

## **Making sense of student engagement in a technology mediated gamified course**

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This empirical study examines how the development of a technology-mediated, gamified course, Personal and Professional Development, influences student engagement and course performance.

For the gamified course, in addition to weekly classroom teaching, students participated in a two-tiered system with online *Essential Learning* (EL) and *Super Learning* (SL) activities based on Moodle. Data were collected from 166 students in academic year 2015-16. Evaluation of the course effectiveness revealed solid evidence of student engagement, as engagement in online learning activities (measured by view count per activity) was higher in the gamified condition. Also, there was a significant, positive relationship between online learning engagement and course performance controlling for gender, class attendance, and prior performance.

Further analysis suggested that there were additional layers in the student engagement process beyond what was expected from the gamification intervention. When measuring for actual completion date of ELs, we found that students often completed ELs beyond the originally set deadlines of completion, a phenomenon mostly linked to students with jobs who exhibited a strong tendency towards late completions of ELs compared to students without jobs. Not only students in employment completed more online learning activities than students without jobs, but they also did it out of synch with the competitive nature of the gamified system indicating that while the gamified system was helpful in getting students on board the EL/SL learning activities it was the features of autonomy and flexibility of online learning that attracted this particular learners' group towards the gamified system.

We conclude that improved student engagement was due to the gamified system; however, it was not only because the gamified system was playful but also because it was designed in a way that the students could engage with it in a longitudinal manner and at their own terms.