DAVETLİ KONUŞMACI ÖZETLERİ
[INVITED SPEAKERS ABSTRACTS]

IS-01
LECTURE FLIPPING AND THE DIGITAL ENVIRONMENT: VEHICLES FOR FEEDBACK

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The education landscape is changing and programmes are now expected to deliver transferable skills alongside subject specific knowledge. The role of assessment has come under increasing scrutiny and needs to be both authentic and inclusive. Students are driven by summative assessment and require feedback on this work to improve their future performance. Often these requirements are captured in surveys such as the National Student Survey (NSS) and in the UK feed into league tables and so ultimately competition for students. This talk will introduce two different approaches to address the complex relationship between learning outcomes, assessment and the feedback that facilitates both student performance and satisfaction (Figure 1).

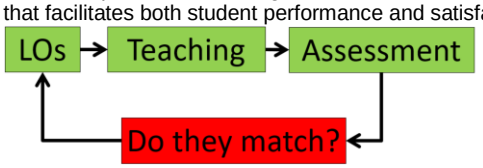

Figure 1

The first of these is a flipped lecture approaching a final year plant biology module. The initial (authentic) context was set out in a national strategy. Students were required to indicate which areas they deemed the most important. Responses were submitted online and class data was ranked to form the basis of the subsequent teaching sessions. For each student-determined sub-topic, session were held with varied delivery including group work, journal clubs, seminars and clicker quizzes. Students worked in groups, often in the virtual environment, to prepare for each flipped session. In parallel, students drafted, refined, and approved an exam question, which formed part of the final module examination. Student feedback was generally good but some students preferred the conventional approach. From this experience it is clear that facilitation of flipped teaching requires transparency, preparation and the need to be reactive. The second approach used formative assessment in a digital environment to deliver feedforward in a first year module. A weekly series of short answer questions similar to the exam were provided. Students answered the question and then ranked those of their peers using the online NoMoreMarking tool. The top answer was annotated and returned to them. This provided revision, reflection, evaluation and feedback in an efficient way for both staff and students. While uptake was initially high it dropped markedly during the semester (Figure 2), questioning how students perceive formative assessment in a largely summative environment.

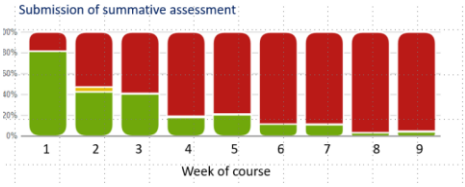

Figure 2

Overall, student engagement with online material did not correlate with exam performance, questioning the value of this approach to supporting students. However, the analytics around online engagement and performance allowed identification of differently behaving students groups and facilitates differential intervention to support them.
In summary, lecture flipping and online assessments are vehicles for provision of formative feedback/feedforward on summative assessment. Currently students are driven by summative assessment and clarity and transparency on assessment strategies is needed to ensure full engagement from them.
Status of UK plant science report (2014)
https://www.rsb.org.uk/images/pdf/UK_Plant_Science-Current_status_and_future_challenges.pdf

IS-02
TEAM BASED LEARNING: WHERE THE MAGIC HAPPENS WITH GROUP WORK THAT WORKS!

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Large group lectures are mostly ineffective in motivating students to engage and immerse themselves in higher-level problem solving. Thus, we need new instructional designs which emphasize the mastery of content in order to apply it rather than the traditional lectures which emphasize simple content covering. This transformation, from knowledge-focused curricula to a one in which the main goal becomes significant learning, requires the faculty to design and orchestrate learning activities and assessments that enable students first to master the knowledge and then apply it to complex problems. Team-Based Learning™ (TBL) is an active learning strategy that focuses on application of knowledge through a structured sequence of events (pre-class individual work, individual and team readiness assurance tests, application exercises and immediate feedback all through). This form of small-group learning that emphasizes student preparation out of class and application of knowledge in class can be used in large classes without requiring additional faculty or other resources. As an educational strategy, TBL has 4 essential elements – readiness assurance, design of application exercises, permanent teams, peer evaluation. In this sense, it is different from regular group work. By the successful application of these essential elements, TBL replaces or reduces lecture time, but at the same time ensures students are prepared for class, enhances higher order thinking and problem solving skills, develops effective teamwork and creates energy in the classroom.

IS-03
ENGAGING STUDENTS IN LARGE CLASSES

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Many of us are confronted typically with large cohorts of students; essentially at the undergraduate level (bachelors), that are handled as large classes. This is an increasingly main challenge in higher education and namely in universities today.
Though over many years ample assessment of teaching methodologies have put traditional classroom lecturing at the end of the list in terms of quantity and quality of the student's learning process, this approach remains the foremost method of teaching.
This is essentially due to, in most cases for "historical", lack of authority incentive and will to change and finally often because of lack of sufficient resources (staff, materials, equipment and space). Consequently, there is no breakdown of these cohorts that remain "Large", into smaller groups, allowing to kindle the interest of the students, engage them to be proactive and interactive participation before and during the lectures and promote collaborative work amongst the students.
Though other alternatives to lecture based classroom teaching do exist, and are actively used, such as Problem based Learning (PBL), Team-Based Learning (TBL), Flipped classroom or e-learning, etc. … the universities engaged in such innovative teaching approaches still remain a minority.
Change will no doubt come over time from the outgrowth of these alternative methods, seeded by those universities already engaged in these alternative teaching approaches and the recognition of failure of current teaching methods to adequately prepare our young scientists. However until then, we must try to move on and improve the learning process within the current framework and especially when confronted with large classes.