

The 13th eSTeEM Annual Conference: Sharing Scholarship and Best Practice – Implementing What Works

10–11 April 2024

FINAL PROGRAMME

Day 1: Wednesday 10th April 2024

Time	Session	Room
9.15–10.00	Registration and Coffee	Medlar and Juniper
10.00–10.05	Welcome and Introduction Sue Pawley and Daphne Chang, eSTeEM Directors	Hub Lecture Theatre
10.05–10.15	Welcome Address Victoria Nicholas, Associate Dean, Faculty & Strategy	Hub Lecture Theatre
10.15–11.00	Keynote Presentation Dilly Fung, Emerita Professor in Practice, LSE <i>Strength-based scholarship and ‘good’ education: Developing ourselves and the university</i> What is scholarship, what is ‘good’ education, and what is the relationship between these two? And in what ways can education-focused scholarship – and scholars – contribute to the	Hub Lecture Theatre

	strategic development of higher education institutions? Drawing on her recent experiences as Pro-Director (Vice President) at LSE and her journal article ' Strength-based scholarship and good education: the scholarship circle ', Dilly Fung will address these questions. She will explore ways in which, as colleagues working in higher education, we can orientate our own investigations to benefit our students, maximise our own strengths and opportunities, <i>and</i> enhance the future of development of the university.			
11.00-11.15	Break			Medlar and Juniper
11.30-12.30	Parallel Session A: Workshop/Demonstration – Access, Participation and Success			CMR I
	Andrea Patel, Chris Corcoran, Stephen Jones, Ralph Burns and Sean Starbuck	Empowering the Student Learning Experience through Support Network Mapping: an active learning workshop	We will introduce our eSTeEM project that focuses on Support Network Mapping as a creative tool that can be used to empower students to visualise and strengthen their individual support network. Attendees will create their own professional network map and discuss the potential benefits and applications of support network mapping.	
11.30-12.30	Parallel Session B: Workshop/Demonstration – Employability			CMR II
	Heather Fraser, Janet Haresnape, Hanne Bown, David Ruiz and Hannah Gandy	Online enrichment workshops: how these can help you engage and enrich your students' experiences	We will showcase our online enrichment programme which keeps students engaged over the summer months, creates a sense of community, and raises awareness of employability skills and employment possibilities among undergraduate students in LHCS. We will brain-storm possible improvements	

			and how similar programmes could work in other Schools.	
11.30–12.30	Parallel Session C: Workshop/Demonstration – Access, Participation and Success			CMR 15
	Zoe Tompkins, Kate Feliciello and Amaninder Singh	STEM Decolonisation in practice	An opportunity to review decolonisation practices with a specific focus on Computing & IT activity across a range of UK Higher Education Institutions. Participants will also be able to reflect on their own practice and discuss opportunities and challenges with colleagues.	
11.30–12.30	Parallel Session D: Workshop/Demonstration – Assessment and Feedback			Library Seminar Rooms 1–2
	Charlotte Lighter and Cathy Smith	Learning from improvers: Lessons for assessment (an interactive workshop)	Interactive workshop exploring integrated assignments and discussing theories of assessment, building towards critiquing and articulating participants own assessment strategies.	
12.30–13.30	Lunch			Medlar and Juniper
13.45–14.45	Parallel Session E: Short Oral Presentations – Access, Participation and Success & Inclusivity			CMR 1
Chair: Andrew Potter	Louise MacBrayne and Zoë Chapman	Is the cost of home experiments a potential barrier to learning?	The presentation will report findings from a project investigating whether financially impoverished students are being disadvantaged by the	

			expectation to use facilities assumed to be in the home (such as a fridge) and the expectation to purchase additional consumables needed for home experiments in level one science modules.	
	Jo Smedley, Hedieh Jazaeri, Alice Moncaster, Silvia Varagnolo and Fiona Gleed	Improving and evaluating inclusivity in group project work for distance-learning engineering students	Group-work in the OU context has a particular set of problems. Furthermore, improving inclusivity in engineering practice is critical and group-work is an opportunity to support all students in developing these skills and understanding. Our findings feed into the wider knowledge base on inclusivity in distance-learning group-work especially in STEM.	
	Magnus Ramage, Zoe Tompkins and Clem Herman	Understanding and amplifying student perspectives on decolonising the computing curriculum	This presentation discusses the results of a survey, with 400 student respondents about decolonising the curriculum in Computing & IT. We will explore what students think about the idea of decolonising, how we might engage students in the process, and the challenges this could face.	
13.45-14.45	Parallel Session F: Short Oral Presentations – Employability			CMR 11
	Kay Bromley, Joan Jackson, Jill	Evaluating and enhancing student recognition of	Research shows some recognition of professional competence and study	

