



PTAS Project Report (for SMALL PROJECT GRANTS)

Project Title:

A preliminary study to identify factors that predict academic attainment in case-based discussion board assessments in online distance-learning programmes, and participants' perception of assessment value.

Principal Investigator : Dr Louise Buckley

School / Department : Medicine/CTSO/Edinburgh Surgery Online

Team members : Drs. Chantelle Aftab, Heather Ellis, Uzma Tufail-Hanif, Oluseye Ogunbayo

For further information, please contact:

Grant recipients are expected to submit a brief report at the conclusion of their project which outlines briefly the following : nature of work completed; outcomes; benefits to student learning/student experience; dissemination activity (where relevant – actual and planned) and how the activity could inform future work or be transferred to other subject areas in the University. The brief report will be published on the IAD web pages.

Brief Report (maximum 500 words)

What did you do?

Case-based discussion board assessments (CBAs) are extensively used across the Edinburgh Surgery Online (ESO) suite of ChM level 12 online programmes. We wanted a better understanding of the demographic, experiential and motivational factors that influence academic performance to understand better the pedagogic contribution of CBAs to student attainment.

This study aimed to answer:

- a) What demographic factors are associated with academic attainment in CBAs?
- b) Does workplace experience and professional interests affect attainment in CBAs?
- c) What is the student's understanding of CBAs and their pedagogic value?

To answer these we undertook a cohort study. Baseline demographic information about 1st year students entering one of the five ChM programmes in 2020 was obtained in September via an online survey. Demographic data collected included: age/gender/year qualified as a doctor/years of experience in the programme discipline/whether qualified in UK or overseas/continent obtained initial qualification/whether currently based in UK/continent currently working on/average weekly working hours/workplace support for studies/interest, experience, expected exposure to course level topics. Student performance during the academic year (average grade per course/ whether an interruption of studies (IOS) or special circumstances (SC) application approval/ incidence of academic misconduct) was collected. An end of academic year survey reviewed working hrs/workplace support, and asked participant opinions on the use and effectiveness of CBAs to teach, learn, and assess clinical knowledge and understanding.

What did you find out?

Thirty-six usable participants (38.7% participation rate) completed survey one and progressed onto the main study. None of these students were referred for academic misconduct, few students were granted an IOS (n = 3) or SCs (n = 5) over this period. The median (1st & 3rd quartile) course level grade (CBA component only) obtained was: 76.0% (58.8 – 83.7). No demographic parameters were significant predictors of student success, and student level of prior experience or interest in a given sub-discipline did not predict grades at in the respective sub-discipline (individual courses) taught.

Sixteen participants completed the end of year survey. All respondents (100%) thought that CBAs were effective to teach (50% strongly agreed, n = 8) and for them to learn the material (25% strongly agreed, n = 4). Support for CBAs to assess knowledge and understanding was less strong. Only 18.8% (n = 3) strongly agreed that they an effective assessment tool, and 19.7% disagreed (n = 1) or were undecided (n = 2) as to efficacy. Themes highlighted by students when asked about why CBAs are utilised by ESO included authenticity, flexibility of approach, and promotion of active learning, Students also flagged limitations driven by variability of student and tutor engagement.

How did you disseminate your findings?

Wider dissemination is currently under discussion.

What have been the benefits to student learning?

It is intended to use these findings internally to help inform the curriculum revalidation of the ChM programmes, and in line with the curriculum transformation project. In particular, to review the assessment component of CBAs in line with student feedback and the current median performance.

How could these benefits be extended to other parts of the university?

Online asynchronous CBAs could be widely adapted across multidisciplinary programmes. Wider dissemination and discussion will refine and further improve efficacy as a teaching, learning, and assessment tool.

Who can be contacted for further details?

Dr Louise Buckley, louise.buckley@ed.ac.uk