



PTAS Project Report (for REGULAR PROJECT GRANTS)

Project Title: Formative assessment: how useful is it, who does it help the most, and how can we improve it further?

Project type (delete as appropriate) :

A Research Project (research focus on particular dimension of teaching, learning, assessment)

Principal Investigator : Dr David Hope
Schools/department : Medical School

Team members (including Schools and Departments) :

Dr Peter Moles (Business School)
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Ms Avril Dewar (Medical School)
Prof Helen Cameron (Medical School)

For further details, please contact:

Project teams must submit a report within 4 months of the conclusion of their project. Copies of dissemination material (eg journals/newsletter articles, conference papers, posters should be listed and attached (separate to the word count). The brief report will be published on the IAD web pages.

Report (maximum 1500 words)

What did you do?

We explored whether expanding formative assessment was beneficial to students at three different schools. We did this using a mixed method study design.

Firstly, we compared performance change caused by introducing formative assessment by comparing the “new” curriculum with formative assessment against the “old” version without it. This allowed us to test the effect of expanding formative assessment.

Secondly, we explored the effect of the change on failing or “at risk” students, which we identified as the bottom 25% of the cohort. This was done to test the possibility that formative assessment was beneficial in general, but detrimental to students most in need of support.

Thirdly, we carried out a series of interviews, informal discussions and questionnaire items embedded in other questionnaires aimed at identifying how formative assessment might be improved in the future, the current barriers to uptake, and particularly how “realistic” formative assessment was to students. A thematic analysis on the interviews identified a number of recurring issues.



What did you find out?

We primarily modelled the impact of formative assessment in the medical school and veterinary sciences. In general, formative assessment was a very strong predictor of summative assessment, uptake is high, but the evidence of a sustained increase in marks is limited. Formative assessment has some impact on performance, but it is not currently strong using pre- and post- introduction comparisons.

The exploration of the “at risk” students showed they were much less likely to sit formative assessment, often had very poor marks in formative assessment which could have been used to identify them as being at risk, and were less likely to collect/view the results.

The qualitative analysis showed students had difficulty in identifying how closely the formative assessment matched summative assessment, which sometimes meant they saw less value in formative assessment. Importantly, some – but not all – students repeatedly warned that without some formal requirement “making” them sit formative assessment there was a risk of not doing it at all or failing to put in the required effort. This extended to a range of non-mandatory activities including the collection of formative assessment results. On a practical level, students often criticised the shortness of formative assessment and consistently asked that it be as long as the summative assessment.

Collectively, we have shown moderate benefits for the deployment of formative assessment. Students regard formative assessment as beneficial but have concerns over how well it matches summative assessment and the challenges of self-motivating to complete it. There is clear evidence that at risk students are less likely to make use of such tools, so it is critical that schools monitor carefully who is failing to sit formative assessment (or sitting and doing extremely poorly) to provide them with support.

With the initial work completed it is now quite straightforward to monitor these trends on an ongoing basis.

How did you disseminate your findings?

The work was disseminated at a conference and several CRM events.

What have been the benefits to student learning?

Firstly, we have confirmed that formative assessment is beneficial in practice, which supports expanding formative assessment further. Secondly, we have shown again that we need to be mindful of at-risk students and that they may be less able to make full use of new teaching resources unless we give dedicated support. Thirdly, some students claim that without the “push” from being mandatory/or having a small assessed component it is often too easy to just not sit formative assessment or collect the results. We may improve student learning by requiring students to sit formative assessment even where it does not otherwise contribute to progression, but not all students would support this move.

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



If a school is using formative assessment, it is straightforward to apply these benefits by expanding formative assessment, monitoring at risk students, and requiring engagement with formative assessment.



Financial statement (please delete as appropriate):

Either

This project has utilised the funding awarded to it by the PTAS adjudication committee and the Principal Investigator or School Administrator appropriate can provide financial statements showing the funding usage as and when required by the UoE Development Trusts who may require it for auditing purposes.

Please send an electronic PDF copy of this report to:

Email: iad.teach@ed.ac.uk

Whether introducing formative assessment improves later summative marks