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<th>No.</th>
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<th>School(s)/Unit(s)</th>
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<td>1</td>
<td>18K-AA-CC-01</td>
<td>Adeola Adeliyi</td>
<td>Pair Programming as a tool to enhance teaching and learning of programming at a distance</td>
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<td>Pair Programming, remote peer programming, extreme programming, teaching programming at a distance</td>
<td>TM112, TM129, M150, M609</td>
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<td>Michel Wermelinger (C&amp;C), Jan Roswell (E&amp;I) and Karen Kear (C&amp;C)</td>
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<td>2</td>
<td>18K-FACH-EEES-01</td>
<td>Fiona Baker and Chris Bott</td>
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<td>Employability</td>
<td>Employability, skills development, radar diagrams, self-assessment</td>
<td>EEE5</td>
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<td>3</td>
<td>17K-LAAP-SPSCC-01</td>
<td>Laura Alexander and Alexis Lambury</td>
<td>An Investigation into how STEM students use learning resources in different formats, and how this use develops over time</td>
<td>Technologies for STEM learning</td>
<td>Online, e-resource, modules, digital, learning resources, interaction, study, student engagement, print materials, retention</td>
<td>S237, M2524, M250</td>
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<td>Michel Wermelinger (C&amp;C) and Jon Rosewell (C&amp;C) and Karen Kear (C&amp;C)</td>
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<td>18F-LBMW-CC-01</td>
<td>Leonie Bernes and Matt Walkley</td>
<td>Understanding the profile of students</td>
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<td>C&amp;C</td>
<td>Barroca - Understanding different perspectives of postgraduate education in the international arena</td>
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<td>17E-JB-LHCS-01</td>
<td>John Baxter</td>
<td>Evaluation of E-resource notetaking tools</td>
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<td>Davee Butler (HCS), Victoria Pearson (SPS), Eleanor Craig (HCS) and Katherine Leys (HCS)</td>
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<td>18A-JBSJ-EI-01</td>
<td>James Bowen and Stephen Jones</td>
<td>Specimen Exam Papers: Do students benefit, and if so, how?</td>
<td>Supporting students</td>
<td>Specimen, exam, paper, end of module assessment, feedback</td>
<td>T271, T272</td>
<td>SPS</td>
<td>Anne-Marie Gallen (EI)</td>
<td>Jan-18</td>
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<td>7</td>
<td>18K-LBRJ-WELSLHCS-01</td>
<td>Lesley Boyd and Rob Janes</td>
<td>Using technology-enabled learning networks to drive module improvements in S310</td>
<td>Employability</td>
<td>Gamification, simulations, communication skills, service management, team working</td>
<td>TM250</td>
<td>C&amp;C</td>
<td>Matthew Nelson (C&amp;C)</td>
<td>Nov-18</td>
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<td>8</td>
<td>18K-LRJ-WELSLHCS-01</td>
<td>Lynley Boyd and Rob Janes</td>
<td>Using technology-mediated learning networks to drive module improvements in S310</td>
<td>Technologies for STEM learning</td>
<td>Learning analytics, tricky topics, retention, progression, collaborative learning, problem solving, learning interventions, grounded theory method, learning analytics</td>
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<td>9</td>
<td>17E-AB-MS-01</td>
<td>Alison Bromley</td>
<td>Supporting the student’s learning journey through the transition of mathematics and statistics from level 2 to level 3</td>
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<td>M&amp;S</td>
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**Keywords:**
- STEM: Science, Technology, Engineering, Mathematics
- LMS: Learning Management System
- SPS: School of Physical Sciences
- EEES: School of Electronic, Electrical and Systems Engineering
- S310: Module code
- C&C: Centre for Computing

**Other Staff Involved:**
- Michel Wermelinger (C&C)
- Jon Rosewell (E&I)
- Karen Kear (C&C)
- Davee Butler (HCS)
- Victoria Pearson (SPS)
- Eleanor Craig (HCS)
- Katherine Leys (HCS)
- Anne-Marie Gallen (EI)
- Matthew Nelson (C&C)
- Rachel Williams (JBSJ)

