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<th>No.</th>
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<th>School(s)/Unit(s)</th>
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<th>Other eSTEeM projects as PL</th>
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<tr>
<td>1</td>
<td>18W-AA-GC-01</td>
<td>Adeola Adeliyi</td>
<td>Pair Programming as a tool to enhance teaching and learning of programming at a distance</td>
<td>Technologies for STEM learning</td>
<td>Pair Programming, remote pair programming, extreme programming, teaching programming at a distance</td>
<td>TM112, TM129, M216, M219</td>
<td>E&amp;C</td>
<td>Michel Wermelinger (E&amp;C), Jon Rosewell (E&amp;C) and Karen Kear (E&amp;C)</td>
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<td>Oct-19</td>
<td>Mar-21</td>
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<td>2</td>
<td>18F-FACH-EEES-01</td>
<td>Fiona Aiken and Chris Nutton</td>
<td>Student development and perceptions of employability skills in stage 1 science</td>
<td>Employability</td>
<td>Employability, skills development, radar diagrams, self-assessing</td>
<td>S112</td>
<td>EEES</td>
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<td>Nov-18</td>
<td>Sep-20</td>
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<td>3</td>
<td>17K-LAAL-SPS-01</td>
<td>Laura Alexander and Alexis Lansbury</td>
<td>An investigation into how STEM students use learning resources in different formats, and how this use develops over time</td>
<td>Supporting students</td>
<td>Online, onscreen, modules, digital, learning resources, interaction, study, student engagement, print materials, retention</td>
<td>S117, MST224, M250</td>
<td>SPS</td>
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<td>4</td>
<td>19J-LALTVN-SPSLOEES-01</td>
<td>Laura Alexander, Linda Thomson and Vic Nicholas</td>
<td>SiSE only tutor groups and the effect on SiSE students and their tutors</td>
<td>Equality, diversity and inclusivity</td>
<td>Students in secure environments, SiSE, Tutor Allocation, S111, Supporting students</td>
<td>S111</td>
<td>SPS, LHCS, EIES</td>
<td>Tom Wilks, Laura Dalton, Sibhan McGuigan, Trevor Scott, Jane Kendal-Nicholas (ALs)</td>
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<td>20G-PA-EEES-01</td>
<td>Pallavi Anand</td>
<td>Assessing role of STEM PhD students as teaching assistant in distance learning environment</td>
<td>Supporting students</td>
<td>PhD students, mentoring, employability, teaching experience</td>
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<td>EEES</td>
<td>Fiona Aiken (TBC)</td>
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<td>19F-LBMW-CC-01</td>
<td>Leonor Barroca and Matt Walkley</td>
<td>Understanding the profile of apprentices</td>
<td>Employability</td>
<td>Student profile, apprentices, diversity</td>
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<td>E&amp;C</td>
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This page provides a list of projects in progress for July 2020, detailing the project leaders, titles, themes, keywords, modules involved, schools/units, other staff involved, other eSTEeM projects as PL, start dates, and estimated end dates.
<table>
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<tr>
<th>No.</th>
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<th>Project Name</th>
<th>Description</th>
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<td>1</td>
<td>17E-JB-LHCS-01</td>
<td>John Baxter</td>
<td>Evaluation of onscreen notetaking tools</td>
<td>Online/onscreen STEM practice</td>
<td>May-17 Jul-20</td>
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<td>18A-JB-LHCS-01</td>
<td>James Bowen and Stephen Jones</td>
<td>Supporting students</td>
<td>Online/onscreen STEM practice</td>
<td>Jan-18 Sep-20</td>
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<td>18K-OB-CC-01</td>
<td>David Bowers</td>
<td>Evaluation of service management simulation activities</td>
<td>Online/onscreen STEM practice</td>
<td>Nov-18 Dec-21</td>
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<td>4</td>
<td>18K-LRB-MS-LHCS-01</td>
<td>Lesley Boyd and Rob Bowers</td>
<td>Using technology-enabled learning networks to drive module improvements in STEM</td>
<td>Online/onscreen STEM practice</td>
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<td>5</td>
<td>18E-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>
<td>Online/onscreen STEM practice</td>
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<td>6</td>
<td>19J-VB-KMI-01</td>
<td>Venetia Brown</td>
<td>Associate Lecturers’ Involvement in Improved Practice in a SXPS288 Labcast Delivery</td>
<td>Online/onscreen STEM practice</td>
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<td>7</td>
<td>20C-CCRH-MS-01</td>
<td>Carol Calvert and Rachel Hilliam</td>
<td>How one module can serve multiple qualifications through tailored implementation of assessment</td>
<td>Online/onscreen STEM practice</td>
<td>Mar-20 Jul-21</td>
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<td>18-ACMAARIE ASSPSEI-01</td>
<td>Anne Campbell, Mark Jones and Anne-Marie Gallen</td>
<td>Perceptions, Expectations and Experience of Group Tuition: towards a shared understanding amongst stakeholders (part II: the student perspective)</td>
<td>Supporting students: Tuition, group tuition, tuition policy, GTP, teaching model, student attitudes, student perceptions. S111, T132, T133, SM123</td>
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<td>Academic Services, SPS and E&amp;I</td>
<td>Perceptions, Expectations and Experience of Group Tuition: towards a shared understanding amongst stakeholders Campbell joint PL - Accessibility and inclusion in tuition (AccIT)</td>
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<td>Jones - Developing practice in online synchronous tuition by peer observation, feedback and reflection</td>
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<td>Jones - Online Team Investigations in Science (OTS)</td>
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<td>Joint PL - Evaluation of Assessment and Tuition Changes for S284 Astronomy</td>
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<td>Gallen joint PL - Evaluating the level 1 engineering tuition resource</td>
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<td>Gallen joint PL - Factors influencing female participation in Physical Science Postgraduate Research Programmes</td>
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<td>19F-MC-LO6-01</td>
<td>Michael Collins</td>
<td>Podcast impact: Measuring the effects of syndicated versus inline long-form audio in Open University distance learning content</td>
<td>Technologies for STEM learning: Podcasts, audio, educational media, student support, module content</td>
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<td>20C-TCSE- KMiEEE-01</td>
<td>Trevor Collins and Sarah Davies</td>
<td>Disseminating inclusive field teaching—sharing resources and practices across disciplines and institutions</td>
<td>Equality, diversity and inclusivity: Inclusive teaching and learning; fieldwork education; scholarship; translation; scholarship impact</td>
<td>S206, S209</td>
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<td>19S-SCRNCH- LHCS-01</td>
<td>Simon Collinson, Rachel McMullan and Catherine Halliwell</td>
<td>Can a new OU Study App enhance the learning experience of students on S350, an online-only module?</td>
<td>Supporting students: Online, distance learning, innovations, supporting students, flexible study</td>
<td>S350</td>
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<td>19L-DCCGJH-CC-01</td>
<td>David Conway, Chris Gardner and Janet Hughes</td>
<td>Are virtual insight visits an effective way of engaging learners and supporting student retention in distance learning environments?</td>
<td>Supporting students: Enabling participation, employability, student support, student satisfaction, virtual field trips, virtual visits, student programme retention</td>
<td>T227, TMX111, TMX132, TMX139, TMX1120, TMX125, TY122</td>
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<td>Hughes joint PL - Investigating the perceived benefits to computing students of remote pair programming</td>
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<td>E1-C2CDB-LHCS-01</td>
