

CETL-MSOR Conference 2015

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Introduction and overview

In 2014/15 a pilot project within the Faculty of Science, Engineering and Computing at Kingston University used “clickers” for a novel monitoring and engagement process, aiming to encourage in-class engagement and attendance. We will briefly describe the project and its rationale, present some findings from initial evaluation and focus groups and finish with some general recommendations for future practice that are potentially applicable beyond the pilot project.

Background

Student progression data show that the majority of those who fail to progress do so in the first year. They also show significantly different levels of attainment across different groups. The challenges of transition from secondary education to university are underestimated by some students; they fail to motivate themselves to work early enough, fall behind and stop attending. Ultimately the hurdle can become too high to overcome, resulting in failure and withdrawal from studies.

The engagement pilot project

The project aimed to monitor academic progress and attendance of all 1st year mathematics students using an in-class response system. In the pilot, TurningPoint electronic voting system (EVS) “clickers” have been adopted and individual clickers that uniquely identified each student (linked to their ID number) were issued. Staff involved in teaching these students were trained to use the voting system in every appropriate classroom session (predominantly lectures).

Students were required to bring their clickers to each timetabled session and were informed that their attendance was being monitored thereby. However, the positive learning benefits of the system were also explained to the students: Each week the clickers were used to give short, formative quizzes at the start of class or during the session, if the lecturer adopted a more active learning style, as appropriate to the lecture. The quizzes were designed to recapitulate material previously delivered, to encourage continuous engagement and to assess student learning, thereby allowing students to gauge their own progress.

The project allowed the evaluation (at least at a coarse level) of attendance and engagement across different groups of students (according to entry level qualifications, age (to monitor mature students) and ethnicity/socio-economic status). It also offered the opportunity for referral of students who were identified with low levels of attendance for counselling.

Results, recommendations and future directions

The pilot project highlighted issues with software, infrastructure, methodology, student and staff behaviour etc. which we would like to share and discuss with

colleagues. We would also like to present outcomes from small student and staff focus groups that aim to assess perceptions of the project from 'both sides' as well as engagement with it. For example, students have expressed ambivalent feelings regarding the use of the clickers for attendance monitoring but are generally positive when the clickers are used to promote active learning. Staff have noted that the clickers seem to improve the engagement of students in lectures (particularly perhaps if some aspect of competition is manifested) but that the introduction of clickers has not in itself led to significantly higher attendance than in previous years.