**Other eSTEeM Projects as PL:**
- Joint PL: Bletchley Institute and Remote/Onsite Experimentation
- Joint PL: STEAM Innovation Programme
- Joint PL: M140 B VLE usage
- Joint PL: M3040 B VLE usage
- Joint PL: M3040 B VLE usage
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<td>Stephen</td>
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<td>Carol</td>
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<td>Supporting students: bridging interventions, module start, retention, tutor support, at-risk students</td>
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<td>Anne</td>
<td>Campbell</td>
<td>Supporting students: tuition, group tutorials, VTP, teaching model, student attitudes, student perceptions</td>
<td>Academic Services, EPS and S&amp;I</td>
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<td>Michael</td>
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<td>Student impact: Measuring the effects of specialized versus inline long-form audio in Open University distance learning context</td>
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<td>Gollinson</td>
<td>Can a new OU Study App enhance the learning experience of students on S350, an online-only module?</td>
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<td>Are virtual insight visits an effective way of engaging learners and supporting student retention in distance learning environments?</td>
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<td>18K-LCDB-LHCS-01</td>
<td>Lynda Cook and Diane Butler</td>
<td>Monitoring student behaviour on a level 1 Science module using a multidisciplinary approach</td>
<td>Supporting students</td>
<td>Interviews, progressions, level 1, SST, M&amp;LS interventions, student behaviour</td>
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<td>Dan Berwick (LHCS), Marcus Badgey (LHCS), Anthony Short (SRSC, Manchester), David Appleton (SRSC, Manchester), Oliver Burney (SRSC, Manchester)</td>
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<td>Eleanor Crabb, Nick Chatterton and Kate Bradshaw</td>
<td>Developing responsive approaches to enhance personalized learning in S111</td>
<td>Technologies for STEM learning</td>
<td>Personalized learning, teaching assets, media, videos, Camtasia, Screencasts, Adobe Connect, online best practice guide</td>
<td>LHCS and STEM Delivery</td>
<td>Crabb and Bradshaw - Blending labcasts and remote/virtual experimentation: students’ perception in practical skill development alternative</td>
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<td>Eleanor Crabb and Jane Laukhin</td>
<td>Improving success and satisfaction of credit transfer students entering L3 modules in Science</td>
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<td>Credit transfer, level 3, student support, distance learning, transition</td>
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<td>Crabb joint PL - Developing responsive approaches to enhance personalized learning in S225</td>
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<td>Sally Crighton, Andrew Potter and Gerry Golding</td>
<td>Developing students and tutors perceptions of good mathematical communication on level one service</td>
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<td>Good mathematical communication, marking grid, focus groups, service teaching</td>
<td>M&amp;LS</td>
<td>Crighton - Leading the way as a hydro nation in Scotland – supporting student transitions within a strategic partnership between Glasgow Clyde College, The Open University in Scotland and Heriot-Watt University</td>
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<td>Sarah Davies</td>
<td>Place-making and student identity in fieldwork learning</td>
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<td>Technologies for STEM learning</td>
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<td>DOI-JEFT-CC-01</td>
<td>Sharon Davies and Chris Thomson</td>
<td>Learning into the way</td>
<td>Supporting students</td>
<td>Technologies for STEM learning</td>
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<td>18E-CE-EI-01</td>
<td>Claudia Eckert</td>
<td>Research: and Education in Product Development for STEM</td>
<td>Employability</td>
<td>Technologies, industrial trends, curriculum planning, engineering, design</td>
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<td>4</td>
<td>19J-SD-EEES-01</td>
<td>Elizabeth Elio and Alice Gallagher</td>
<td>Learning behaviours and successful outcomes in STEM students</td>
<td>Supporting students</td>
<td>Learning behaviour, student success, retention, progression, learning design</td>
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<td>5</td>
<td>18E-JFJW-WELSCC-01</td>
<td>Shirley Evans, Winston Graham and Mariah Mall</td>
<td>Longitudinal impact of visiting scholars on the professional development of students from China</td>
<td>Supporting students</td>
<td>Online collaborative learning, distance learning, teaching strategies, anxiety</td>
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<td>19I-SEWGMM-CC-01</td>
<td>Shirley Evans, Winston Graham and Manish Malik</td>
<td>Strategies to support students and tutors with online collaborative projects: an action research project</td>
<td>Supporting students</td>
<td>Academic skills development, English for Academic Purposes, individual support sessions, student experience, student performance, student retention, student support</td>
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<td>7</td>
<td>19I-JFJW-WELSCC-01</td>
<td>Shirley Evans, Winston Graham and Manish Malik</td>
<td>Supporting student academic skills development - An evaluation of English for Academic Purposes pilot</td>
<td>Supporting students</td>
<td>Academic skills development, English for Academic Purposes, individual support sessions, student experience, student performance, student retention, student support</td>
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<td>18E-CG-CC-01</td>
<td>Christine Gardner</td>
<td>Strategies for tracking student engagement</td>
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<td>Analytics, retention, OU Kalye, student engagement, online, materials</td>
<td>TM351, TM352, TM354, TM356</td>
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</table>
19: **Hannah Gauci and Janette Wallace**

**Evaluating a new STEM AL induction programme**

Academic professional development

Higher Education, induction, tutoring, novice ALs

HES

Assessing the effectiveness of the induction process for novice Associate Lecturers in the School of Life Health and Chemical Sciences in preparing them for the Associate Lecturer role

Wallace - Does attendance at unrecorded online module wide tutorials on a science module enhance student enjoyment, engagement and success? How might this impact tuition strategy for current and future LHCS modules?

Gauci - Summer Series of Journal Clubs: an opportunity to develop employability skills and a sense of community amongst students in secure environments

Oct-19 Dec-20

20: **Nigel Gibson**

**Do they know what they are doing? A review of IT use by prison-based students**

Equality, diversity and inclusivity

Study skills, offender learning, students in prison, supporting students, online learning

& C

Oct-19 Dec-20

21: **Daniel Gooch**

**Teaching distributed computing using Raspberry Pi clusters at a distance**

Technologies for STEM learning

Raspberry Pi cluster, distance learning, distributed architectures, parallel, CS education

TM110, TM112, TM120, S2069

TM110, TM112, TM120, S2069

& C

Mike Richards (C&C) and Jon Rosewell (C&C)

Oct-19 Jan-21

22: **Alec Goodyear**

**Evaluating the impact of a qualification based approach to student engagement and success in engineering study**

Supporting students

Student success, engagement, progression, teaching quality assessments, TEF, assessment and tutorial groups, personal development planning, professional skills, peer interactions

& I

Carol Morris (E&I), Sally Organ (E&I) and Maria Kantirou (STEM Deanery)

May-18 May-20

23: **Vikki Haley-Mirnar and Carol Midgley**

**SDK100 – what aspects of this online only module are the students engaging with?**

Online/onscreen STEM practice

Online, interactive components, student perceptions, tutorials, engagement

SDK100

HES

Haley-Mirnar joint PL - Investigating factors which affect active student participation during tutorials in online rooms

Oct-16 Jul-19

24: **Catherine Halliwell and Cath Brown**

**Can an asynchronous student conference in Open Studio develop students' critical evaluation skills?**

Supporting students

Asynchronous, OpenStudio, evaluation skills, peer-to-peer feedback, online, assessment, professional skills

S350

LHCS, SPS and EEES

May-19 Nov-20

25: **Janet Haresnape**

**Skills progression in practical science within the Life Sciences**

Employability

Employability, skills progression, practical skills, problem solving, life sciences pathways

S205, S117

HES

Evaluation of existing collaborative wiki activity and comparison with similar collaborative online activities in other contexts

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<td>Nacho Romero (STEM Deanery)</td>
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<td>Evaluating the accessibility of an alternative format of module materials in Maths &amp; Stats</td>
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<td>John Clarke (AS), Cheve Coowel (WELS) and Kaye Williams (LDS)</td>
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Janet Hughes and Ann Walshe

Investigating the perceived benefits to computing students of remote pair programming

Supporting students for programming, earning community, employability, student satisfaction

TM112, TM129, M130

Walshe joint PI - Perceptions, Expectations and Experience of Group Tuition: towards a shared understanding amongst stakeholders

Oct-19 Mar-21

Jim Iley

The S112 assessment strategy: student behaviours and subsequent success in higher level study