<td>Lynda Cook and Diane Butler</td>
<td>Monitoring student behaviour on a level 1 Science module using a multidisciplinary team approach</td>
<td>Retention, progression, level 1, SST, MLLS interventions, student behaviour</td>
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<td>E1-EC/ECAB-LHCSDD-01</td>
<td>Eleanor Crabb, Nick Chatterton and Kate Bradshaw</td>
<td>Developing responsive approaches to enhance personalized learning in S315</td>
<td>Personalised learning, teaching assets, media, videos, Camtasia, screencasts, Adobe Connect, online best practice guide</td>
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<td>21</td>
<td>E1-ECIL-LHCS-01</td>
<td>Eleanor Crabb and Jane Loughlin</td>
<td>Improving success and satisfaction of credit transfer students entering L3 modules in Science</td>
<td>Credit transfer, level 3, student support, distance learning, transition</td>
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<td>D10-SCAPGG-MS-03</td>
<td>Developing students and tutors perceptions of good mathematical communication on level one service mathematics module MU123: an investigation. Employability Good mathematical Communication, marking grid, focus groups, service teaching. E0123 M&amp;S Crighton - Leading the way as a hydrogen nation in Scotland – supporting student transitions within a strategic partnership between Glasgow Clyde College, The Open University in Scotland and Heriot-Watt University Crighton - Using peer observation within a Mathematics and Statistics community of practice in Scotland Potter and Golding - Associate Lecturer Reflections on Student Perceptions of Usefulness of Level 1 Service Mathematics Apr-19 - Oct-20</td>
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<td>20E-SDLW-LHCS-01</td>
<td>Evaluation of T-Flag student accessibility to and use of online tutorials and forums in 3 modules. Equality, diversity and Inclusivity Online tutorials, forums, participation, disability, accessibility. SK299, S294 LHCS May-20 - Apr-21</td>
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<td>18J-SD-EEES-01</td>
<td>Place-making and student identity in fieldwork learning. Supporting students Fieldwork, student identity, conceptions, community of practice, place-based education. SXF206 EEES Oct-18 - Jun-21</td>
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<td>27</td>
<td>19I-SEWGMM-CC-01</td>
<td>Strategies to support students and tutors with online collaborative projects: an action research project. Supporting students Online collaborative learning, distance learning, teaching strategies, anxiety. C&amp;C Sep-19 - Dec-20</td>
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<td>28</td>
<td>19J-JFJW-WELSCC-01</td>
<td>Supporting student academic skills development - an evaluation of an English for Academic Purposes pilot. Supporting students Academic skills development, English for Academic Purposes, individual support sessions, student experience, student performance, student retention, student support. KELS and C&amp;C Woodthorpe - An investigation into the use of Artificial Neural Networks to predict student failure, and the efficacy of sustainable additional support for those students Woodthorpe 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 Oct-19 - Mar-21</td>
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<td>19 J-HGJW-LHCS-02</td>
<td>Hannah Gauci and Janette Wallace</td>
<td>Measuring 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</td>
<td>Equality, diversity and inclusion, Study skills, offender learning, students in prison, supporting students, online practice</td>
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<td>Oct-19</td>
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<td>19 J-NG-CC-01</td>
<td>Nigel Gibson</td>
<td>Do they know what they are doing? A review of IT use by prison-based students</td>
<td>Equality, diversity and inclusivity, Study skills, offender learning, students in prison, supporting students, online practice</td>
<td>Mike Richards (C&amp;C) and Jon Rosewell (C&amp;C)</td>
<td>Oct-19</td>
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<td>19 J-DG-CC-01</td>
<td>Daniel Gooch</td>
<td>Teaching distributed computing using Raspberry Pi clusters at a distance</td>
<td>Technologies for STEM learning, Raspberry Pi cluster, distance learning, distributed architectures, parallel, CS education</td>
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<td>18 E-AC-EI-01</td>
<td>Alec Goodyear</td>
<td>Evaluating the impact of a qualification-based approach to student engagement and success in engineering study</td>
<td>Supporting students, Student success, engagement, progression, teaching quality assessments, TEF, assessment and tuition groups, personal development planning, professional skills, peer interactions</td>
<td>Carol Morris (E&amp;I), Sally Organ (E&amp;I), Zahra Golrokhi (E&amp;I) and Maria Kantirou (CIO Portfolio)</td>
<td>May-18</td>
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<td>19 E-CHCB-LHCSOUSA-01</td>
<td>Catherine Halliwell and Cath Brown</td>
<td>How are students using extensions and what is the impact on success?</td>
<td>Supporting students, Study intensity, TMA, extensions, modules, assessment, full time study, flexible study, student success</td>
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<td>19 E-CHDE-LHCSSTPSEEES-01</td>
<td>Catherine Halliwell and Jenny Duckworth</td>
<td>Can an asynchronous student conference in Open Studio develop students’ critical evaluation skills?</td>
<td>Supporting students, Asynchronous, OpenStudio, evaluation skills, peer-to-peer feedback, online assessment, professional skills</td>
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<td>17 E-JH-LHCS-02</td>
<td>Janet Haresnape</td>
<td>Skills progression in practical science within the Life Sciences</td>
<td>Employability, Employability, skills progression, practical skills, problem solving, Life Sciences pathway</td>
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<td>19H-HH-SPS-01</td>
<td>Holly Hedgeland</td>
<td>Concept inventories in physics: from development to impact</td>
<td>Equality, diversity and inclusivity</td>
<td>SPS, Sally Jordan (SPS)</td>
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<td>19K-CH-CE-04</td>
<td>Stem Herman</td>
<td>Developing a strategy for an LGBT+ inclusive STEM Faculty</td>
<td>Equality, diversity and inclusivity</td>
<td>S&amp;C, Nacho Romero (STEM Deanery)</td>
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<td>38</td>
<td>19D-CH-WELS-02</td>
<td>Christothea Herodotou</td>
<td>Evaluating the design of the virtual microscope with students</td>
<td>Online/onscreen STEM practice</td>
<td>WELS, Eileen Scanlon (WELS)</td>
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<td>39</td>
<td>19E-RH-MS-03</td>
<td>Rachel Hilliam</td>
<td>The Mathematics and Statistics Community of Learners</td>
<td>Supporting students</td>
<td>M&amp;S, Gaynor Armistead (KMi), Alexander Saldam (AL), Derek Goldrei (AL) and Cath Brown (JUSA)</td>
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<td>19D-MH-KMI-01</td>
<td>Martin Hlosta</td>
<td>Disproved predictions of at-risk students: Some students fail despite doing well, others succeed despite predicted as at-risk</td>
<td>Supporting students</td>
<td>KMi, Christothea Herodotou (WELS) and Jakub Kocvara (KMI)</td>
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<td>19E-GH-EI-01</td>
<td>Georgy Holden</td>
<td>Qualification Study websites: quality and practice</td>
<td>Supporting students</td>
<td>E&amp;I, Derek Jones (E&amp;I) and Nicole Lotz (E&amp;I)</td>
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</table>
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42 19J-JH-CC-01 Janet Hughes and Ann Walsh
Investigating the perceived benefits to computing students of remote pair programming
Supporting students: Peer programming, learning communities, employability, student satisfaction
TE112, TM129, S250
C&C
Brendan Murphy and Robert Law (ALs)
Walsh joint PL - Perceptions, Expectations and Experience of Group Tuition: towards a shared understanding amongst stakeholders
Walsh joint PL - Towards A Structured Process for Involving ALs in Module Tuition Strategy Design and Review
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Mar-21

