Operation Graduation Gilbert and Whole Student Success

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Student engagement, performance, and retention in online education is a major concern for school administrators (Allen & Seaman, 2014). One suggestion for improving student performance and retention in online classes is to create more engaging course shells that reflect the interests of the students and create opportunities for social interaction (Hammer, 2011; Jaggers & Xu, 2016; McInnerney & Roberts, 2004). "Operation Graduating Gilbert" (OGG) is a gamified online psychology course shell developed as part of a larger grant to improve engagement and performance of at-risk and minority students. The main feature of the class is a strong narrative structure featuring a multiethnic cast of characters embedded with educational elements that encourage the growth mindset and familiarize the student with campus resources. Group activities, as well as a gamification element, are also included to increase student engagement and provide opportunities for social interaction.

The course shell is structured around a narrative that follows Gilbert and his multicultural cast of roommates as they face the typical challenges of being Wake Tech students. Each week's "episode" contains a school-related challenge for one of the characters that frames the week's activities. The weekly discussion activity and homework relate to the narrative, with the homework typically being an application of the week's content to help solve the challenge. To encourage collaboration among students, several of the weekly homework assignments are group activities. Each week's game episode focuses on a different challenge or growth opportunity for Gilbert or his friends, with the intent of demonstrating the growth mindset within the context of a common student challenge (Dweck, 2006). Students are asked to engage in regular self-reflective journal activities related to these growth mindset themes. Finally, to engage students with the larger campus, a Wake Tech campus resource are embedded in the weekly narrative allowing the modeling of desired activities using the cast of characters. Links to these resources are included with the narrative, as well as suggestions for using them.

A voluntary gamification element is also included in the course shell, with both individual and group achievements for students who choose to participate. In this game, students are spies called "operators" that work fighting against the agents of S.T.R.E.S.S. (Society to Ruthlessly Endanger Student Success). Students collect individual medals by completing course activities, and build individual rank as they accumulate more medals. Since supraordinate goals help foster a sense of group cohesion (Sherif et al., 1961; Gaertner & Dovidio, 2000), a group achievement is also included, requiring the cooperation of all students to help "Gilbert Graduate". Each week the class as a whole meets a performance standard, Gilbert moves one step closer to graduation. Feedback is provided to the class in the form of a "status report" that tells the students how many steps toward graduation Gilbert has achieved. To support Universal Design for Learning (UDL) principles, all of the gaming elements are color coded blue, so that students who do not prefer to learn through games can bypass this option.

What is interesting about this approach is the layered multiplicity of learning that is providing, from the explicit content mastery and application that occurs in the typical online class, to more implicit self-referential learning as the characters model growth mindset behaviors and use campus resources in situations similar to those the students taking the class will face. Even the game goal models the growth mindset as students must push Gilbert incrementally toward graduation each week. Hopefully, OGG will serve as a model for other instructors who want to introduce narrative structure and gamification to their course shells.

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Acknowledgements

This material is based upon work supported by US Department of Education grant no. P116F150082. The author would like to acknowledge the efforts of the instructional development team, without whom this project would not have been possible. Thank you Shelley Evans, Cynthia Bowers, and Sarah Rothman!