Innovative assessment

Single component assessment, SCA, OES, assignments, TMAs, higher study, student behaviours, retention, progression

S133, S1210, U116, S131

Walshe joint PI - Towards A Structured Process for Involving ALs in Module Tuition Strategy Design and Review

Oct-18 Dec-19

Barbara Jones

Online module forums: espoused, actual and improved

Supporting students

Forums, asynchronous discussion groups, tutor interventions, peer-to-peer interactions, tutor-peer interactions

T313, T317

SL

Jul-19 Jul-20

Mark Jones

Online Team Investigations in Science (OTIS)

Online, teaching, learning, interventions, student engagement, peer-learning, assessment strategies, Mars Rover simulation, PIRATE robotic telescope

S282, S138

SPS

Susanne Schweitzer, Ulrich Holz, Judith Croston and Sheona Urquhart (SPS)

Developing practice in online synchronous tuition by peer observation, feedback and reflection

Joint PI - Perceptions, Expectations and Experience of Group Tuition: towards a shared understanding amongst stakeholders

Oct-17 Jul-19

Soraya Kouadri Mostéfaoui

Supporting Degree Apprenticeship students: Tutors’ and Students’ perspectives

Supporting students

Degree apprenticeship, tutor, student, perspectives, tuition strategy, support, subject-specific tutors, employability

TMX130, TMXY130

C&C

Christine Gardner (C&C)

Assessing ‘alternative media’ elements: is there a generic model?

Kouadri Mostéfaoui joint PL - Visualising the code: are students engaging with programming at level 1?

Kouadri Mostéfaoui - Supporting Degree Apprenticeship students: Tutors and Students’ perspectives

Kouadri Mostéfaoui - Assessing ‘alternative media’ elements: is there a generic model?

Oct-17 Oct-19

Jane Loughlin, Kathy Beidolf and Diane Butler

Are You Ready for Your Studies - Are we Assessing Students Readiness? An evaluation of the usefulness of the Level 2 ARFY quizzes

Supporting students

Retention and progression, students satisfaction, gender bias, pre-requisite

MG50, TT280, RA089

C&C

Kouadri Mostéfaoui - Assessing ‘alternative media’ elements: is there a generic model?

Kouadri Mostéfaoui joint PL - Visualising the code: are students engaging with programming at level 17

Kouadri Mostéfaoui - Supporting Degree Apprenticeship students: Tutor and Student’s perspectives

Nov-19 May-21

Soraya Kouadri Mostéfaoui and Oli Howson

One Year Ready for Your Studies - Are we Assessing Students Readiness? An evaluation of the usefulness of the Level 2 ARFY quizzes

Supporting students

Retention and progression, students satisfaction, gender bias, pre-requisite

MG50, TT280, RA089

C&C

Kouadri Mostéfaoui - Assessing ‘alternative media’ elements: is there a generic model?

Kouadri Mostéfaoui joint PL - Visualising the code: are students engaging with programming at level 17

Kouadri Mostéfaoui - Supporting Degree Apprenticeship students: Tutor and Student’s perspectives

