

Sustainability Symposium 2024: From embedding to embodying: Strategies, policies and practices to advance sustainable citizenship

21 March 2024, Virtual

Session abstracts

Keynote, 09:00 – 09:50, Zoom link 1

Education, training and SDG transformations

Patrick Paul Walsh, University College Dublin

Parallel session 1.1, 09:55 – 10:55, Zoom link 1

Session 1.1a

Nurturing sustainability mindsets of educators and students at TU Dublin

Dr Lucia Walsh, Dr Brian Gormley, Dr Olivia Freeman, Dr Aimee Byrne and Dr Ken Boyle, Technological University Dublin

The TU Dublin strategy is founded on 3 fundamental pillars : People, Planet, and Partnership, all of which are intrinsically linked to addressing the United Nations Sustainable Development Goals (UN SDGs). The focus of the Sustainability Education team has been on creating tools, initiatives and engagement efforts using competency-based frameworks such as GreenComp and EntreComp. Our aim is to empower our colleagues and students with sustainability knowledge and skills as well entrepreneurial mindsets, enabling them to tackle sustainability issues in- and beyond classrooms.

Session 1.1b

Embedding nature connection into the HE curriculum

Dr Chris Ribchester, Brad Hanney and Carly Butler, University of Derby

The climate and ecological crises are symptoms of failing human-nature relationships. Universities can play a role in repairing this fractured relationship but there has been limited research exploring how a connection to nature might be embedded into the HE student learning experience. Within this context, this paper reports on a co-researched, staff and student, project at the University of Derby, focused on lecturers who have begun to embed nature connectedness into their modules across different disciplines, including reflections on the approaches adopted, their motivations, perceptions of impact and the barriers encountered.

Session 1.1c

Ecological citizenship initiative

Dr Tim Hughes, Sebastian Ramdin, Connie Chilcott, University of Exeter and Phil Green, Falmouth University

The Ecological Citizenship is a diverse self organised group of students, academics and local community members who meet to respond creatively to the climate predicament by collectively sharing our head knowledge, our emotive knowledge and our practical knowledge (head, heart and hands) as a community.

We practice Active Listening, non-hierarchy, radical inclusivity and carry the ethos of 'no one is an expert'; everyone has a valid perspective to share.

We are based on Tremough Campus (Falmouth & Exeter Universities) and began off the back of student-led disruptive action on campus.

Parallel session 1.2, 09:55 – 10:55, Zoom link 2

Session 1.2a

Co-constructing a sustainability agenda through student podcasts

Professor Jennifer O'Brien, Hilson Mutungamiri and Craif Thomas, University of Manchester
This presentation will critically share how we used existing student assessment in sustainable development to co-construct a sustainability agenda with our communities near and far whilst enhancing ESD across the curriculum.

We will critically share our experience of turning existing student assessment that we framed with the UNs Sustainable Development Goals into podcasts.

We believe this is a replicable methodology that can enhance student employability and experience whilst catalysing sustainability transitions.

Session 1.2b

SustainaWHAT?!: Learnings and legacies

Dr Julie Gwilliam and Sian Gardiner, Cardiff University, Rosalind Beaumont and Chang Liu, Newcastle University, Fiona Cownie and Jack Olley, Bournemouth University

SustainaWHAT?! is a multi-disciplinary, student/ staff co-created, cross-faculty and now cross-institutional collaborative project which encourages PGRs to explore the relationship between the United Nations Sustainable Development Goals and their research, with a focus on their professional and personal development. Initiated in 2021 by Ros Beaumont at Newcastle University's multi, inter and transdisciplinary School 'X'. This question chimed with Julie Gwilliam (Cardiff University) and Fiona Cownie (Bournemouth University) when they attended a joint student / staff presentation at the 2021 AdvanceHE Sustainability Symposium. Come and find about what we've done so far and our future plans.

Session 1.2c

Embedding sustainability through your course, your future and our world

Professor Anne Tallontire, William Youn, Thom Cooper, Vasiliki Kioupi, Rosario Michel Villarreal and Clare Jackson, University of Leeds

Drawing on interviews and insights from case studies of modules and programmes, we provide insights into the process of embedding sustainability from different starting points, e.g. skills development, challenge-focused activities, inter-disciplinarity, experiential learning and values.

Through the Sustainable Curriculum we diffuse learning, rather than impose, which often makes for a complicated message.

A focus on school level strategies and programme curricula ensures that all students have experience of sustainability in their course content, develop skills for their future, and consider impact on our world.