Chair: Janet Haresnape	Shaw and Mark Slaymaker	employability skills development – examples from postgraduate project management	skills development by students in a postgraduate module. Some development relates to transferable skills, but students do not recognise the impact on employability. Examples of how to engage students with development of transferable employability skills will be presented in this session.
	Vera Hale, Nicole Lotz, Georgy Holden and Derek Jones	Designathon: creative online career and employability development	This presentation introduces an innovative approach to online career and employability skills development. OU design students were given an online opportunity to collaborate and design solutions to real-world issues. We want to share our learning from this approach and how it can develop OU student's career skills and employability more widely.
	Alan Cayless and Arabella Nock	Learning Logs: Employability skills for remote experiments	Learning Logs are a forum-based skills recording tool built into the module SXPS288 Remote Experiments in Physics and Space. This study uses analytics and student feedback to assess the effectiveness of the Logs. The talk will provide an update following publication of the final report.

13.45–14.25	Parallel Session G: Short Oral Presentations – Student Support & Continuation and Completion			CMR 15
Chair: Cathy Smith	Anne-Katrin Klehe	Aiming for a sense of community in a level 2 Physics module and its correlation with retention	Regular informal group meetings offered to initially 60 students in S217, a 60 credit Physics module, showed that retention in that group was significantly better than in the rest of the cohort (85% confidence) but that there is no difference in exam result distribution.	
	Cath Brown and Sue Pawley	A timed, marked mock examination to enhance student success	We trialled offering a timed, marked mock examination to students on MST224. This used AL tuition time to mark the papers. Students who opted to take the mock showed enhanced performance in the final examination compared to their peers who did not and reported a beneficial impact on their preparation.	
13.45–14.45	Parallel Session H: Short Oral Presentations – Innovations in STEM Teaching and Learning			Library Seminar Rooms 1-2
Chair: Fiona Moorman	Ruth Neal, Kaustubh Adhahari and Kellee Patterson	Assessment and feedback on the introduction of group work on M140	The aim is to introduce an element of group work on a level 1 statistics module. We propose a trial of volunteer M140 students to work in groups. Students share their data from a seed growing experiment, discuss any issues	

			and suggest further analysis to perform on the shared data.	
	Trevor Collins, James Smith, Victoria Nicholas and Alexis Peters	A strategic approach to innovation in the curriculum	In this presentation we will explore the relationship between innovation and scholarship, and the institutional structures that foster it. Drawing on examples from The OpenSTEM Labs, we will consider the role technology plays within our blended approach to distance learning and how our scale and working practices impact innovation in the curriculum.	
	Anthony Johnston, Karen Kear, Helen Donelan, Jon Rosewell and Kieron Sheehy	Synchronous Online tutorials: analysis to identify groupings or types of student	Work was carried out to identify influences on attendance and active participation in online tutorials. The analysis aimed to examine the possibility that students can be categorised into groupings. This could help determine how best to help students be more active in tutorials or gain more from them.	
14.45–15.00	Break			Medlar and Juniper
15.00–16.00	Teaching Innovation Talks A series of short, 5-minute talks discussing module/programme level initiatives, concentrating on what works and how it has improved the student experience, followed by Q&A.			Hub Lecture Theatre

Chair: Sue Pawley	Fiona Gleed and Claudia Eckert	Building networks for female engineering students	The Women in Innovation, Design and Engineering (WIDE) conference, run by E&I in July 2023, brought female students together on campus for a weekend of networking, talks and workshops. By exploring the students' experience of the event, we consider the benefits of meeting face-to-face for academic progression and professional development.
	Phil Hackett	Tutor recruitment and retention on M269	In order to address tutor recruitment and retention concerns in a specialist module, a package of CPD materials was created by existing tutors to support new and potential tutors to become more confident in tutoring the module. This short talk describes the project and progress made so far.
	Sarah Daniell, Lorraine Waters, Katja Rietdorf, Heather Fraser, Patrizia Paci and Seth Racey	Exploring the impact of VR tutorials on S296, Cell and molecular biology	Virtual Reality (VR) is an exciting and stimulating environment for teaching. Initial findings are presented from a study in which S296 students have participated in tutorials held on the Mozilla Hubs VR platform. Preliminary results show students are more relaxed and willing to communicate with each other and tutors in VR.

