Student Engagement
Kahoot: School of Sport and Exercise Sciences

Background
Some lecturers who want their students to participate actively in both lectures and/or seminars are using audience response technologies to check understanding, stimulate discussion and engage their students. With audience response technologies, the lecturer will typically pose questions to their students and allow students to respond, in realtime, using a proprietary voting device or mobile device. The ubiquity of mobile technology offers many possibilities for further exploring the use of audience response technology within learning and teaching. Indeed, there are a number of software-based solutions available that utilise the student’s own mobile device to help the lecturer engage their students.

The Challenge
Within the School of Sport and Exercise Sciences, module evaluations for the Stage 1 Sport and Exercise Psychology modules (SS312 and SS344) indicated that students would like more support for their assessments, which are in the form of multiple-choice and short answer questions delivered through Moodle quizzes. In addressing this, the teaching team, Dr Carla Meijen and her research associate Stephen Earl, felt that more could be done within lectures to provide formative feedback to their students. Dr Meijen commented that students consistently bring electronic devices into the teaching rooms and so they explored ways in which this could be embraced and used to support assessments on the modules.

Innovative Solutions
Having evaluated several alternatives, Dr Meijen decided to introduce an audience response technology called Kahoot (www.getkahoot.com). The aim of Kahoot is to make learning interactive and engaging. During a session, students are posed questions and can respond in realtime using their own electronic device (smartphone, tablet or laptop). On the teaching PC, the lecturer is able to see the students’ responses as they come in and can choose, if they wish, to display these responses to the class. Kahoot features a leaderboard, awarding points to students with the correct answers and to those who answered quickest.

Dr Meijen believes that the leaderboard feature helps to promote engagement as it introduces an element of competition into the learning and teaching process. Indeed, as Dr Meijen points out, games and competition can benefit student engagement as individuals can be motivated in two ways; by a desire to improve on scores from previous lectures or by direct comparison to other students in their cohort. As Dr Meijen explains, this methodology therefore supports both mastery-focussed and performance-focussed approaches to learning.

In practice, Dr Meijen used Kahoot by running short multiple choice quizzes, usually six questions in length, based on the content of each session. From a teaching perspective, the Kahoot questions were designed to help reinforce the essential learning outcomes of each session and to give the teaching team an indication of how well the students had grasped the
material. It also provided an opportunity for the teaching team to go through each answer and provide an explanation as to why an answer was correct or incorrect. As Dr Meijen points out, given that the modules were partly assessed by multiple choice tests in Moodle, Kahoot provided students with weekly preparation for the assessment throughout the duration of the module.

Outcomes

Dr Meijen notes that there was been an increase in the multiple choice test scores from previous years, and that the overall mark for the in-class test for SS344 increased to 61.9 (SD=18.9) in the 2015/16 academic year compared to 53.6 (SD=15.2) in the 2014/15 academic year, with more students achieving a 2:1 or 1st class mark. Dr Meijen also notes that the use of Kahoot appears to have facilitated a greater degree of concentration and motivation during sessions, which is particularly evident in the early stages of the module. Indeed, as Dr Meijen observes, the students seemed to want to understand the material so they could do well in the Kahoot quiz at the end.

In addition to this, Dr Meijen observed another benefit to this particular technology; some students would often not have a mobile device and therefore were actively encouraged to work in groups. The teaching team felt that this worked to an advantage as it aided group work and student relatedness - offering ice-breaking possibilities in the early stages of a module.

After using it for two terms, Dr Meijen believes that Kahoot has helped with student engagement and in providing formative feedback to students. Indeed, as the teaching team observed, in previous academic years students would often be generally disengaged at the end of a lecture, however, with the introduction of Kahoot, the students were engaged until the very end, waiting for the Kahoot quiz to commence. The teaching team also noted the inclusivity of the technology, in that there was a different winner every week, and that these winners came from different groups of students. Typically, when asking questions to students in a lecture theatre, the same students tend to raise their hands and answer the question. For Dr Meijen, what this helped to demonstrate was that a wider range of students were engaged beyond those that she was aware of.

Future Plans

Overall, the teaching team feel that the use of Kahoot has added value to their teaching and has helped to engage a larger group of students. Although the teaching team did not use Kahoot directly in seminars, they believe that in future it may be beneficial to incorporate this methodology into seminar sessions to encourage students to work together on particular tasks.
The Key Points

Learning and teaching potential
Checks student understanding and comprehension
Encourages student engagement with taught material

Risks
Not all students will have an electronic device
Overuse of the technology can lead to disengagement

Support implications
BYOD initiatives may require additional support due to the number of devices in use (i.e. accessing WIFI, accessing Kahoot, using the platform)

Costs
Low. Kahoot is free to use. Time is required to pre-prepare quizzes, however