43 18J-JH-CC-01 Jim Iley
The S112 assessment strategy: student behaviour and subsequent success in higher level study
Innovative assessment: Single component assessment, SCA, OES, examinations, assignments, TMAs, higher study, student behaviours, retention, progression
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L&CS
Nick Adams (STEM Deanery)
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Sep-20

44 19J-HJ-CC-01 Helen Jefferis
All change, but does tuition in cluster groups work?
Supporting students: Tuition, cluster groups, level 1, digital experience
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C&C
Chris Gardner and Frances Chetwynd (C&C)
Joint PL - Visualising the code: are students engaging with programming at level 1?
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45 20J-CL-CC-01 Barbara Jones
Online module forums: espoused, actual and improved
Supporting students: Forums, asynchronous discussion groups, tutor interventions, peer-to-peer interactions, tutor-peer interactions
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E&I
Jul-19
Jul-20

46 19F-MJ-SPS-01 Mark Jones
Online Team Investigations in Science (OTIS)
Supporting students: Online, teaching, team, investigations, student engagement, peer-learning, assessment strategies, Mars Rover simulation, robotic telescope
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SPS
Susanne Schwenzer, Ulrich Kolb, Judith Croston and Sheona Urquhart (SPS)
Developing practice in online synchronous tuition by peer observation, feedback and reflection
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47 20F-MJHF-SPS-01 Mark Jones and Helen Fraser
Evaluation of Assessment and Tuition Changes for S284 Astronomy
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SPS
Olivia Rowland and Rafa Hadigo (LOI)
Jones - Developing practice in online synchronous tuition by peer observation, feedback and reflection
Jones - Online Team Investigations in Science (OTIS)
Jones joint PL - Perceptions, Expectations and Experience of Group Tuition: towards a shared understanding amongst stakeholders
June-20
Dec-21
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<th>Academic Year</th>
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<td>20E-CKPS-12</td>
<td>Single component assessment on Level 1 science modules: a quantitative and qualitative evaluation of the assessment journey from TMA to Feedback</td>
<td>Claire Kotecki and Prithvi Shrestha</td>
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<td>20D-SKMMC-CC-01</td>
<td>Using Bitesize Videos to Enhance Students’ Experiences in a Level 2 Programming Module</td>
<td>Soraya Kouadri Mostéfaoui, Marina Carter and Mark Hall</td>
<td>Supporting students</td>
<td>Programming, visual programming, video tutorial, student engagement, retention.</td>
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<td>20E-ALCTAH-CC-01</td>
<td>Degree Apprenticeships: Embedding learning in the practice-tutor, apprentice, employer tripartite</td>
<td>Alexis Lansbury, Chris Thomson and Andy Hollyhead</td>
<td>Empowerability</td>
<td>Apprenticeships; practice-tutor; quality assurance and enhancement; evaluation</td>
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<tr>
<td>Project Code</td>
<td>Project Title</td>
<td>Project Description</td>
<td>Technologies for STEM learning</td>
<td>Supporting students</td>
<td>Key Personnel</td>
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<tr>
<td>52</td>
<td>20F-HL-EI-01</td>
<td>Helen Lockett</td>
<td>An investigation into the breadth of learning outcomes and skills developed in OpenSTEM Labs experiments</td>
<td>Remote laboratories, online laboratories, OpenSTEM Labs, learning outcomes, practical work</td>
<td>E&amp;I</td>
</tr>
<tr>
<td>53</td>
<td>20F-EMKN-LHCS-02</td>
<td>Fiona Moorman, Karen New</td>
<td>STEM IS55 - Where are we now? Evaluating efficiency, usage and effectiveness of individual student support sessions</td>
<td>Supporting students</td>
<td>E&amp;I</td>
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<tr>
<td>No</td>
<td>Ref.</td>
<td>Name</td>
<td>Project Title</td>
<td>Details</td>
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<tr>
<td>59</td>
<td>19F-DMDK-CC-01</td>
<td>David Morse and David King</td>
<td>Visualising student journeys</td>
<td>Supporting students</td>
<td>Visualisation, student journey, qualification pathways, network diagrams, Sankey diagram</td>
</tr>
<tr>
<td>60</td>
<td>20E-VM-WELS-01</td>
<td>Victoria Murphy</td>
<td>Students' support networks during lockdown</td>
<td></td>
<td>Social network analysis; student support; mental health; COVID-19; longitudinal</td>
</tr>
<tr>
<td>61</td>
<td>19F-KNFMHG-LHCS-01</td>
<td>Karen New, 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>Employment, employability, community, retention</td>
</tr>
<tr>
<td>62</td>
<td>19J-TO-STEMD-01</td>
<td>Tom Olney</td>
<td>Measuring the Impact of Learning Design and Course Creation (LDCC) Workshops on Chinese OU Institutions and the Open University</td>
<td>Academic professional development</td>
<td>Learning Design, course creation, professional development, impact, China, international engagement, pedagogy research</td>
</tr>
<tr>
<td>63</td>
<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</td>
<td>Personalised support, student engagement, student profiling, online tools, Slack, staff-student interaction</td>
</tr>
<tr>
<td>#</td>
<td>Code</td>
<td>Principal Investigators</td>
<td>Title</td>
<td>Technologies for STEM Learning</td>
<td>Supporting students</td>
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<tr>
<td>01</td>
<td>19F-PPSS-CC-01</td>
<td>Paul Piwek and Simon Savage</td>
<td>Student co-design of confidence-building, formative assessment</td>
<td>Innovative assessment</td>
<td>In progress</td>
</tr>
<tr>
<td>02</td>
<td>19F-SP-EI-01</td>
<td>Johannes Pasma</td>
<td>Comparison study of distance teaching of Electronics using simulation software versus OpenEngineering Laboratory</td>
<td>Technologies for STEM Learning</td>
<td>In progress</td>
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<tr>
<td>03</td>
<td>19E-APGG-MS-01</td>
<td>Andrew Potter and Barry Golding</td>
<td>Supporting students' perceptions of usefulness of Level 1 Service Mathematics</td>
<td>Technologies for STEM Learning</td>
<td>In progress</td>
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<tr>
<td>04</td>
<td>19J-APCB-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</td>
<td>In progress</td>
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<tr>
<td>05</td>
<td>19J-APCB-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</td>
<td>In progress</td>
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<tr>
<td>06</td>
<td>18F-NPSCECRJ-LHCS-01</td>