	Silvia Bergamini and Calum MacCormick	Quantum computing as a teaching resource for level 3 quantum Physics	We have successfully embedded the use of a quantum computer in a level 3 UG module in quantum Physics. Despite being considered an advanced topic, typically taught at postgraduate level, the response and outcomes of the students have proved its great pedagogical value for understanding core concepts in quantum physics.	
	Tom Argles and Philip Wheeler	Teaching Geographic Information Systems (GIS) supercharged by ArcGIS Online	Teaching students the science behind satnavs and Google Maps has challenged distance educators. Now we can tap into the power of web GIS software to bring Geographic Information System skills to our students through their browser! A powerful, practical solution to teaching many topics critical to modern society.	
	Jotham Gaudoin	Teaching innovations in Mathematics and Statistics	A brief overview of some interesting innovations in Mathematics and Statistics teaching.	
16.00–16.45	Networking Reflect on day one of the conference with colleagues over some light refreshments.			Medlar and Juniper
16.45	Close of Day One			

Day 2: Thursday 11th April 2024

Time	Session			Room
9.00–9.30	Registration and Coffee			Medlar and Juniper
9.30–9.40	Conference Publication Launch			Hub Lecture Theatre
9.40–11.15	Workshop: Opportunities and Challenges of Implementing What Works Focusing on the opportunities and challenges of implementing what works, this workshop will include examples of impactful eSTeEM projects before workshop participants discuss how scholarship projects can have influence on a wider sphere at school, faculty and university level, and consider the obstacles and challenges that arise with implementing what works.			Hub Lecture Theatre
11.15–12.00	Poster Presentations			Hub Lecture Theatre
12.00–12.45	Lunch			Medlar and Juniper
13.00–14.20	Parallel Session I: Short Oral Presentations – Access, Participation and Success & Student Support			CMR 11
Chair: Christopher Hutton	Louise MacBrayne, Jennie Bellamy, Angela Richards and Elaine McPherson	Closing the awarding gap: listening to our Black students	This presentation summarises our completed research into the reasons for particularly wide awarding gaps for Black students in Level 1 science. Methods included thematic analysis of outputs from a focus group and interviews, and an intersectional study	

			to identify double disadvantages. The presentation will include findings, conclusions, and recommendations.	
	Janette Wallace and Zoë Chapman	Initial findings when evaluating the role and impact of a student intern in supporting the development of the LHCS student community and sense of belonging	Do you want to hear more about the experience, logistics, challenges, and successes of being a student intern. Find out if our student intern begins to feel a sense of belonging as a result of the work. And hear the perspectives of the project leads/supervisors on the internship dynamic.	
	Nicole Lotz, Vera Hale, Cindy Darbandi and Ida Rodrigues	Virtual interns: co-designing and decolonising curriculum in distance design education	This presentation introduces a novel approach to co-designing curriculum with OU students and academics at a distance. OU virtual interns created a collaborative space in Miro, called the Empathy Board which promotes reflexivity and dialogue. We found it supports our efforts to decolonise the design curriculum at the OU.	
	Cath Brown and Victoria Brown	Enhanced student support on MST124 – Personal Tutor scheme	To promote retention on MST124, we have introduced a Personal Tutor scheme. This entails students opting in to have additional support, such as general study skills and signposting. This talk describes the outcomes of the scheme so far, including feedback from	

			student questionnaires and from the ALs involved.	
13.00–14.20	Parallel Session J: Short Oral Presentations – Sustainability in the STEM Curriculum & Student Support			CMR 15
Chair: Gareth Neighbour	Martin Braun, Anita Dawes, Sally Jordan, Carlton Wood, Olga Andrianova, Maria Nita, Georgina Gough, Kathleen Calder, Paul Astles, Rosie Meade, Teresa Cox and Anna Elliott	Developing reflective assessment tasks to engage physics students with the key sustainability competencies	How can we embed sustainability in non-specialist modules without the need to become sustainability specialists? This presentation will outline an approach adopted for three physics modules aiming at both developing key sustainability competencies in students and also at motivating them to use these competencies.	
	David McDade, Phil Hackett and Anthony Johnston	To evaluate the effectiveness of focused staff training in recruitment on specialised modules	This presentation will discuss research carried out during this eSTEEem project. It will reveal the findings and experiences from a survey of 40 tutors during 2023, and the role the cyber security upskilling programme played in tutors applying for and teaching on the R60 qualification.	