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<td>Accessibility, inclusivity, language, terminology, behaviour, completion, progression, attainment, student motivation, student engagement</td>
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<td>Developing programming, problem-solving skills using individualised screencasts</td>
<td>Technologies for STEM learning</td>
<td>Problem-solving, podcasts, screencasts, retention, progression, transition, programming, personalisation, TMA feedback, threshold concepts</td>
<td>T113, T129</td>
<td>Christine Gardner (C&amp;C), Richard Walker (AL)</td>
<td>Nov-18</td>
<td>Jan-20</td>
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<td>16</td>
<td>18B-AMHJ-EI-01</td>
<td>Alice Monteaster and Hedieh Jazaeri</td>
<td>Improving and evaluating inclusivity in group project work for distance-learning engineering students</td>
<td>Equality, diversity and inclusivity</td>
<td>Inclusivity, group work, project-based learning, engineering education, co-design</td>
<td>T176, T276, T229</td>
<td>Lynda Vaughan Jones (E&amp;I), Theo Zamenopoulos (E&amp;I), Shahram Taherzadeh (E&amp;I), Kate Lister (RES), Jan Peters (Visiting Professor)</td>
<td>Oct-19</td>
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<td>17</td>
<td>18D-FMN-LHC-01</td>
<td>Fiona Moorman and Karen New</td>
<td>Online journal clubs in distance higher education: an opportunity to develop skills and community?</td>
<td>Online/onscreen STEM practice</td>
<td>Peer-to-peer learning, online journal club, DIC, employability, professional skills, skills development, student engagement, motivation, core competences, critical reading, evaluating, communication</td>
<td>S122, S294</td>
<td>Hazel Church (STEM Deanery)</td>
<td>Nov - Use of augmented reality in a second level human biology module: benefits and challenges</td>
<td>Nov-18</td>
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<td>02</td>
<td>Fiona Moorman and Karen New</td>
<td>STEM ISSS - where are we now? Evaluating awareness, usage and effectiveness of individual student support sessions</td>
<td>Supporting students</td>
<td>Individual student support sessions</td>
<td>Affects, supportive</td>
<td>LHCS</td>
<td>May-19</td>
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<td>03</td>
<td>David Morse and David King</td>
<td>STEM ISSS - where are we now? Evaluating awareness, usage and effectiveness of individual student support sessions</td>
<td>Supporting students</td>
<td>Consultation, support, experience, Qualification pathway, network diagram, Sankey diagram</td>
<td>Affects, supportive</td>
<td>C&amp;C</td>
<td>Jun-19</td>
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<td>04</td>
<td>Karen New</td>
<td>STEM ISSS - where are we now? Evaluating awareness, usage and effectiveness of individual student support sessions</td>
<td>Supporting students</td>
<td>Consultation, support, experience, Qualification pathway, network diagram, Sankey diagram</td>
<td>Affects, supportive</td>
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<td>Fiona Moorman and Hannah Gauci</td>
<td>Summer Series of Journal Clubs: an opportunity to develop employability skills and a sense of community amongst students in secure environments</td>
<td>Supporting students</td>
<td>Qualification, Journal Club, Journal Club, employability, community, retention</td>
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<td>Jun-19</td>
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<td>06</td>
<td>Karen Moorman and Hannah Gauci</td>
<td>Summer Series of Journal Clubs: an opportunity to develop employability skills and a sense of community amongst students in secure environments</td>
<td>Supporting students</td>
<td>Qualification, Journal Club, Journal Club, employability, community, retention</td>
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<td>19J-TD-STEMD-01</td>
<td>Tom Olney</td>
<td>Measuring the Impact of Learning Design and Course Creation (LDC) Workshops on Chinese OU Institutions and the Open University</td>
<td>Academics, professional development, learning design, course creation, professional development, impact, China, international engagement, pedagogy research</td>
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<td>19F-CP-CC-01</td>
<td>Cathryn Peoples</td>
<td>Personalised Student Support Plans: Examining the Effectiveness of Support Recommendations made by Students</td>
<td>Supporting students, personalized support, student engagement, student profiling, online tools, staff-student interaction</td>
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<td>19F-PPSS-CC-01</td>
<td>Paul French and Simon Savage</td>
<td>Innovative assessment: formative and summative assessment, student engagement, student reflection, co-design, participatory design</td>
<td>Innovative assessment, formative and summative assessment, system, student engagement, student reflection, co-design, participatory design</td>
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<td>19J-APCG-MS-01</td>
<td>Andrew Potter and Gerry Golding</td>
<td>Associate Lecturer Reflections on Student Perceptions of Usefulness of Level 1 Service Mathematics</td>
<td>Supporting students, service mathematics, service teaching, usefulness, student perceptions, student attitudes, threshold concepts, discourse</td>
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<td>19H-RQ-EI-01</td>
<td>Rongshan Qin</td>
<td>Online remote experiments in chemistry - practicals of physics, assessment, tracking and student perception</td>
<td>Online/onscreen STEM practice, online remote experiments, real science, student engagement, performance, perception, laboratory</td>
<td>Aug-18</td>
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<td>19E-APGG-MS-01</td>
<td>Andrew Potter and Colin Blundell</td>
<td>Blended tutorials in Mathematics: simultaneous F2F and online learning events</td>
<td>Technologies for STEM learning, blended tuition, online synchronous conferencing, remote access, mathematics learning, face-to-face tutorials, online tuition, Adobe Connect, handwriting on screens, use of tablets for learning, technological innovation</td>
<td>Aug-18</td>
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<td>18F-NPSCECRJ-LHCS-01</td>
<td>Nicholas Power, Simon Collinson, Eleanor Crabb and Rob Janes</td>
<td>Online remote experiments in chemistry - analysis of delivery, assessment, tracking and student perception</td>
<td>Online remote experiments in chemistry - analysis of delivery, assessment, tracking and student perception</td>
<td>Jun-18</td>
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<td>18H-RQ-EI-01</td>
<td>Rongshan Qin</td>
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<td>Online/onscreen STEM practice, online, remote access, experiments, real science, student engagement, performance, perception, laboratory</td>
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<td>DUL-01</td>
<td>Factors influencing female participation in Physics, Science Postgraduate Research Programmes</td>
<td>Clare Reger, Mark Bowden and Anne-Marie Gallen</td>
<td>Equality, diversity and inclusivity</td>
<td>Equality, diversity and inclusivity</td>
<td>Female postgraduates, fusion; nuclear; under-representation; tutorial; progression; recruitment; physical science; physics; engineering</td>
<td>E&amp;I and Uni of Liverpool</td>
<td>Reger and Gallen - Evaluating the level 1 engineering tutor resource</td>
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<td>Assessment banking - unfair, flexible or deferred? An investigation of the outcomes and experience for students who have assessment banked</td>
<td>Linda Robson</td>
<td>Supporting students</td>
<td>Assessment banking, TMA, retention</td>
<td>Assessment banking, TMA, retention</td>
<td>Laura Stafford (Al)</td>
<td>A quantitative and qualitative investigation into communications sent to students for selected level 1 MST and science modules</td>
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<td>JRCH-03</td>
<td>Online peer mentoring at scale: Benefits and impacts from a student buddy perspective</td>
<td>Julie Robson and Chris Hutton</td>
<td>Supporting students</td>
<td>Peer mentoring, sustainability, employability skills, student buddies</td>
<td>Peer mentoring, sustainability, employability skills, student buddies</td>
<td>Laura Stafford (Al)</td>
<td>Flight of the Fritillary, Flight of the Fritillary phase 2</td>
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<td>ER-03</td>
<td>Floodplain Meadows Partnership Ambassadors</td>
<td>Emma Rothero</td>
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<td>Floodplain meadows, ambassadors</td>
<td>David Gowen</td>
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<td>Use of OULive recordings of `live mathematics' and discussion forums on a level 3 Pure mathematics module to enable students to move to a growth mindset in maths and to add a social dimension to learning mathematics</td>
<td>Hayley Ryder and Toby O'Neil</td>
<td>Supporting students</td>
<td>Growth mindset, maths resilience, drop out, retention, DU Live, forums, level 3</td>
<td>Growth mindset, maths resilience, drop out, retention, DU Live, forums, level 3</td>
<td>Ryder - Use of STACK to generate formative assessment for level 3 Pure mathematics</td>
<td>Sep-17</td>
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Hayley Ryder and Toby O’Neil

Does the provision of an ‘own working space’ for tutors enhance the learning experience for students?

Technologies for STEM learning

Online tuition, Adobe Connect, tutor-room approach, individual rooms, shared rooms

Ryder - Use of STACK to generate formative assessment for level 3 Pure mathematics
Jan-18 Jul-19

Bryan Singer and Rafa Hidalgo

Improving student engagement during online-only courses through the use of interactive question-embedded videos

Online/onscreen STEM practice

Online only modules, interactive, question-embedded, videos, educational tool, active learning

Singer - Teaching psychological concepts through Virtual Reality (VR)
May-18 Oct-19

Rachel Slater, Anne Campbell and Elaine McPherson

Accessibility and inclusion in STEM

Accessibility, inclusion, students with disabilities, tutors, distance learning, face-to-face tuition, online tuition

Slaymaker - Refining a framework for measuring qualification effects
Nov-17 Nov-19

Linda Thomson and Maria Velasco

The impact of live streaming module-wide events in student engagement and motivation

Technologies for STEM learning

Online, tuition, interactive labs, science community building, student engagement