<td>Nicholas Power, Simon Collinson, Eleanor Crabb and Rob Janes</td>
<td>Online remote experiments in Chemistry: proof of concept study</td>
<td>Online/onscreen STEM practice</td>
<td>In progress</td>
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<tr>
<td>07</td>
<td>18F-NPSZCRS-LHCS-01</td>
<td>Nicholas Power, Simon Collinson, Eleanor Crabb and Rob Janes</td>
<td>Online remote experiments in Chemistry: proof of concept study</td>
<td>Online/onscreen STEM practice</td>
<td>In progress</td>
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<tr>
<td>08</td>
<td>18F-RQ-EI-01</td>
<td>Rongshan Qin</td>
<td>Visual Interactive Learning of Engineering Concepts</td>
<td>Technologies for STEM Learning</td>
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<td>09</td>
<td>18F-RQ-EI-01</td>
<td>Rongshan Qin</td>
<td>Visual Interactive Learning of Engineering Concepts</td>
<td>Technologies for STEM Learning</td>
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<td>No.</td>
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<td>Project Description</td>
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<td>70</td>
<td>17K-LR-EI-02</td>
<td>Linda Robson</td>
<td>Assessment banking – useful break or deferred withdrawal? An investigation of the outcomes and experience for students who have assessment banked</td>
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<td>71</td>
<td>17E-ER-EEES-03</td>
<td>Emma Rothero</td>
<td>Floodplain Meadows Partnerships Ambassadors</td>
<td>STEM engagement</td>
<td>EEES</td>
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<td>72</td>
<td>18E-MRRI-EI-01</td>
<td>Clare Reger, Mark Bowden and Anne-Marie Gallen</td>
<td>Factors influencing female participation in Physical Science Postgraduate Research Programmes</td>
<td>Equality, diversity and inclusivity</td>
<td>E&amp;I and Uni of Liverpool</td>
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<td>73</td>
<td>19G-JRCH-EEES-01</td>
<td>Julie Robson and Chris Hutton</td>
<td>Online peer mentoring at scale: Benefits and impacts from a student buddy perspective</td>
<td>Supporting students</td>
<td>S112, S(XF)206, S209, S390</td>
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<td>19E-ER-EEES-03</td>
<td>Emma Rothero</td>
<td>Use of OULive recordings of live mathematics and discussion forums on a level 3 Pure mathematics module in order to enable students to move to a growth mindset in maths and to add a social dimension to learning mathematics</td>
<td>Supporting students</td>
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<td>75</td>
<td>19E-ER-EEES-03</td>
<td>Emma Rothero</td>
<td>Flight of the Fritillary</td>
<td>Flight of the Fritillary phase 2</td>
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<td>76</td>
<td>18E-MRRI-EI-01</td>
<td>Clare Reger, Mark Bowden and Anne-Marie Gallen</td>
<td>Equality, diversity and inclusivity</td>
<td>E&amp;I and Uni of Liverpool</td>
<td>May-19</td>
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<td>77</td>
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<td>Project Code</td>
<td>Team Members</td>
<td>Description</td>
<td>Learning/Teaching Technologies</td>
<td>Key Milestones</td>
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<td>76</td>
<td>EST-8RT-002</td>
<td>Hayley Ryder and Toby O'Neil</td>
<td>Does the provision of an 'own working space' for tutors enhance the learning experience for students?</td>
<td>Online tuition, Adobe Connect, tutor-room approach</td>
<td>Jul-18 to Jul-20</td>
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<td>77</td>
<td>E88-B120-010</td>
<td>Bryan Singer and David Husse</td>
<td>Teaching psychological concepts through Virtual Reality (VR)</td>
<td>Online, head-mounted virtual reality, 2D and 3D</td>
<td>Oct-18 to Jun-20</td>
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<td>78</td>
<td>E83-TRACEM-01</td>
<td>Rachel Slater, Anne Campbell and Elaine McPherson</td>
<td>Accessibility and inclusivity in tuition (AccIT)</td>
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<td>Jan-20 to Sep-21</td>
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<td>79</td>
<td>E82-CTMC-CC-01</td>
<td>Chris Thomson and Marina Carter</td>
<td>Workday daytime tutorials for apprentices - what is the best practice in Computing?</td>
<td>Online tuition, interactive labs, science community building</td>
<td>Apr-20 to Feb-21</td>
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<td>80</td>
<td>E81-LTMV-2020</td>
<td>Linda Thomson and Maria Velasco</td>
<td>The impact of live streaming module-wide events in student engagement and motivation</td>
<td>Online, tuition, interactive labs, science community building</td>
<td>May-18 to Jul-20</td>
</tr>
<tr>
<td>81</td>
<td>E82-MT-01</td>
<td>Maria Townend</td>
<td>The value to students of drop-in tutorials to support assessment</td>
<td>Drop-in tutorials, online, student participation</td>
<td>Jun-20 to Dec-21</td>
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<td>82</td>
<td>19D-JW-LHCS-01</td>
<td>Janette Wallace</td>
<td>Evaluating student perspectives of different types of learning events provided on SDK228, a Level 2 LHCS module</td>
<td>Tutorials, interactive, engagement, informal, student success</td>
<td>Measuring 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</td>
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<tr>
<td>83</td>
<td>20D-GW-SPS-01</td>
<td>Gemma Warriner</td>
<td>How successfully are students engaging with the Python component of SM123?</td>
<td>Python, engagement, physics, stage 1</td>
<td>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</td>
</tr>
<tr>
<td>84</td>
<td>18K-CWLC-EEESLHCS-01</td>
<td>Carlton Wood and Lynda Cook</td>
<td>Supporting students in online tuition from Access Modules for student journeys</td>
<td>Online/onscreen STEM practice</td>
<td>Supporting students in online tuition from Access Modules for student journeys</td>
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<td>85</td>
<td>19F-AY-EI-01</td>
<td>Alan Yate</td>
<td>Do OU students understand the Learning Outcomes on courses in general and in T176, T192, T193, T194?</td>
<td>Learning outcomes, academic literacy, student journeys, TMA</td>
<td>Students' understanding of the Learning Outcomes on courses in general and in T176, T192, T193, T194</td>
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<td>86</td>
<td>17K-YYAD-CC-01</td>
<td>Yijun Yu and Anton Dil</td>
<td>Ask Programs Aloud - Making Programming Concepts Accessible at a Distance</td>
<td>Accessibility, voice interaction technology, AI, programming</td>
<td>Development and evaluation of a software tool for automated Java specification marking</td>
</tr>
</tbody>
</table>
Retention, data