Parallel session 1.3, 09:55 – 10:55, Zoom link 3

Session 1.3a

Transformative education framework at the University of Exeter: A holistic way of embedding institutional priorities into education and student experience

Dr Vrinda Nayak and Sean Porter, University of Exeter

The Transformative Education Framework (TrEF) is a pioneering educational initiative at the University of Exeter, aligning with our ambitious University Strategy 2030. The TrEF has three foundational pillars: inclusive education, racial and social justice, and sustainability which

emerged through collaborative endeavours involving both staff and students at the University. The framework serves as a catalyst, seamlessly integrating these principles into the very fabric of our curriculum, pedagogy, and assessment practices, transforming the learning experience of our students and preparing them for addressing the challenges associated with climate emergency, inequality and social injustice.

Session 1.3b

Embedding sustainability via the block curriculum

Leisa Nichols-Drew and Andrew Reeves, De Montfort University

De Montfort University (DMU) is a global university hub for the United Nations 17 Sustainable Development Goals (SDGs), for which we are honoured to be the hub for SDG16. Rather than using a 'one size, fits all' route for embedding sustainability, here, we champion enquiry and problem-based learning to embrace real-world examples, aligning to the DMU Learning for Life strategy, offering a transformative experience for ourselves, students, colleagues and the wider institution. One mechanism we use to embed sustainability is via our new block curriculum delivery; known as Education 2030.

Parallel session 2.1, 11:10 – 11:50, Zoom link 1

Session 2.1a

Embedding the SDG's in PGR training

Dr Jenny Davidson and Ros Beaumont, Newcastle University

Our project is a cross school collaboration piloting the use of an existing Sustainable Development Goal (SDG) action planning tool with Post Graduate Research students. The tool supports the students in their development as responsible researchers who have a strong sense of their role in tackling the SDG's as individual's and in their role as researchers now and in their future careers.

The approach builds on the use of the tool with Executive Education students and sits alongside core elements of the programme including reflective practice, and core content around sustainability.

Session 2.1b

Action-oriented ESD for community benefit: Two sustainability audit case studies

Dr Andrew Reeves, De Montfort University and Dr Sarah Gretton, University of Leicester

This case study presentation shares two contrasting approaches to partner students with local businesses to evaluate their sustainability impacts. Drawing on collaborative work between the University of Leicester and De Montfort University, the case studies show how the same original sustainability audit process can be adapted to offer mutual benefit for learners and the wider community within interdisciplinary modules, placements, dissertations and the co-curriculum. The case studies demonstrate diverse context-specific ESD strategies and how other higher education priorities such as employability, enhanced student experience and the civic university agenda can also be addressed.

Parallel session 2.2, 11:10 – 11:50, Zoom link 2

Session 2.2a

Embedding education for sustainable development in curricula using the CoDesignS ESD framework

Dr Theresa Nicholson, Valeria Vargas and Liz Price, Manchester Metropolitan University, Maria Toro-Troconis, ALDESD, Vicki Dale and Nathalie Tasler, University of Glasgow and Victoria Tait, University of Edinburgh

This presentation will introduce the CoDesignS ESD Framework which aims to support a co-creative approach to Education for Sustainable Development. The Framework builds upon the three pillars of: key competencies for sustainability, holistic heart-head-hands learning design for the Sustainable Development Goals, and transformative active learning pedagogies. Examples will show the wide applicability of the Framework across disciplines, practices and professional contexts. The presentation will also illustrate its potential for equipping educators and learners as change agents, its potential for capacity building, and its global reach.

Session 2.2b

The curriculum framework at the University of Greenwich: A multifaceted approach to embed sustainability in context

Dr Silvia Colaiacomo and Simon Goldsmith, University of Greenwich

The case study provides an overview of the Curriculum Framework at the University of Greenwich, where sustainability features as one of the key dimensions.

We understand that sustainability and the sustainable development goals can be differently enacted based on context and disciplinary areas. The approach we are taking as an institution encompasses the development of a shared understanding of key terms as well as a differentiated set of initiatives across content and scholarship development, pedagogy and assessment, course design, student-led initiatives and a Special Interest Group (SIG) for students and staff.

Parallel session 3.1, 11:55 – 12:35, Zoom link 1

Session 3.1a

Embedding sustainability in the curriculum: A beginner's story

Professor George Ofori, London South Bank University

The session addresses these symposium themes: Institution; and Educators. It presents the approach being taken in LSBU to embed sustainability into the curriculum; and how this connects to student needs and accords with institutional strategy. It considers the strategies and policies that set the framework for this embedding. It is based on a review of the corporate strategies and policies, and a field study of interviews of Deans of schools. It was found that embedding sustainability is a topic in all schools. Various influences determine its path; and staff members' knowledge in sustainability and competence in pedagogy need developing.

Session 3.1b

ESD in the arts and humanities: A key competencies approach

Katy Bernardelli, Cardiff University

Revised QAA Subject Benchmark Statements including ESD will become increasingly difficult to ignore in validation processes.

