

# Student perceptions of Objective Structured Practical Examination (OSPE) assessments

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## Background

- Objective Structured Practical Examination (OSPE) assessments of theoretical, practical and problem-solving skills at multiple stations have been adapted to examine practical skills in physiology, anatomy and sports science to enhance employability and prepare students for research projects.
- We have recently expanded the range of students formally examined by creating new assessment stations and adapting others to examine pharmacology practical skills.
- This was primarily done in response to repeated student feedback - they had heard positive comments about the OSPE experience from the student body in the year above them.
- Using benchmark statements, student, staff and examiner feedback, stations assessing contextualised skills such as numeracy, graphic interpretation, drug mechanisms and targets, pharmacokinetics, and use of physiological data to identify appropriate drug treatments were developed.

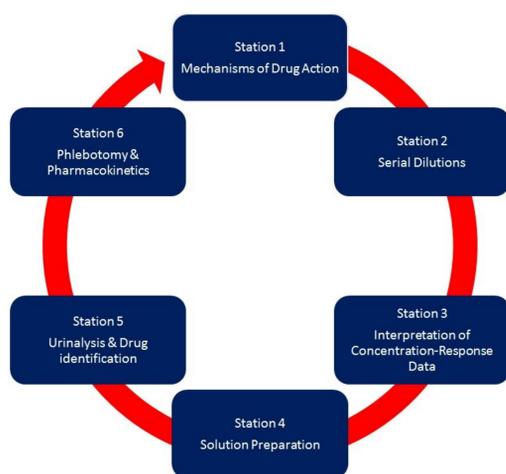


Figure 1. OSPE Assessment stations/ lab layout used for pharmacology students.

Students rotate round six stations in one hour and undertake a variety of tasks demonstrating different skills/ attributes.

Students report they think about employability skills during this exercise such as time management, planning and coping under pressure—things they often are asked when applying for jobs.

This style of assessment caters for those learners who prefer visual or kinaesthetic learning, rather than traditional read/write modes of assessment (e.g. lab reports).

## Aims

To discover whether the OSPE practical assessment used for physiology and anatomy student cohorts could be successfully adapted for pharmacology students, and to obtain student feedback regarding the experience.

## Methods

- Piloted with smaller class to make development easier (n = 22 students).
- Team of academic and technical staff involved to design, review and assess material
- Materials and logistics to make it successful for both staff and students had to be considered and designed carefully (see Fig 2).
- Students had access to revision videos and written material via the VLE to help revise in own time, as well as Quizlet revision exercises for some stations.
- Student anonymised views on the experience sought after they had received all grades and feedback using a short questionnaire. 20 of the 22 students responded.

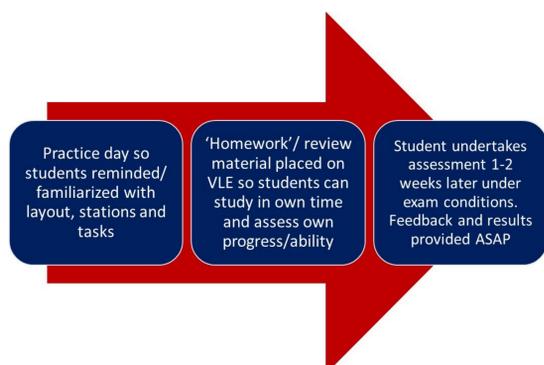
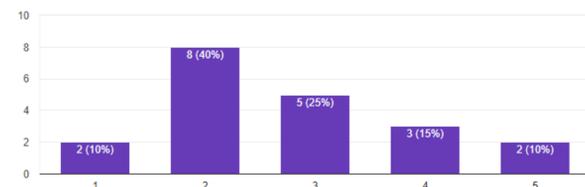


Figure 2. Process/events that students experienced when undertaking OSPE

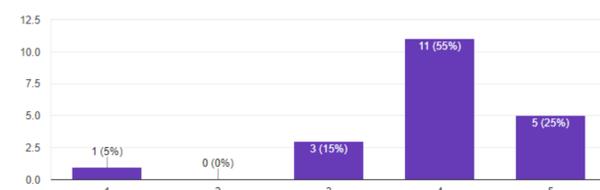
Students could rehearse for OSPE during practice week when staff were present to provide guidance and help. Study materials/assessment criteria were provided online to help them gain in confidence. Students attended during one hour assessment sessions and wrote answers to stations in simple answer booklet.

## Results

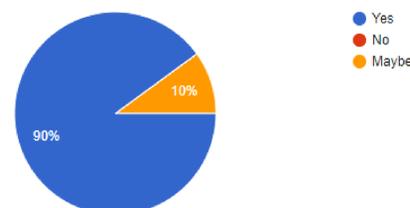
How confident were you BEFORE the OSPE about your ability to complete the stations properly?  
1 = not at all, 5 = very confident



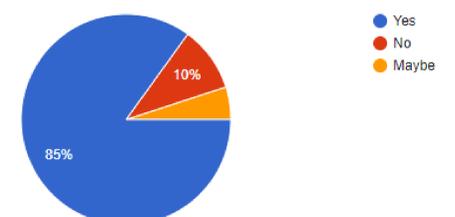
Did you find the science aspects or the non-technical aspects of the stations (i.e. time management, organisation, communication skills etc) harder? 1 = science skills, 5 = non-technical skills



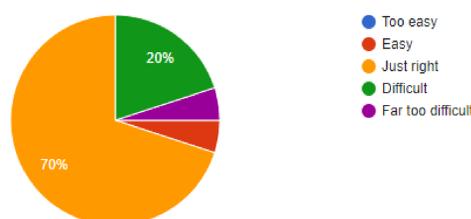
Did you prefer the OSPE to a 'traditional' practical?



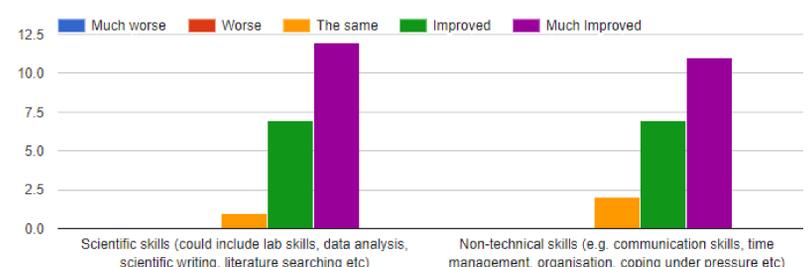
Did the OSPE make you think about skills other than practical scientific ones that employers/ project supervisors might expect you to possess?



How would you rate the difficulty of the OSPE?



Now you have finished your degree, how would you rate your skills now compared to when you did the OSPE earlier this year?



## Discussion & Conclusions

- Positive feedback from both staff and students but we feel we can still improve.
- Feedback here is almost identical to that obtained from previous physiology and anatomy cohorts.
- In conjunction with students, we are developing animated, mobile-friendly videos to help visual learners better review the tasks/material outside the lab environment. If these are perceived as useful then we will make them available to the whole student population via the VLE.
- Surprising data regarding non-technical skills—several students stated that 'it's not the science that's hard, it's organising yourself, planning what you do, and working within time constraints that's the hard thing'.
- Staff feel they have a more detailed understanding of their students' capabilities and graduate attributes, helping them better advise them on their targets, goals and strengths. Results have been fed back to wider staff community to consider whether we need to enhance what we provide for students to improve their non-technical skills.
- This assessment style allows rapid assessment with large numbers. It is now scheduled at the same time of term as those for other disciplines so we can share resources and staff for the OSPE's to further improve our efficiency and the student learning experience.