
The Game of Writing: Gamification and Social Commenting in Writing Instruction

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How can we test gamification and social learning in online writing environments? This poster will demonstrate an online writing environment, GWrit (Game of Writing), where students can comment on each other's writing and where they get rewards for task activity in a cooperative environment (gamification in this instance is not competitive). The application of game-based learning strategies to teaching writing shows promise, with one study reporting that their role-playing game improved the quality of student writing (Wang, Chen, Chang & Chan, 2016). GWrit has been developed by a cross-disciplinary team of academics and programmers at the University of Alberta over the past three years and has been used with over 1000 students.

This poster/demonstration brings together research on GWrit from the following perspectives: gamification, social-network influenced peer review, and the task completion structures. Our research will be summarized on the poster and we will demonstrate the environment during the poster session.

Gamification. Deterding (2011) defined gamification as the use of game elements and game design techniques in non-game contexts to engage people in solving problems. Gamified environments

employ a number of mechanisms to encourage people to engage with them (Dicheva et al., 2015), and existing studies prove that gamified learning environments create deeper engagement of students (Barata, Gama, Jorge & Gonçalves, 2013; Fitz-Walter, Tjondronegoro & Wyeth, 2012). Our gamified environment has many "surface" (award trigger systems, competitive environments, badges, and ranks) as well as "deep" gamification components (task completion structures, social commenting support, public posting of draft documents).

When demonstrating GWrit we will first introduce the way the system was designed to support experimenting with commenting and gamification, and then show the gamification rule editing environment we developed. Our working hypothesis was that users want information about what they are doing and that gamification can be a playful way of representing that information back to the users so that they can make decisions and possibly be motivated differently.

Social-network influenced peer review. Social networking has also been shown to have a positive influence on students' academic learning (Tian, Yu, Vogel & Kwok, 2011; Tsuiying, 2016). Within GWrit we provided an environment where students have the opportunity to both read and then comment on each other's drafts, a technique that has been shown to improve writing (Schunn, Godley, & DeMartino 2016; Ion, Barrera-Corominas & Tomàs-Folch, 2016). Reading skill is directly linked to writing improvement, particularly if students are reading texts similar to the texts they are trying to produce (Hansen, 2013). GWrit allows students to post drafts of their documents for review and comment by other students, peer tutors, and graders. The writer of the draft can respond to each comment, and they are also likely to reciprocate by reading and commenting on the drafts of the students who gave them comments. Micro-networks of comments sprout up within the comments on these texts. Because students in the writing course version of GWrit have the option of working on one of three different assignments in each module, larger, informal networks of students who are working on the same assignment also coalesce. The writing course version of GWrit has four main three-week long modules with a choice of three assignments in each module; the social networks re-form at the end of each module. Our early assessments of students and commenting in the writing course confirm what others have reported: that peer feedback is as valuable as

instructor feedback (Guasch, Espasa, Alvarez, Kirschner 2013).

Task completion structures. Third, the poster will deal with the role task completion structures play in motivating learning. GWrit incorporates three task completion structures to help students: the course completion fuel gauge, a task list, and assignment deadlines. All three of these task completion structures were used in WRS 102 in winter 2016 term and the first and the last structures were used in fall 2015 term. The data on the task structure from a course survey will be shown and discussed in the poster.

In our discussion of the research on the poster we will summarize interview data on why we think the various aspects of the system work, which areas we think need to be improved to work better, and how we intend to transform a curriculum-based tool (the course-based version of GWrit) into a free-standing, web-based site.

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