Collaborative creativity among undergraduate students as game creators during gamification in a university-wide elective course

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Abstract

Collaborative creativity is an essential skill for unleashing university students' skills in team building during complex problem-solving. The aim of this descriptive quantitative research was to examine undergraduate students' perspectives regarding their collaborative creativity experience as game creators for a gamification group assignment within a university-wide elective course on learning disabilities. The Assessment Scale of Creative Collaboration (ASCC) questionnaire was completed by 14 students. The results provide insightful perspectives by undergraduate students regarding their experience in collaborative creativity during game creation. The findings from the closed-ended questions of the ASCC demonstrate that most of the students valued the diversity of knowledge and skills of their team members, shared different ideas, adapted their ideas and practices according to the project difficulties, trusted their team members, co-constructed the game together, overcame conflicts in positive ways, developed multiple versions of their game, and coordinated well for their team project. Data from the open-ended questions of the ASCC, which provided detailed but nuanced perspectives of the students, were analysed thematically. Three main themes were identified: the positive aspects of gamification, the constraints related to the gamification project, and teamwork and collaborative problem-solving approaches. This study provides evidence on the feasibility of game creation that is embedded within gamification group projects for fostering collaborative creativity among undergraduate students.

Gamification has the potential in supporting the acquisition of 21st century learning and innovation skills in higher education. Implications of the application of gamification in higher education are discussed.

Practitioner Notes

1. This study provides preliminary evidence on the feasibility of making game creation accessible to students. This study also supports educators wishing to embed gamification and game creation by students in the course assessment.

2. The undergraduate students reported positive responses about their game creation experience during the gamification project. However, teamwork could be an issue to be addressed more proactively. In this study, one of the students reported that bad teamwork had affected her gamification project although she felt the gamification was a good pedagogical approach. Thus, facilitators should provide the necessary guidelines on effective collaboration, communication, and teamwork approaches to students early in the semester.

3. Most of the students reported that time limitation was a factor in game creation. None of them had expected that an elective course would be so demanding on their time. A possible reason for the lack of time is the unfamiliarity of students with game creation. Given the promising value of gamification and game creation, we suggest that at the macro level, the university elective course committee could identify how innovative pedagogical approaches could be aligned. Specifically, gamification and game creation could be used more widely across university-wide elective courses to reduce the learning curve involved. At the micro level, instructional videos on gamification and game creation may ease the process of learning about the concept and implementation of gamification

and game creation.

Keywords