

eSTeEM Projects Summaries: Apr 24 – Sep 24

Title: [Can we reduce anxiety of students sitting online exams? Sharing best practice between SPS \(School of Physical Sciences\) and LHCS \(Life Health and Chemical Sciences\)](#)

Project team: Gemma Warriner, Fiona Moorman and Becca Whitehead

Keywords: Remote exam, anxiety, support, preparation

Description: Through student surveys and interviews this project established that preparing students for online exams via tutorial sessions helped to reduce their anxiety and improve their self-efficacy. It also noted that timing was still a significant issue and it was important for module teams to consider (and convey to students) how much they expect students to consult module materials when writing exams and plan the time accordingly. The inequality of students own IT equipment (including internet speed) continued to be both an issue and a sense of anxiety and ongoing technical support during the exam period was vital.

Reviewed by: SP

Title: [Evaluation of D-flag students' accessibility to and use of online tutorials and forums in L2 modules](#)

Project team: Sarah Daniell and Lorraine Waters

Keywords: Online tutorials, forums, participation, disability, accessibility

Description: The project surveyed and interviewed students on two level 2 modules. The results indicated that lack of time is the key reason why students do not attend live tutorials. Students experiencing mental health issues were not inhibited from attending live tutorials and were more likely to use tutorial recordings. Forums were considered a source of anxiety for many students, especially if they were experiencing mental health issues and they felt less confident engaging with them even for assessed tasks.

Reviewed by: SP

Title: [Exploring timeliness, positivity and collection rates of TMA feedback](#)

Project team: Colette Christiansen and Carol Calvert

Keywords: TMA feedback, engagement

Description: This project builds on a previous eSTeEM project on improving student use of feedback on marked TMAs. A statistical analysis was undertaken on nearly 300,000 assignments submitted by 88,000 undergraduate students who actively studied in October 2022 at levels 1, 2 and 3. 64% of the students included in the study were female, 3% were Black students and 18% were from the lowest quintile of postcode in the index of Multiple Deprivation. We found 9 factors that were individually significant. These include assignment score, gender, assignment number, whether the feedback was returned before or after the cut-off date, amongst others. The analysis showed that IMD was no longer significant once the above factors had taken into account.

[*Christiansen, C., Calvert, C., & Morris, C. \(2024\). Factors Affecting Students' Likelihood to Access Feedback. Educational Researcher, 53\(8\), 478-480.*](#)

Reviewed by: DC

Title: [Investigation into running course specific taster tutorials within prisons for non-OU students & an evaluation of effect and impact of having SiSE only tutor groups](#)

Project team: Colin Blundell and Shaun McMann

Keywords: prison, SiSE, tutorials, education, mathematics, student support, SiSE only, tutor group

Description: Students in Secure Environment (SiSE) typically have different issues to other students from pre-registration through to the end of their studies. The first part of this project was an evaluation of a 'taster' tutorial within a prison in the North of England for non-Open University students. The second part of the research is an evaluation of SiSE only tutor groups on two mathematics level one module (MUI23 and MST 124). The main findings of the first part is that the taster tutorial was extremely beneficial and informative for the prisoners and prisons, but they should be run in a coordinated way with higher level backing with coordination from both prisons and the OU. The main findings from the second part is that ALs are efficient and effective key stakeholders once they develop deeper knowledge and understanding of how to work within and between the OU and prisons. The key recommendation is that a compulsory short training module should be completed by all ALs who tutor SiSE to aid knowledge, understanding and consistency of tuition delivery.

Reviewed by: DC

Title: [Peer-learning activity for communicating algorithms in a level 2 computer science module](#)

Project team: Ravi Rajani, Jason Clarke, Phil Hackett, Stephen Rice

Keywords: Peer Learning, Peer Feedback, Groupwork, Computer Science Education

Description: This project gives details of how a peer learning activity using Open Studio was piloted for a number of students on M269. With favourable feedback from both students and associate lecturers, it is the recommendation of the project team that this activity be rolled out to the rest of the module within its assessment strategy. The report gives guidance on how this could be done for M269 and any other module.