Thomson joint PL - Online tutorial design: can we do better?
May-18 Apr-19

Janette Wallace and Hannah Giauci

Assessing the effectiveness of the induction process for Associate Lecturers in the School of Life Health and Chemical Sciences

Academic professional development

Associate Lecturers, ALs, induction, academic support, novice, working practice, practitioner, confidence

Giauci - Summer Series of Journal Clubs: an opportunity to develop employability skills and a sense of community amongst students in secure environments
May-18 Aug-19
Evaluating student perspectives of different types of learning events provided on SDK228, a level 2 LHCS module

Supporting students
Science, SDK228, Tutorials, interactive, enjoyment, engagement, informal, student success

Isabella Herrman (AL) and Claire Rostron (LHCS)

Assessing the effectiveness of the induction process for novice Associate Lecturers in the School of Life Health and Chemical Sciences in preparing them for the Associate Lecturer role

Does attendance at unrecorded online module-wide tutorials on a science module enhance student enjoyment, engagement and success? How might this impact tuition strategy for current and future LHCS modules?

Joint PI - Evaluating a new STEM AL induction programme

Apr-19 - Nov-21

Carlton Wood and Lynda Cook

Supporting students in online tuition from Access through the student journey

Online/onscreen STEM practice

Anactoria Clarke (WELS)

Supporting students
Learning outcomes, academic literacy, student journeys, student-student relationship

Steve Dutch (AL)

Jun-19 - Sep-20

Alan Yate

Supporting students in understanding the Learning Outcomes on courses in general and in T176, T192, T193, T194 in particular

Learning outcomes, academic literacy, student journeys, TMA

Anactoria Clarke (WELS)

Steve Dutch (AL)

Jun-19 - Sep-20

Yijun Yu and Anton Dil

Ask Programs Aloud - Making Programming Concepts Visually Accessible at a Distance

Technologies for STEM learning

Accessibility, voice interaction technology, AI, programming

Neil Smith, Joseph Ousade, Michel Wermelinger and Sue Trudy (C&C)

Neil Smith, Joseph Ousade, Michel Wermelinger and Sue Trudy (C&C)

Nov-17 - Apr-19
Argles - Evaluation of The OpenScience Implementation of lessons

Ongoing strategic collaboration with Brazilian institutions leading to further publications and study visits.

Lisa Bowers

This project involved further data analysis in relation to various aspects of the assessment in S207 - both continuous assessment and various exam components. Data from other modules in related areas was also examined. Results suggested that the difference in success between the genders in S207 could not be explained by the assessment strategy or other factors (e.g. online forum activity, gender of tutor) (Jordan et al., 2009). Demographic information given no obvious differences for women and men, except qualifications, but lack of feedback and gender of tutor in S207 was possibly important, and was inspected by the particular purpose and design and data collected for this to include the following areas:

- Assessment strategy with an emphasis on feedback and discussion.
- Support strategies, such as drop in, support, clinic, problem solving, skills focused sessions, assessment focused sessions.
- A greater variety of types of well signposted, small group tutorials, clearly defined in terms of expectations of active student participation, including drop in, support sessions.
- Opportunities for peer to peer ‘tutor less’ synchronous meetings.
- Complete integration of the tutorial provision within the online module materials - from the module planning stage onwards.
- Provision of large scale, high production value (potentially previously recorded) ‘lectures’ providing the additional ‘voice’ which explains key module concepts and gives the coverage many students crave.
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- Creative use of forum spaces to provide places for follow up asynchronous or synchronous discussion of online ‘lectures’ or other synchronous but large scale events.
- Opportunity for peer to peer ‘tutor less’ synchronous meetings.

Internally this project has led to the project team adding an online blog through University Hertfordshire (UH). It has also been placed in the project lead PhD thesis, as a major tool of haptic teaching. Papers have been submitted in national haptic conferences.

Supporting students.

- Modelling, mentoring, online experience.
- Induction Session has also been made available to all the students on the 2017 February start for entry level Mathematics & Statistics modules.
- Tool embedded in S209 Many of the students have since followed up their interest in haptics. Two specific areas of an MSc project (from a PhD student studying S207 Health Maths) and was inspected by the particular purpose and design and data collected for this to include the following areas:

- Assessment strategy with an emphasis on feedback and discussion.
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Externally this project has led to the project team adding an online blog through University Hertfordshire (UH). It has also been placed in the project lead PhD thesis, as a major tool of haptic teaching. Papers have been submitted in national haptic conferences.
During the course of the project work the C & C School replaced the subject Stage 1 60 credit module, TU100, with two 30 credit modules, TM111 and TM129. The pilot has established that a substantial number of students are keen to take part in an opportunity to start M140 on a more flexible basis prior to the typical module start. The second two findings of our project strongly support the decisions made by the School in replacing TU100. Visual programming to text-based programming. The first two findings of our project strongly support the decisions made by the School in replacing TU100. Visual programming to text-based programming. The first two findings of our project strongly support the decisions made by the School in replacing TU100. Visual programming to text-based programming. The first two findings of our project strongly support the decisions made by the School in replacing TU100. Visual programming to text-based programming. The first two findings of our project strongly support the decisions made by the School in replacing TU100. Visual programming to text-based programming. The first two findings of our project strongly support the decisions made by the School in replacing TU100. Visual programming to text-based programming. The first two findings of our project strongly support the decisions made by the School in replacing TU100. Visual programming to text-based programming. The first two findings of our project strongly support the decisions made by the School in replacing TU100. Visual programming to text-based programming. The first two findings of our project strongly support the decisions made by the School in replacing TU100.

5. The explanatory factor to be added to the predictive model is not “take part” but more critically being “offered a place and not taking up the place”. This is identified in a number of previous studies in higher education and is supported by a new data strategy for the OU, consideration should be given to providing this type of data in a format that it can be used to improve the predictive model.

6. Following discussions with ALs, colleagues in assessment, and the Board of Studies it was agreed that we would introduce an element of feedback into the modules for this year. The second two findings of this project contribute significant knowledge to the efficacy of running bridging courses for distance learning students. The finding that students who succeed “despite the odds” represent the majority of the student body suggests that the bridging courses can be an effective way of increasing retention.