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

Mar-19

Group work, graphic, TBC

Final report submitted

Sinead O’Connor and

Implementation of lessons

School(s)/Unit(s)

Module(s) involved

Jimena Gorfinkiel, Sally

Investigating the challenges

Project completed

Students who were invited to the project had no previous knowledge of haptics, the specific device used, nor the concept of how haptics worked in the virtual realm. They were introduced to very fields of design innovation and prototyping assembly. Many of the students were not certain of their interest in haptics. Some students used a P3D 3D printer to create basic boxes (2D model) and were inspired by the hardware process designer and student/"We would like to include the shape assembly project as a literature review in the future."

The longer term impact meaning the effect on student retention etc... will be measured after more tracing with module haptics as a genetics topic. The potential for this project lies with academic teaching staff has been interacting, from the primary volume. Data was collected in relation to the MTP. variance of the shape assembly, all of which have been required to read further on haptics in education. They all were interested and stated they were inspired about the OU investing in research for design TEL. Eventually this project has led to the project lead adding to an external blog through University like the function (UH). It has also been placed in the project leads PhD tenure, as a main trial of haptics, learning. Papers have been submitted as external thesis, conference.

Supporting students

Virtual laboratory context and student experiences

Supporting students

Online laboratory context and student experiences

Supporting students

Online laboratory context and student experiences

Supporting students

Online laboratory context and student experiences

The design of future module tutorial strategies may encompass the following without the intention that all students will use all types of provision.

• 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, clinic, problem solving and group work.

• Complete integration of the tutorial provision within the online module materials - from the module planning stage onwards.

• Provision of genuinely large-scale synchronous events, which add value to the student experience such as live debates or lab casts.

• 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.

• Complete integration of the tutorial provision within the online module materials - from the module planning stage onwards.

• Opportunities for student collaboration which emphasize the importance and value of student to student interaction.

• Opportunities for peer to peer ‘faculty’-facilitated synchronous meetings.

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• Opportunities for peer to peer ‘faculty’-facilitated synchronous meetings.
In the light of current talk about flexibility of start dates the project has produced hard evidence of demand, organisational and assessment issues associated with accelerated starts.

7. A discussion with WELS has taken place re adapting the idea to their context.

6. Following discussions with S104's, the module coordinator, and the wider team it was agreed that we would introduce an element of flexible submission and feedback for TMA's, which means that students could still be flexible about how much they did but at least had to submit the work by a defined date.

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 acting as a proxy for lack of engagement at an early stage with study.

4. Student retention has improved by 2-3 percentage points between registration and module start. Around 30-40 more students passed M140 than we would have expected compared to previous years.

3. Neither students nor tutors feel that there are strong benefits for most students of having the same tutor on the early start programme as they do on the main presentation.

2. Student responses to the questionnaire were clearly showing how much they valued the tutors and the tutorials support …… and yet uptake of the facility offered by tutors seemed low.

1. The impact of this project on student learning and on AL practice cannot be assessed within this project. This project has established a clear message for other ALs—the Early alert Indicators on two level 1 modules are useful but they are a supplement not a replacement to your knowledge. With a secondary clear message that students like you to proactively contact them! The work on the module materials inherently, so comparisons with previous years can be problematic. Additionally, there were several other retention measures undertaken by S215, and while the module materials were certainly a positive development, there could have been further improvements to support students and reduce retention issues.

8. In the light of current talk about flexibility of start dates the project has produced hard evidence of demand, organisational and assessment issues associated with accelerated starts.
It has provided a timely investigation that is pertinent to the engagement manifesto and current discussions on digital scholarship. Results have been shared with the Communications team.

In conclusion, we can strongly recommend our approach for the first round of observations, noting the importance of our three-step process, and its value in terms of impact on teaching practice and learner engagement.

Helen Donelan

Using peer observation within a level one transition module: a distance learners’ perspective

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 deployed on the module's Virtual Learning Environment (VLE), where it was used extensively.

Sally Crighton

Breaking the coding barrier: technology, pedagogy and practice

This project was included in a cross-Faculty evaluation of module use of analytics (Walker et al, 2018), and as such some qualitative data regarding tutors’ views of our project is available.

Felicity Bryers, Laura Howe

Using on-line observation in one level one transition module

TM112 is of a higher level and moves the students from using visual programming languages to text-based programming. The first two findings of our project strongly support the decision by the School in replacing TU100.

All change, but does tuition in clusters help? Evaluation of a new delivery model for numerical reasoning for Level 1 mathematics and statistics.

Basiro Davey

Understanding STEM tutor motivation and perceptions of good practice

MU123: an investigation into perceptions of good mathematics module practice. Feedback from Aiken and Ousunde (C&C) and Andrew Potter (ALs) indicated no immediate appetite for another round of observations, however ideas from both rounds continue to be considered.

3. The software developed offers a way for students to check their understanding of specifications, to a large extent without the need to consult their tutor. Reuse of the tool offers significant potential to save tutors’ time, especially in large lecture classes. The potential is further enhanced by further development of the tool.

4. The tool could also act as a self-assessment of marking, depending on the workflow adopted.

5. Students have had a handy tool they can use to check their understanding and re-examine our own specification details.

6. Tutors who used the software observed that it opened them up to a new audience of students, whom they had may have downgraded in some way. This indicated that a changed behaviour might lead to shorter working times. This could also act as a self-assessment of marking, depending on the workflow adopted.

7. We noted that structured specification checking should continue to be included in student training and that a definition of what consensus exists have not been set.

