**Gamification to increase participation in maths practice quizzes in Level 1 Engineering modules**

Zahra:

Hello, I am Zahra Golrokhi.

Silvia:

And I am Silvia Varagnolo. We are both lecturers at the School of Engineering and Innovation. Our eSTEeM project is about gamification to increase participation in math practice quizzes in level one engineering modules. The broad aim of the project is to improve progression and retention of students in the engineering qualifications by strengthening their math preparation through practice.

The context of the project is T192, the first module in the engineering qualification, which includes weekly practice quizzes but students’ engagement with them decays on in time. So, we are going to try gamification on six out of the 14 quizzes in T192 where with gamification we mean the application of game elements or a

game framework to existing learning activities.

Zahra:

In this case, the existing learning activities are the Moodle quizzes. The game elements are an eye-catching introduction to the quiz with an image of a postcard and a reward gain after the successful completion of the six selected quizzes. On completion of each quiz, the students receive a token and after collecting all the tokens the students receive a digital badge. In addition, the students will receive conditional feedback according to their scores. This feedback is in any case motivating the student to practice more math.

We will evaluate the effectiveness of this gamification post math practice in different ways. We've applied the gamification to the T192 25D presentation, which has started this April, and we are now looking forward to collecting the

data. We hope that this approach effective for students’ success in math through practice. If so, we would like to extend the same approach to other level one engineering modules and possibly other modules beyond engineering.