	<p>Sarah Davies, Fiona Aiken, Elaine McPherson, Volker Patent, Maria Townsend, Debra Croft, Harriet Marshall, Joanna Shelton and Kate Lister</p>	<p>Ecoanxiety and environmental education: stories, conversations, actions</p>	<p>Ecoanxiety – the distress related to the climate and ecological crises – is connected to negative emotions of grief, guilt and hopelessness. But also to positive, adaptive or ‘practical’ responses. We explore our environment students’ experiences of ecoanxiety, impacts on learning and report on development of support resources, including digital stories.</p>	
	<p>Fiona Moorman, Gemma Warriner and Becca Whitehead</p>	<p>Can we reduce anxiety of students sitting online exams? Sharing best practice between SPS and LHCS</p>	<p>Our project aimed to understand and mitigate against student anxiety in the context of remote exams. We will present survey, online interview, and focus group data, highlighting key aspects of student preparedness, concerns and perspectives of their exam experience, and discussing how we can enhance student support for remote exams.</p>	
14.20–14.35	Break			Medlar and Juniper
14.35–15.35	Parallel Session K: Short Oral Presentations – Assessment and Feedback			CMR 15

Chair: Karen New	Soraya Kouadri Mostefaoui and Oli Howson	How useful are the Are You Ready for Your Studies Quizzes?	Are the diagnostic quizzes really assessing the students' readiness to studying level 2 modules? Do they give an accurate indication of future success? This study focuses particularly on programming heavy modules with low retention and/or students' satisfaction to investigate if the Are You Ready for Your Studies Quizzes are useful.
	Jonathan Nylk and Andy Diament	Understanding student perceptions and engagement for formative assessment: A study of interactive online quizzes	We often award credit to encourage students to engage with learning activities. However, this risks shifting the focus away from learning and towards mark counting. We will present findings into the effect of incentivisation on student engagement with online quizzes on a core Level 2 physics module.
	Janette Wallace and Allan Mooney	The findings and challenges of the cross-faculty scholarship monitoring project	The Cross-faculty Scholarship of Monitoring research project evaluated the changes to monitoring and investigated the impact of these changes on the role of the monitor, monitee, correspondence tuition and students. The findings highlighted specific areas of good practice and improvements; training, monitoring

			benefits, category use, monitoring impact and disagreements.	
14.35–15.35	Parallel Session L: Short Oral Presentations – Student Support			CMR 11
Chair: Daphne Chang	Cath Brown, Sue Pawley and Claudi Thomas	Rapid response TMA support forums	To promote student success and to ensure students felt more supported, we set up TMA support forums. These enable students to get individual help with TMA questions they find challenging in under a day. In this talk we will discuss the impact of these forums and student feedback.	
	Colin Blundell	An investigation into running taster tutorials within prisons for non-OU students and an evaluation of how we can better help Students in Secure Environments (SiSE) generally	An investigation into working with education departments within prisons in particular capturing the attention of non-OU prisoners and trying to break down barriers to education in general. The project changed focus to improving the way the OU supports Students in Secure Environments (SiSE) highlighting the general research quote "...you find what you weren't looking for..."	
	Fiona Aiken and Christopher Hutton	Evaluation and improvement of print pack use for Earth and Environmental Science Students	At the Open University we provide students with some declared disabilities and those in secure environments with printed versions of on screen materials. In this session we will share our results from student surveys, staff focus groups	

			and the effectiveness of ALs working as print pack champions on Earth and Environmental Science qualifications.	
14.35–15.35	Parallel Session M: Short Oral Presentations – Employability			CMR 1
Chair: Magnus Ramage	Michel Wermelinger and Michael Snowden	Collaborative editing and commenting of Jupyter notebooks to learn professional skills	We present an approach that allows students to develop professional skills while learning to program. The approach, which may also help tutors, requires no software installation and supports group work, commenting on code, and checking that students only use the constructs they learned.	
	Jo Sessford	Which factors are correlated with undergraduate engineering distance learning students' expectations of ethical issues?	This project investigated the factors which correlate with distance learning engineering students' expectations of ethical issues and the influences on the ethical values of distance learning engineering students. Data was gathered using an anonymous survey. The findings will be presented, together with some suggestions to take forward.	
	Lorraine Waters, Rachel McMullan and Heather Fraser	Online journal club in S285: does this help students develop employability skills?	Online journal club is used as an assessed activity in S285 for development of transferable skills. We have evaluated student perceptions of such skill development using small cohort student diary and focus group.	

			Students broadly recognise development of employability skills, but this seems to be related to their current experiences.	
15.45-16.00	eSTeEM Scholarship Projects of the Year and Best Poster Presentation Awards followed by Closing Remarks			Hub Lecture Theatre
16.00	Conference Close			