Although there were some constraints expressed over the use of automated marking tools, we consider the project to have provided good evidence for the advantages of automated marking of student work by a variety of users and as a way of supporting students.

4. The majority of the tools used in this project and the three projects involved in this project mainly used for assessment and feedback tools. Therefore, they are seen as tools that can be used in a directed way to support students and tutors.

5. The assessment process is a key element in supporting students in their transitions to different levels within the curriculum. The use of peer observation in one level one transition module is a way of supporting students in their transitions to different levels within the curriculum. The use of peer observation in one level one transition module is a way of supporting students in their transitions to different levels within the curriculum.

6. The second two findings of this project contribute significant knowledge to the efficacy of running bridging courses for distance learning students. The findings demonstrate that students who are most likely to benefit from attending a bridging course will need to be contacted personally and encouraged to sign up for it, or at least attend.

Overall, the project demonstrated that effective assessment of student performance is crucial for both the success of the students and the module teams. The project findings have been communicated to module teams and have been used to inform future assessment practices.

Jul-13

Jul-18

Feb-12

Aug-14

MU123, TT284

C&C

TM112

C&C

M250

C&C

TU100

C&C

TM129, M250, C&C

TU100, C&C

TU100

C&C

TU100, C&C

M269, TT284

TU100, C&C

M250, C&C

M250

C&C

M250

C&C

M250, C&C

M250

C&C

M250

C&C
The inclusion of a discussion around the role of tuition in several level 1 modules has also raised this idea in the minds of learners. It is clear that this needs to be further developed in the future.

Students everywhere have similar support needs and expectations of tuition. We can apply what we have learned from Open University tutors to a wider set of tuition models.

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.

As well as the tangible output of the Modules and Handbook, the project also led to successful in-country capacity building that will contribute to sustainable improvement in learning and teaching.

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

1. Expand use of OpenWASH to other colleges
2. Clarify links between OpenWASH and Occupational Standards
3. Promote use of Count me in! Inclusive WASH in Ethiopia
4. Organise an OpenWASH publicity event
5. Organise OpenWASH user network development
6. Establish an OpenWASH user network

The recommendations include some suggestions for possible implementation.

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The recommendations include some suggestions for possible implementation.

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.

As well as the tangible output of the Modules and Handbook, the project also led to successful in-country capacity building that will contribute to sustainable improvement in learning and teaching.

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

1. Expand use of OpenWASH to other colleges
2. Clarify links between OpenWASH and Occupational Standards
3. Promote use of Count me in! Inclusive WASH in Ethiopia
4. Organise an OpenWASH publicity event
5. Organise OpenWASH user network development
6. Establish an OpenWASH user network

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The online survey showed that a higher proportion of men were already working in the IT industry, whereas more women were looking to enter into an IT related role for the first time.

Skills progression in practical science

Employability, equality, understanding and improving LHCS

Evaluation of a community partnership approach using open educational resources: Equate Scotland and the OU in STEM for Athena SWAN

A major success of this project is the collaboration with the University of Aberdeen that resulted in the implementation of a comparative study examining different teaching and learning methods to embed employability in practice based STEM distance learning. The model of blended learning in a community partnership could be adapted for other under represented groups, thus benefiting students who have not yet directly been involved in the STEM workforce. As a result of the project, the women returners programme successfully supported over 60% of the pool of 40 women returners into placements, full time work in STEM or to further education. The model of blended learning in a community partnership could be adapted for other under represented groups, thus benefiting students who have not yet directly been involved in the STEM workforce.

John Woodthorpe, Janet Haresnape

The activity which was incorporated into S295, which is of a similar design to the one reported here, was also intended to be a confidence-building activity which helps weaker students. It is scheduled very early in the module presentation with the aim of helping S295 students to engage with others in their tutor group, and with their tutor, early in the presentation. This builds early engagement and interaction between.

Carol Midgley

The OU in Scotland has included this as an example of good practice in their Gender Action Plan. The publication of the journal article has enabled OU colleagues as well as external scholars to learn from this model. We hope to be able to roll the model out to a wider audience through funding bids as an example of the university’s commitment to equality and diversity. The OU in Scotland has included this as an example of good practice in their Gender Action Plan. The OU is an equal opportunities employer and is committed to attracting and retaining a diverse and inclusive workforce. The OU is an equal opportunities employer and is committed to attracting and retaining a diverse and inclusive workforce. It is an equal opportunities employer and is committed to attracting and retaining a diverse and inclusive workforce. It is an equal opportunities employer and is committed to attracting and retaining a diverse and inclusive workforce. 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The workshops lead to the identification and prioritising of key Tricky Topics by the module team and ALs. The module teams were asked to consider putting in place new interventions. 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 feel the need for these facilities.

Based on the results of this project we recommend that the school of Mathematics and Statistics adopts this alternative format across the curriculum in addition to its existing outputs.

Carol Calvert, Katie Chicot, John Bolton (SPS), Lynda Northover, Victoria Pearson, Karen New (AL) (external consultant) and Jon Cook, Saroj Datta, Jon Zochowski (ALs) McFarlane, Sam Nolan, Grahame Danby, Anthony Woods and LTI Translation Innovation team led by Tom Olney (STEM Deanery), Jan Moore - Students' study of online practice using this medium. While the study set out to explore peer observation in an online setting, it is important to stress that the key issue is the facilitation of effective development, rather than the promotion of peer observation per se. This is particularly pertinent in an educational environment, where peer observation often serves as a means of observation in the peer review process, and where it is often difficult to achieve an understanding of effective development by enabling students to study in a real environment.

We make the following recommendations based on the findings of this study:

1. Conduct more scholarship work or research on widening participation students in science modules with regard to their academic and scientific literacy to inform future module designs.
2. Develop and embed academic literacy and/or scientific literacy materials in Level 1 and possibly Level 2 for students on how to write explanation, discussion and reflection texts in the context of the TU100. These findings will inform the design of the replacement module using what has been learnt from the project and also the rates/satisfaction and progression.
3. Address Student Topic process to identify and meet all the criteria.
4. Organisational commitment to ensuring good quality online access to all meetings as routine to enable Staff Tutors to achieve their job description without travelling far and wide. This is only possible if the School has legal and management commitment to conducting online meetings as a matter of course.
5. More importantly it would ensure that Staff Tutors were always visible, connected with central campus, had the same opportunities as central staff to serve on committees and equally promoted.
6. Organisational commitment to ensuring good quality online access to all meetings as routine to enable Staff Tutors to achieve their job description without travelling far and wide. This is only possible if the School has legal and management commitment to conducting online meetings as a matter of course.
7. There is an urgent need for a review of the new promotions criteria and a thorough analysis of both the promotions data and an analysis of the feasibility for Staff Tutors to engage with. This analysis needs to be carried out in the context of the number of locations, which has a substantial impact on the working conditions and career opportunities for Staff Tutors.
8. There are recommendations have been disseminated to each STEM S400 group and Heads of Departments to be used in their S400 submissions.
9. The University’s Strategy, S400, undergraduate offering, and Staff Tutor role have been considered recommendations in the report as the key requirements for course warranting.
10. The University’s Strategy (2020-H) has also been considering how the work could feed into a review of the promotion criteria at level 2.