8. In the light of current talk about flexibility of starts for students the project has provided some hard evidence of demand, as evidenced by assessment outcomes associated with unregistered students.

4. The cost involved was for 40 DL days and programme manager time to set up the website and Chair/project lead to develop and administer the programme. In 18J the typical module start was delayed. Students were offered the option of registering for this programme and the administration of the programme were simplified to 5 days. This meant that students could be offered the opportunity to submit the first two TMAs early and receive instant feedback before submitting the EMA in March if they wished.

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The overall intended outcomes are to inform strategies for helping student support teams guide students towards appropriate module choices and to provide new insights into student progression.

A prototype structural specification checking tool for Java was developed and tested on M250. In addition to a BlueJ plugin tool, a version of the software was provided with Online/onscreen STEM engagement, assessment, tutor guides, online, experience, intercultural, peers, online, students, feedback, online, experience, priority, and opportunities. One of the immediate outcomes of these focus round of observations, however ideas from both rounds continue to provide food for thought and benefit to the AL practice. We conclude, therefore, that the planned peer observation scheme has exceeded our initial expectations as well as being a novel approach to professional development initiatives within the academic community.

The biggest impact of this research is to provide a group of tutors a voice. It allows different module teams to learn more about how a group of tutors work together, and how they offer students additional support by creating additional materials. It has also been instructive in terms of exposing significant differences in OU Live practice.

Although there were some concerns expressed over the use of student-led feedback tools, we conclude the project has provided good evidence for the advantages of automated assessment of code quality in a variety of contexts.

Looking towards the future, a systematic survey of tuition practice, attitudes and experience could be established. Also, since the research has been carried out within the Faculty of STEM, it may be useful to extend this work to other faculties to uncover a more detailed and broader attitudes and practice of scholars from China, international computer-based online learning, languages, coding, progression, networking, social technologies, feedback, STEM tutorials, online, face-to-face, STEM engagement, assessment, tutor guides, online, experience, priority, and opportunities. One of the immediate outcomes of these focus round of observations, however ideas from both rounds continue to provide food for thought and benefit to the AL practice. We conclude, therefore, that the planned peer observation scheme has exceeded our initial expectations as well as being a novel approach to professional development initiatives within the academic community.

In conclusion, there are a number of key themes that carry over to successful observation and evaluation, from the experience of the tutors involved. Collaboration with the ALs has been very helpful in identifying and discussing these themes of making good observations. Collaborative work with the ALs is seen as an area of strong. Collaborative work with the ALs is seen as an area of strong. Collaborative work with the ALs is seen as an area of strong.

Online/onscreen STEM engagement, assessment, tutor guides, online, experience, priority, and opportunities. One of the immediate outcomes of these focus round of observations, however ideas from both rounds continue to provide food for thought and benefit to the AL practice. We conclude, therefore, that the planned peer observation scheme has exceeded our initial expectations as well as being a novel approach to professional development initiatives within the academic community. On the basis of the success of this round of observations, however ideas from both rounds continue to provide food for thought and benefit to the AL practice. We conclude, therefore, that the planned peer observation scheme has exceeded our initial expectations as well as being a novel approach to professional development initiatives within the academic community.

Understanding on-line teaching practice: the observation of learning to program at level 2. To conclude, there are a number of key themes that carry over to successful observation and evaluation, from the experience of the tutors involved. Collaboration with the ALs has been very helpful in identifying and discussing these themes of making good observations. Collaborative work with the ALs is seen as an area of strong. Collaborative work with the ALs is seen as an area of strong. Collaborative work with the ALs is seen as an area of strong.

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The biggest impact of this research is to provide a group of tutors a voice. It allows different module teams to learn more about how a group of tutors work together, and how they offer students additional support by creating additional materials. It has also been instructive in terms of exposing significant differences in OU Live practice.

Although there were some concerns expressed over the use of student-led feedback tools, we conclude the project has provided good evidence for the advantages of automated assessment of code quality in a variety of contexts.

Looking towards the future, a systematic survey of tuition practice, attitudes and experience could be established. Also, since the research has been carried out within the Faculty of STEM, it may be useful to extend this work to other faculties to uncover a more detailed and broader attitudes and practice of scholars from China, international computer-based online learning, languages, coding, progression, networking, social technologies, feedback, STEM tutorials, online, face-to-face, STEM engagement, assessment, tutor guides, online, experience, priority, and opportunities. One of the immediate outcomes of these focus round of observations, however ideas from both rounds continue to provide food for thought and benefit to the AL practice. We conclude, therefore, that the planned peer observation scheme has exceeded our initial expectations as well as being a novel approach to professional development initiatives within the academic community. On the basis of the success of this round of observations, however ideas from both rounds continue to provide food for thought and benefit to the AL practice. We conclude, therefore, that the planned peer observation scheme has exceeded our initial expectations as well as being a novel approach to professional development initiatives within the academic community.
The OpenWASH modules can be used and adapted for WASH projects around the world, supporting the United Nations' Sustainable Development Goal to achieve safe drinking water and adequate and equitable sanitation and hygiene for all by 2030.

The planned next phase is to extend the benefits of OpenWASH to a wider audience in other countries. As OERs, the OpenWASH modules can be used and adapted for WASH projects around the world, supporting the United Nations' Sustainable Development Goal to achieve safe drinking water and adequate and equitable sanitation and hygiene for all by 2030. The OpenWASH resources are available at: http://www.open.edu/openlearnworks/OpenWASH

The recommendations include some suggestions for possible implementation.

6. Establish an OpenWASH user network
5. Promote use of Count me in! Inclusive WASH in Ethiopia
4. Clarify links between OpenWASH and Occupational Standards
3. Clarify links between OpenWASH and Occupational Standards

The report concludes with a set of recommendations for possible future activities to further develop the impact of OpenWASH in Ethiopia. The recommendations are:

There is considerable scope for expanding the use of OpenWASH by wider dissemination to more colleges and to other potential users. The interviews revealed that OpenWASH has been highly successful and had a positive impact on WASH teaching and training in Ethiopia. All current users were enthusiastic about the modules, and under the added dimension and relevance that OpenWASH has provided there is considerable scope for expanding the use of OpenWASH by wider dissemination to more colleges and to other potential users.

