
Active collaborative learning in Cellular Pathology

“The key is to be responsive to developments during the sessions, rather than ‘arming yourself with teaching material’”

Area of Focus Colleagues have employed techniques from SCALE-UP (Student-Centred Active Learning and Upside-down Pedagogies) to change the focus of an exam-based topic from content knowledge to skills development.

Context Cellular Pathology is a core module in BSc Biomedical Science (and an option in BSc Biological Science). Performance has been below average on this module compared to others in the two courses to which it contributes, and it is deemed a difficult and unpopular topic sector-wide. At a school-wide event aimed at sharing good practice, the module leader was inspired by the work of a colleague in Healthcare Education who had had some success in shifting the emphasis from content knowledge to skills development in their own learning context. Matthew felt that a simulation approach using techniques from SCALE-UP might prove beneficial in his learning context too.

Interventions Two seminars were developed along SCALE-UP lines for 120-strong cohort. These were ‘Principles of Screening’, and a ‘Focus on Prostate Cancer’. Using a role-play approach, learners investigated a scenario from the perspectives of different interested parties. The aim of this activity was to help students from widening participation and other backgrounds to demystify the ‘medspeak’ in this area, and to give students the opportunity to ask and answer questions of their peers which they might not raise in a large lecture setting. The session was co-delivered with a postgraduate student, who circulated and promoted discussion, and provided a further resource for groups who were struggling. The module lead felt that some students from widening participation backgrounds might feel more comfortable interacting with a postgraduate student rather than speaking directly to the tutor. The sessions were piloted in 2016/17, and an exam question on that topic was introduced in 2017/18.

Initial Outcomes The related exam question was the most popular on that year’s paper, and students scored significantly higher on it than on others. The module lead attributes students’ success directly to this single intervention.

Challenges and next steps The module lead has gained confidence in *facilitating* the sessions (rather than disseminating content knowledge in the traditional lecture format). In order for another course to adopt this technique, the module lead emphasises the need to brief the students precisely but concisely on the aims and logistics of the activities. PowerPoint slides are available from the sessions.

Matthew sees the scope for synoptic assessment within the course (e.g. by making connections to the Virology module), and across STEM subjects (e.g. Forensics, or Maths input on probability or networks). There is also scope for interdisciplinary activity, for example with Law in a mock inquest.

In future, the module could add further SCALE-UP techniques, for example a scaffolded, flipped learning task, and use of strategic group formation. Both these approaches have been shown to support the narrowing of progression and attainment disparities.

Contact details Matthew Griffiths, module lead for Cellular Pathology
matthew.griffiths@ntu.ac.uk

PowerPoint slides are available from the sessions.