IS Pedagogy 2.0: Gamification Approach

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There is a national crisis in the education sector in terms of student retention and engagement. Only 19 percent of students graduate in four years at non-flagship universities and 36 percent in flagship research universities (Bidwell, 2014). This indicates that academic programs need to revisit their curriculum and examine why students stay longer than expected in college. Investigations into the reasons responsible for this low retention rate report that students are not fully engaged in the courses, while others fail to see the affective value of what is being taught in IS courses (Zepke & Leach, 2010).

Research suggests that education in the information age should provide technological familiarity and foster communication among learners while providing literacy in a field of study (Beekman & Beekman, 2011). As such, researchers and educators are on the quest to understand gamification and its potential in promoting engagement (Zichermann & Cunningham, 2011). Gamification is defined as the use of game elements in non-game contexts such as learning environments to modify learners’ behavior (Zichermann & Cunningham, 2011). The development of gamified courses adapts game elements such as leaderboards, points, badges to encourage participation and stimulate competition among learners while developing necessary problem solving skills (Burke, 2014). In the learning context, the goal of gamification is to promote learning behaviors that are effective in challenging and expanding the affective and cognitive capacities of learners.

Gamification has proven to be effective in supporting business processes in e-commerce, healthcare and academic settings (De-Marcos, Domínguez, Saenz-de-Navarrete, & Pagés, 2014). Moreover, preliminary studies suggest that students have a positive attitude toward the gamification of their classes especially as it concerns implementations that will foster social interaction, engagement, feedback and increased learning (Cheong, Filippou, & Cheong, 2014).

Given the problem faced with IS recruitment and retention, gamification presents an innovative pedagogical approach to address these issues and foster both academic and relational engagement for students. We therefore propose the integration of gamification into the IS pedagogy to enhance education of IS while engaging students in the learning process. Although results on the use of gamification are mixed in learning environments, it is evident that gamification enhances performance, engagement, learning, attitude changes, and motivation. The objective of this research is to systematically develop course modules with triggers that are implemented via game elements to monitor student learning progress and adaptively introduce interventions to sustain student engagement. We seek suggestions on theoretical foundations for the development and implementation of our approach.