The report concludes with a set of recommendations for possible future activities to further develop the impact of OpenWASH in Ethiopia. The recommendations are:

- Established OpenWASH in all colleges
- Possible track of Training of Trainers events
- Early links between OpenWASH and Occupational Standard
- Extended use of OpenWASH in all colleges
- Further evidence of the OpenWASH model across other modules
- Complete translation work

The recommendations include some suggestions for possible implementation.

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Understanding and improving strategies for promoting participation in Three OU Modules (TBC) — Topic process to Identify and address perceptions of inclusivity, disabled differences, science concepts, technological advancements.

Mar-17

In student experience, the research found that the experience of the students taking part was similar to that which has been reported of the majority of Open University students.

Dec-14

The need for good quality remote access to meetings in Milton Keynes on a routine basis is a non-managerial part of their role. More importantly it would ensure that Staff Tutors were always visible, connected with central campus, had the same training and development opportunities as the management team, and were able to be part of the academic programme.

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The issues raised by this small-scale study into peer observation for online synchronous tuition need to be considered in the wider context of providing all development for lifelong learning.

It was found that few students seriously used diagrams before their study of the modules; that they were either enthusiastic or sceptical about their value.

July-13

Many students and ALs have a poor understanding of our assessment strategies, including conventional summative continuous assessment. This is in line with a regularly found result that students have poor understanding of the volume and function of assessment. This evidence has been here to support a number of suggestions for further investigation. However, it is not felt that this has been carried in order to maintain a number of assessment. However, it is not felt that this has been carried in order to maintain a number of assessment.

Frances Chetwynd (C&C) and Helen Jefferis (AL)

The findings suggest that personal profiles and photos in Moodle forums helped some students to feel in touch with each other. Others, however, did not.

The discussion and examples on VFTs in this and other sections of the report are from Geography, Geology, Environmental Sciences and Biology - disciplines that have a long tradition of physical fieldwork and first-hand experience of phenomena out-of-doors - and these disciplines have been our employability concerns, and maximisation of both student and tutor skills as well as specific tools that could support students' employability. The use of two components contributing to the "overall examinable score" (OES), e.g. an assessment model and an experimental election, seems a sensible way forward, with the formation of multidisciplinary groups helping students to prepare for final components.

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The revise and refresh for MST224 site has now been augmented to cover revision for students preparing to study MST125: Essential mathematics 2 and assessment analytics of Jan-16. The significant findings from the project will inform future curriculum developments – case studies need to reflect the spectrum of prior experience of all students. The interviews confirmed the anecdotal evidence that students felt more positive about studying practical science online after they had studied the pilot course. We are currently liaising with two teams within the School of Mathematics and Statistics who are creating further R&R sites, one for level 3 mathematics and statistics (M248: Analysing data).

As a result of the analysis of student mistakes in the TMA question on argument mapping, material for a tutorial session was developed for the TU100 day in 2019. Along with revise and refresh for MST124, this suite of resources will then cover the majority of the modules for the mathematics and statistics students, not only those who already work in engineering roles. A significant component of the revise and refresh has been the real-time updating of content to include new developments in the field of environmental monitoring. Two of the apps were tested by a large number of students and are now available for others to use.

As a result of these investigations, some adjustments to the placement of the quizzes in the Study Calendar and to the structure of the self-reflection section.

An amended item on 15J website in real time. Mark amended items by crossing through title on link.

1) Linking to a Virtual Microscope screencast much earlier in the module.
2) Moving one of the more difficult blocks later in the module.
3) Including link to Studying online in StudentHome in the module guide.
4) Adding document giving advice to students from students on the 14J presentation.
5) Adding ‘Are you ready for’ quiz to website.
6) Spelling out exactly what students are supposed to study each week and giving an estimate of time taken.
7) Noting in the Study guide for each block which activities need to be studied online.
8) Providing print on demand.
9) Any other suggestions of a protocol for managing the site and adding links.

The use of smart phones to enhance student motivation, interpretation, representation, visual annotate, online notes, LiteMap, online quizzes, TMAs and environmental science quizzes.

The apps, many of which are free, can be incorporated into the teaching of environmental engineering, environmental science, and environmental science skills. The apps can be used to enhance communications on new data that can be uploaded to a cloud server and can then be available for others to use.

A novel type of iCMA question was implemented (using OpenMark) and deployed in TU100 (~2000 students per presentation) and is still in use.

Innovative assessment, support students online/onscreen STEM, equality, diversity and inclusion, argumentation education, gender students, difference, Deaf Students (S382, SXP288, SXHL288, S141, S155, T868, S206, S209, S215, S230, S255).

Gathering student perception about online/distance practical science when it suited them and that they were able to design experiments and draw conclusions from experiments with other distance learners.

An amended item on 15J website in real time. Mark amended items by crossing through title on link.

1) Introduction of a template for navigating the site and making notes.
2) Amended items on 15J website in real time. Mark amended items by crossing through title on link.

Supporting students online/onscreen STEM, equality, diversity and inclusion, argumentation education, gender students, difference, Deaf Students.

This report has shown that there are several apps available that can be used in the field of environmental monitoring. Two of the apps were tested by a large number of students.

Arts and Humanities student participation in the University Games and Careers and Employability to encourage student placements, Women’s Engineering Society student group established.

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The participants in this study told us that students prefer to receive the majority of their communications from the open university rather than tutor-led sessions. Whilst some feel that there is a need for more personalisation in the messages we send, many are happy to filter the messages themselves and follow which are relevant.

Students in all three of our sample groups underestimated the number of email communications they receive from the university, especially in relation to checking spam filters going through a high number of messages being moved. Many students reported that they filter the messages themselves, which may account for the perceived lack of reading messages. Despite the lack of awareness of the volume of messages being received, students are happy to filter the messages themselves and follow which are relevant.

Recommendations:
1. Further work should be carried out to evaluate the effectiveness of our email communications.
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4. Further work should be carried out to evaluate the effectiveness of our email communications.
Our project was mainly focussed on volunteer engagement and learning. Our feedback questionnaires and volunteer engagement surveys highlighted the value of online tools to support learning and engagement. However, the feedback also highlighted the need for enhanced peer review and self-assessment. In order to enable volunteers to learn, we need to embed self-assessment and peer feedback into the teaching environment to promote engagement in the learning experience for students.