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Are we making progress? Progression at level 1?

At the beginning of the academic year 2015/16, the students started to use Level 2 ARFY quizzes to enhance their learning. The quizzes are a part of the Level 2 Programming Module, which covers the usefulness of the Level 2 ARFY quizzes.

The study found that few students seriously used diagrams before their study of the modules; that they were either enthusiastic or sceptical about their value although most said they would use them in future; that the number of diagrams and the technologies used to create and share them were often burdensome in the two modules investigated; and that the group work required students to work with others, to share their ideas and to use diagrams. The results also showed that the students valued the feedback they received on their use of diagrams.

The study also found that the students were generally enthusiastic about the use of diagrams in their studies. They found that diagrams helped them to understand complex concepts and to visualize the relationships between different elements. The students also found that diagrams helped them to organize their thoughts and to see the bigger picture.

The study also showed that the students were generally satisfied with the feedback they received on their use of diagrams. They found that the feedback was helpful in improving their understanding of the concepts and in improving their ability to use diagrams effectively. The students also found that the feedback was helpful in improving their ability to work in groups.

The study also showed that the students were generally satisfied with the way in which the diagrams were presented. They found that the diagrams were clear and easy to understand and that they were effective in highlighting the important points. The students also found that the diagrams were effective in helping them to learn the concepts and to see the bigger picture.

The study also showed that the students were generally satisfied with the way in which the diagrams were used. They found that the diagrams were used in a variety of ways and that they were effective in helping them to learn the concepts and to see the bigger picture. The students also found that the diagrams were used in a variety of ways and that they were effective in helping them to learn the concepts and to see the bigger picture.

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1) An updated list of project items for the 2020 eSTEeM conference. The aim is to ensure that authors and students benefit from the remainder of the project in two ways: first, by making it available to current and future students in the form of an online resource, and second, by providing a platform for sharing and discussing the project's outcomes with other educators. The goal is to encourage a culture of sharing and collaboration among educators, students, and other stakeholders.

2) Selection of a suitable tool for the development and delivery of the project's online resources. The tool should be user-friendly, accessible to a wide range of audiences, and capable of supporting collaboration and communication. The tool should also be flexible and adaptable to the needs of the project, allowing for the creation of interactive and engaging content.

3) Recruitment of volunteers to assist with the development and delivery of the project's online resources. Volunteers should be experienced in online learning and have a passion for improving the educational experience for students. The volunteers should be available to contribute their time and expertise throughout the project.

4) Development of a project timeline and action plan. The timeline should outline the key milestones and deliverables for the project, as well as the responsibilities of each team member. The action plan should detail the specific activities and tasks that will be undertaken to achieve the project's goals.

5) Development of a comprehensive communication plan. The communication plan should outline how the project will be marketed and promoted to ensure maximum visibility and engagement. The plan should include strategies for reaching target audiences, as well as tactics for leveraging social media and other digital channels.

6) Development of a project budget. The budget should outline the anticipated costs for the project, including the costs of resources, equipment, and personnel. The budget should be realistic and based on thorough research and analysis.

7) Development of a project evaluation framework. The evaluation framework should outline how the project will be measured for success, including the criteria and metrics to be used. The framework should also include strategies for gathering and analyzing data to assess the project's impact.

8) Development of a project management plan. The project management plan should outline how the project will be managed and controlled. The plan should include strategies for risk management, change control, and quality assurance.

9) Recruitment of a project manager. The project manager will be responsible for overseeing the project's development and delivery, ensuring that it meets the project's goals and objectives. The project manager should be experienced in project management and have a proven track record of delivering successful projects.

10) Development of a project governance structure. The governance structure will outline how decisions will be made and how the project will be governed. The structure should include roles and responsibilities, as well as procedures for decision-making and accountability.

11) Development of a project delivery plan. The delivery plan will outline how the project will be implemented, including the resources and activities required to achieve the project's goals. The plan should be flexible and adaptable to the needs of the project.

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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 M248: Analysing data.

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

The interviews confirmed the anecdotal evidence that students felt more positive about studying practical science online after they had studied the modules and 71.2% of students were satisfied with bridging material during the module: benefits and second level human biology practice.

The team are in the early stages of discussions for disseminating the information to the Sigma (mathematics support centre) Network steering group who are interested in our distance learning support techniques to further.

We are currently listing with three sites in the School of Mathematics and Statistics who are using the Pilot site for one of the level 2, mathematics and statistics modules, and another for NCT210: Mathematical methods, methods and modelling and W200: Purer mathematics, which will be live for 2019. Along with more work with both the T130 and T131, much of which will be to establish some of the pedagogical and technical specifications as well as to establish a way of working between the teams to make sure that the work has the maximum impact.

Expectations and Experience of Group Support Sessions (Deanery), Mark Hirst (LHCS) and Lynda Cook (LHCS).

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 modules, and another for NCT210: Mathematical methods, methods and modelling and W200: Purer mathematics, which will be live in 2019. Along with more work with both the T130 and T131, much of which will be to establish some of the pedagogical and technical specifications as well as to establish a way of working between the teams to make sure that the work has the maximum impact.

As primary stakeholders, the results of the project have been shared with the Module Team Chair (Kerry Murphy) and the author of the Cardiovascular Topic (Lynda Cook) to consider and develop.

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Our project was mainly focused on volunteer engagement and learning. 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 them to be directly relevant to their curriculum.

Framing Professional Engagement, Schools, universities, public, data volunteers

Joe Kyle (AL) STEM engagement

A quantitative and qualitative study in Flight of the Fritillary phase 2

The participants in this study told us that students prefer to receive the majority of feedback questionnaires and volunteer attendance reports via email, whereas messages about events are delivered through social media. Students also reported that they prefer to receive messages about events and opportunities via social media, whereas messages about events are delivered through traditional channels. Students in all three of our sample groups underestimated the number of email communications sent to students at a single institution.

Recommendation 2: The subject field of emails to students should be user-defined or provide a list of options.

Email should continue to be the primary mode of communication.

Recommendation 3: Provide messages with links to the website to ensure students can follow up with the online community.

Email messages should be personalized and include student information.

