasingly in higher education. Therefore, in this study, we developed a gamification strategy to generate motivation and engagement in engineering students. The strategy is applied in different courses and both in traditional and remote modalities. The validation of the proposal was carried out through a diagnostic tool in the form of a survey applied to the students of the courses where the gamified strategies were implemented. From these results we concluded that the gamified strategy helped to increase the motivation and engagement of the students, generating greater participation in the academic activities.

Keyword

Education, Engineering, Gamification, Learning