The above findings suggest that students may be more likely to engage with formative assessment in the form of online practice questions if they believe it can feel more confident if given plenty of opportunity to self-test on resources specifically designed to mimic examinations.

These results will be disseminated and will inform the development of other similar quizzes. In addition similar techniques could possibly be used to create FITS, a scaffolding tool for Level 3 questions.

Our data is used in S396 to allow students to develop analytical skills of exploring data and using statistics to draw conclusions. This project was listed in the REF submission as engaging the wider public in research where it formed part of an impact statement that was used as an example for others to follow.

This project was listed in the REF submission as engaging the wider public in research where it formed part of an impact statement that was used as an example for others to follow.
The design of activities involving OpenStudio should take account of the following recommendations:

- Students should be provided with guidance on giving feedback to their peers, and frequently have to evaluate the feedback they receive from their peers.
- Students need time to develop their confidence and skills in offering constructive feedback to their peers. Confidence increases with the student's experience of giving feedback.
- Peer-assessment skills are particularly important for students carrying out activities in OpenStudio where students are independent in each other for feedback, so they need advice on these skills.
- During the initial stages of conducting students in a specific form is essential to ensure that students receive feedback on an appropriate form.
- The learning should take account of both experimental reports so that students have an opportunity to review them in form after form. The information on the feedback they receive is reviewed.
- Finally, OpenStudio offers a means of combining andreading digital artifacts for the duration of a module so students can look back on their work. However, it is not possible currently for students to carry out their work in OpenStudio to see and assess their back. This might be something to consider for further development of OpenStudio in future.

The findings from this project are feeding into discussions with the Director of Teaching to influence tuition policy.

The emphasis should be on increasing flexibility within the tuition strategies, to enable ALs to develop and work within a community of shared professional practice.

As expertise develops and evidence of effectiveness of decisions is collected, this should be disseminated across and beyond the school so that future students are not to have a review with every presentation.

If under GTP we continue to review module tuition strategies, it is important to allow strategies to stabilize and the tutors to develop their practice, and about how best to design tuition strategies. Some changes appear to have been influenced by what other module teams were doing.

The resulting changes to the tuition strategies varied from module to module. Not all changes were a result of the AL feedback. Module teams and staff tutors continue to develop their own views in the light of experience they had gained and some feedback was about other aspects of the AL role. The resulting changes to the tuition strategies varied from module to module.

Three consortia have been formed to take on specific ideas to their next stage of development. The outcomes of the work of the working groups within the workshop format, to allow both to share their feedback on early developments and to support systematic involvement.

All have not attempted to define the total cost of applications that can be developed. We are repeating whether the aspects we have developed can be successfully used to address more specific NBS problems (such as educational applications) as part of a final presentation of the NBS approach in STEM.

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They feel the team from this project are entering into discussions with the Director of Teaching to influence tuition policy. Discussions will continue to evolve in aspects of module tuition so as to enhance the experience of the students.

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Carlton Wood and Steve Walker
Piloting OU Analyse and the Student Probabilities Model on 12 STEM Modules

Supporting students: Statistical, clustering, analysis, prediction, retention, early alert indicators, student data

EEES & C&C
Maria Kantirou (STEM Deanery), Tom Olney (STEM Deanery), Cheryl McAndrew (M&S), and Mandy Honeyman (AL)

Walker - Infinite Bandwidth Zero Latency – IBZL2
Wood - Assessing and supporting student experience of synchronous online tuition

May-17
Aug-19

Recommendations:
1. Learning analytics should be considered as one option in a range of retention strategies.
2. Learning analytics should be considered as one way to initiate conversations between tutors, students, and module teams about students at risk.
3. The timing and content of training provided to tutors and module teams needs to be reviewed.
4. The development of new learning analytics dashboards and the strategies and guidance that accompany the tools, should be developed through consultation with tutors and examining module teams.
5. The flex module teams available, module teams should make use of TMA submission scores and VLE engagement data available to tutors before introducing OUA PLA on second presentation onwards if required.
6. Further research into uses for the OUA PLA should be undertaken, particularly in the field of producing static learning design visualisations.

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John Woodthorpe
An investigation into the use of Artificial Neural Networks to predict student failure, and the efficacy of sustainable additional support for those students

Supporting students: Artificial Neural Networks, predictive modelling, OU Analyse, tutor contact, retention, progression

TU100
C&C
Chris Dobbyn, Frances Chetwynd (C&C) and Helen Jefferis (AL)

Joint PL - How students' use of language relates to learning, retention, and performance in assessment on TU100: Implications for learning design, assessment strategy, and tuition practices in the MCT faculty

Innovative assessment
Language, learning, retention, assessment, tuition practices, linguistic analysis

TU100
C&C & WELS
Nel Boswood, Caroline Coffin, Qian Kan, Sarah Mukherjee (WELS), Val Hancock, Mandy Honeyman, Cheryl McAndrew, Heather Morris (ALs)

Jim Donohue joint PL until 31 Jul 15

Dec-13
Mar-16

Interest in this project from within the STEM Faculty and elsewhere in the University has been driven by the potential improvements in student retention and completion. That interest has been split between the use of neural networks to improve and personalise our support for students. The project has been very timely, indeed it anticipated most of the current interest and has been a pathfinder for aspects of improving retention and support. Now the project has finished, the work has been taken up by the STEM Faculty, who are funding its continuation on the remaining presentations of TU100. This support includes determining the feasibility of training others to use the neural networks on TU100 and on other modules.

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John Woodthorpe and Jim Donohue
How students' use of language relates to learning, retention, and performance in assessment on TU100: Implications for learning design, assessment strategy, and tuition practices in the MCT faculty

Innovative assessment
Language, learning, retention, assessment, tuition practices, linguistic analysis

TU100
C&C & WELS
Nel Boswood, Caroline Coffin, Qian Kan, Sarah Mukherjee (WELS), Val Hancock, Mandy Honeyman, Cheryl McAndrew, Heather Morris (ALs)

Jim Donohue joint PL until 31 Jul 15

Dec-13
Mar-16

Professional development for the 4-6 MCT ALs involved, and for the MCT and language central academics. Development of improved means of producing and providing products which reflects MCT retention and assessment strategies.