Recommendation 4: Encourage students to respond to email communications.

This project was listed in the REF submission as engaging the wider public in research where it secured from The Open University. The employer-led consortium will be responsible for setting up Standards for the proposed ‘trailblazer’ Systems Thinking Practitioner apprenticeship.

• STiP related professionals
• STiP alumni with their benefit of in-work post-study experience
• STiP educators within and beyond The Open University

This project will be listed in the REF21 submission as part of an Impact Case Study around engaging the wider public in research.

Recommendation 5: Email communications should be designed to mimic examinations.

The results have informed ALSD (see deliverables), and will continue to be used through the RPE-IDO group. The aim is to increase active learning in online tutorials, and to add to the current research literature on active learning in online tutorials, thereby increasing student engagement in online tutorials in Adobe Connect; our results provide motivation and practical tips.

Applicability and graduates, student development, research skills, employer engagement, active learning modifications

Slaymaker

This project was mainly focussed on volunteer engagement and learning. In addition to traditional methods, it was particularly effective for students with grade 5 or 6 passes in relevant modules at Level 1. Students also feel more confident if they gain plenty of experience before meeting with a volunteer specifically designed to meet their needs.

This new research into the impact of student feedback on the development of student engagement highlights a need for more research into these issues. The project will be listed in the REF21 submission as part of an Impact Case Study around engaging the wider public in research.
The use of peer assessment in teaching via the Moodle VLE assessment/review in distance education, student engagement and implications of blending digital and networked resources, digital resources, student experience and communications, environmental education, student experience.

Online content, embedded videos, active learning, postgraduate study, masters.

TU100, T320, Y181, M813, M815, T805, T867, T868, T889, M811, M814, M816, SDK100, A850, S390, S366, CCEEES-01, LTHCS-01, LHCS-01, FASS-01, SPS-01.

Creative Climate Learning: S815 is using peer assessment in 2014. SX390 has expressed an interest in using it to develop the students' abstracts. It is being used in a number of modules in Social Sciences.


5. For the project to be taken into account, the design of the audio part should be modified considering that only a few students are dependent on visualisation. Moreover, they marvel at the project of the audio part.

6. The design of activities involving OpenStudio should take account of the following recommendations: the design of activities involving OpenStudio should take account of the following recommendations:

- Time management skills are particularly important for students carrying out activities in OpenStudio where students are dependent on each other for feedback, so they need advice on how to ensure the feedback process is effective. These skills are particularly important for students carrying out activities in OpenStudio where students are dependent on each other for feedback, so they need advice on how to ensure the feedback process is effective.

• Students need time to develop the confidence and the skills to offer more ‘in-depth’ feedback to their peers. Confidence increases with the student’s experience of study.

• Students should be provided with guidance on giving feedback to their peers, and importantly how to evaluate the feedback they receive from their peers.

7. Finally, OpenStudio offers a means of collecting and curating digital artifacts for the duration of a module so students can look back over their work. However, it is not possible currently for students to carry over their work in OpenStudio from one module to another. This could be something to consider for further development of OpenStudio in future.

8. The focus for the project will be on developing a reference point for future students on the teaching of programming at level 1 in the School. In addition to disseminating the work of the project within the University, we were able to present our work at an international conference in Japan and to present the follow-up work to the teaching of programming in TU100. My digital life were correct. Therefore, the project will provide a reference point for future students on teaching of programming at level 1. In the School. In addition to disseminating the work of the project within the University, we were able to present our work at an international conference in Japan and to present the follow-up work to the teaching of programming in TU100.

9. As well as persuading LTI to release the workshop tool to all modules I have subsequently worked with LTI in developing a guide on workshop for Module teams to use.

10. The University agreed a number of principles for assessment of which number 6 is “Students should be given opportunities to engage in and develop their skills in peer review and self-assessment.”

- Students need time to develop the confidence and the skills to offer more ‘in-depth’ feedback to their peers. Confidence increases with the student’s experience of study.

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## Project Name: Infinite Bandwidth Zero

### Objective:

The project aimed to investigate the feasibility of using neural networks to support student retention and engagement in STEM modules. The primary goal was to develop a predictive model that could identify students at risk of dropping out and provide early intervention strategies.

### Key Activities:

- **Neural Networks:** Utilized in a two-phase study to predict student retention and engagement.
- **Interactive Learning Tools:** Developed to enhance student engagement and retention.
- **Data Analytics:** Implemented to monitor student progress and provide personalized support.

### Key Outcomes:

- **Student Retention:** Improved through personalized interventions and early alert mechanisms.
- **Enhanced Learning Outcomes:** Students showed increased engagement and better understanding of course materials.
- **Improved Satisfaction:** Students reported higher satisfaction with the learning experience due to targeted support.

### Lessons Learned:

- **Collaborative Approach:** Effective collaboration between faculty, students, and technology experts was crucial for project success.
- **Dynamic Adaptation:** The project's success hinged on the ability to adapt to changing student needs and technological advancements.
- **Sustainability:** Long-term benefits were achieved through sustainable practices and continued development of interactive learning tools.

### Future Directions:

- **Scale-Up:** The model developed can be scaled up to other STEM modules and programs.
- **Integration:** Further integration of data analytics tools into existing learning management systems.
- **Continuous Improvement:** Ongoing research and development to refine predictive models and enhance learning experiences.

### Conclusion:

The Infinite Bandwidth Zero project demonstrated the potential of neural networks and data analytics in improving student retention and engagement. The project's success highlights the importance of interdisciplinary collaboration and the need for continuous investment in educational technology.

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**Table:**

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<tr>
<th>Phase</th>
<th>Description</th>
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| **Phase 1:** | Neural network training and validation.
| **Phase 2:** | Deployment of predictive models.
| **Phase 3:** | Evaluation of student satisfaction and retention.
| **Phase 4:** | Ongoing adaptation and improvement based on feedback.

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**References:**


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**Acknowledgments:**

The authors would like to thank the support of the STEM Faculty and the broader academic community for their contributions to the project. Special thanks to Dr. Jane Doe and Dr. John Smith for their guidance and support throughout the project.
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<td>C&amp;CC &amp; WELS</td>
<td>Nel Boswood, Caroline Coffin, Qian Kan, Sarah Mukherjee (WELS), Val Hancock, Mandy Honeyman, Cheryl McAndrew, Heather Morris (ALs)</td>
<td>Jim Donohue joint PL until 31 Jul 15</td>
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<td>John Woodthorpe and Jim Donohue</td>
<td>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</td>
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<td>Professional development for the 4-6 MCT ALs involved, and for the MCT and language central academics</td>
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<td>Development of repertoires of practice and a repository of products which will underpin MCTs retention and assessment strategies</td>
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