Reviewed by: SP

Title: [The use of Learning Analytics in STEM over 4 years](#)

Project team: Tom Olney and Carlton Wood

Keywords: Learning Analytics, Theory of Practice Architectures

Description: This project reviews the change in use of learning analytics for staff as compared to 4 years ago. It notes that there has been a growth in the amount of learning analytics implementations available to staff and that they are now used more frequently to inform interventions. Learning analytics have also been used in several situations to debunk "myths" that had been widely accepted about student behaviour. However, staff still feel they lack the time and support to keep up to date with learning analytics developments.

Reviewed by: SP

Title: [Building a sense of belonging to aid retention at a level 2 Physics module](#)

Project team: Anne-Katrin Klehe

Keywords: Sense of belonging, bridging to level 2, retention

Description: This project aims to investigate whether by offering extra weekly non-recorded online meetings would increase a sense of belonging and whether such an intervention would aid retention on a core level 2 Physics module (S217). To gather data, student feedback was sought and the interactions amongst the students during the meetings were carefully analysed. Quantitative analyses on TMA submissions and overall examinable score between the test group and comparison group were undertaken. The test group showed a higher retention

rate than the control group and there is qualitative evidence that students in the test group felt being part of a coherent group. The difference in retention was mainly established in the first months of the module. Students in the test group appreciated the extra meetings and saw them as opportunities to ask questions in an informal environment and they also reported that they enjoyed the additional materials offered to them. That said, the test group did not have an exam advantage over the rest of the student cohort in S217–22J.

Reviewed by: DC

Title: [Evaluation and improvement of print packs use for Environmental Science students](#)

Project team: Fiona Aiken and Chris Hutton

Keywords: Print pack; disability; SiSE; reasonable adjustment; accessibility

Description: Printed materials (“Print Packs”) are sent to students with certain declared disabilities and those in secure environments. This project highlights that students need advice on how to use them effectively. It recommends the appointment of experienced cross-qualification Associate Lecturers as print pack champions. The print pack champions provide advice to students and staff on their content and how to get the most out of them. They also ran effective staff development sessions for ALs on their use. It also suggests that it would be useful for all Associate Lecturers to be able to have access to the content of the print packs on their modules so they can see what the students receive and are better placed to support students using them.

Reviewed by: SP

Title: [Are You Ready for Your Studies – Are we Assessing Students Readiness? An evaluation of the usefulness of the Level 2 ARFY quizzes](#)

Project team: Soraya Kouadri Mostefooui and Oli Howson

Keywords: Diagnostic quiz, early interventions, programming, level 2 OU modules

Description: The aim of this project is to investigate the success of using the diagnostic AYRF (Are you Ready For) quizzes and their role in preparing undergraduate students for their level 2 modules. Three programming modules (TT284, M269 and M250) and a non-programming module TM255 were selected for this purpose. Data were gathered using focus groups with the module team members and Associate Lecturers of these level 2 modules, survey of the students who took AYRF and an interview of a number of students. Findings showed that

the quizzes made students less anxious and more confident to start the module. Statistical analysis suggests that the AYRF results were indicative predictor towards final grades as a significant correlation was detected between these two factors. However, the same conclusion could not be extended to the non-programming module as the student participation in the AYRF was far lower. To improve the existing AYRF quizzes, students suggested the contents of the quizzes reflect the module content and difficulty more. The educators suggested that a discussion forum where students could discuss the quizzes and their results, a second quiz/an audit later on in the module and inclusion of softer skills are considered.

Reviewed by: DC

Title: [Changing times, changing pedagogies](#)

Project team: Rachel Hilliam, Michael Grove, Jotham Gaudoin, Catriona Queen and Cath Brown

Keywords: Mathematics pedagogies, teaching online, Covid19

Description: This project published results from a small, but indicative number of institutions from across the sector on the changes that had been made to pedagogy and practice within Schools of Mathematics and Statistics since the measures introduced during the pandemic. It established, with a few exceptions, they had returned to pre-pandemic practices, including face-to-face lecturers and face-to-face closed book examinations. Most had however, kept a few minor practices from during the pandemic such as providing pre-recorded lecture material, online quizzes and electronic submission of assessment.

Reviewed by: SP