Aligning course learning outcomes to ESD key competencies may hold the key to embedding ESD across university curricula.

Taking a History degree as a case study, this paper seeks to explore how systems thinking, futures thinking, self-awareness, and integrated problem-solving can take an arts and humanities discipline beyond ticking the ESD box on future course validation. It will also demonstrate how ESD key competencies can add substantial value to university education through connecting ESD to employability skills.

Parallel session 3.2, 11:55 – 12:35, Zoom link 2

Session 3.2a

Building sustainability education into the curriculum across disciplines

Dr Dale Mineshima-Lowe, Dr Aideen Foley and Dr Stephen Willey, Birkbeck, University of London

Looking to build for a sustainable future and seeing our students as the future change-makers, Birkbeck is currently transforming its curriculum to embed environmental education across all disciplines within the College. A key part of this work is the development of knowledge and skills on environmental and sustainability issues that students can then take with them in their future careers as well as for use in their daily lives. The environmental education project will be creating new course programmes, as well as creating a pathway that makes many ESD modules available across disciplinary programmes.

Session 3.2b

Towards integrated impact: Enabling change agents to deliver pan institutional engagement with a more sustainable future

Laura Barritt, Dr Julie Gwilliam and Dr Loretta Newman-Ford, Cardiff University

The role of Higher Education in sustainability discourses has evolved dramatically over the last eight years. From initial incentives engaging with eco-friendly campuses, to more embodied practices carefully defining and developing specific knowledges, competencies and values (QAA Advance HE 2021). Building upon Cardiff University's clear strategic commitment, we aim to develop embedded educational services and practices to better shape and inform our learning environments. Working-with both students and staff we have taken a multi-layered approach to support this agenda including student induction activities, staff workshops and empowering key actors to integrate sustainability across institutional practices.

Parallel session 3.3, 11:55 – 12:35, Zoom link 3

Session 3.3a

Academic development: Embedding SDGs and sustainability competencies into programmes of study

Dr Mari Carmen Gil Ortega and Nicki Schantz, University of Bath

This presentation is based on the development, trial, and evaluation of a series of workshops to support academic staff in various disciplines designing, delivering, and evaluating curriculum transformation using a structured framework based on the principles of Education for Sustainable Development. The aim is to provide an accessible way to embed SDGs and sustainability competencies into our programmes of study, and in this way, provide students with the knowledge and skills required to tackle current global challenges.

Parallel session 4.1, 13:20 – 14:20, Zoom link 1

Session 4.1a

Provoking purposeful advocacy in ESD

Alex MacLaren and Linsey Thomson, Heriot Watt University

'Apathy' and 'Overwhelm' are common, though unwelcome, student responses to being confronted with Climate Change in their undergraduate degrees. We posit this can be acknowledged and positively transformed, through developing and articulating personal advocacy, alongside evolving critical thinking skills. The presenters reflect on several years of delivering mandatory, credit-bearing curricular ESD across a huge breadth of disciplines, conceived as a formative 'lens' for first-year undergraduates, to frame their subsequent disciplinary studies. The evolution of delivery suggests that overt purpose-led advocacy has the means to effectively engage and transform student learning in ESD.

Session 4.1b

Education for sustainable healthcare: From theory to impact

Dr Kathleen Leedham-Green, Imperial College London

All four UK health administrations have pledged that NHS services will have net zero climate impact by 2045. This will have wide-ranging impacts on every area of clinical practice. Maintaining patient and population health whilst achieving Net Zero targets requires advanced competencies in health promotion, patient engagement, systems sciences, and public health. Clinical curricula, however, are slow to respond remaining in a biomedical 'test and treat' paradigm driving ever-increasing specialisation, rising carbon intensity, increased waiting times, and widening health inequalities. What needs to change educationally for NetZero healthcare to become a reality?

Session 4.1c

A decade of teaching sustainable chemistry: Moving forward to stay still

Dr Katherine Haxton, Keele University

In 2012/13 a Sustainable Chemistry module was established at Keele University. Over the course of a decade the module has evolved significantly in delivery mode and student cohorts, adapting to the changing perceptions of what sustainability means for chemistry and the shifting educational paradigms that have characterised teaching in Higher Education. This presentation will review some of the highlights of the past decade, present longitudinal data on the demand for such modules in 'traditional' subjects, and share some of the innovative approaches to teaching this broad topic that have emerged such as systems thinking.

Parallel session 4.2, 13:20 – 14:20, Zoom link 2

Session 4.2a

Mainstreaming ESD across the curriculum

Professor Debbie Willison, University of Strathclyde

This presentation describes the move from embedding ESD into individual activities within an institution to mainstreaming ESD across all undergraduate and postgraduate provision. Details will be shared on how this will be monitored and delivered through existing University frameworks. Additionally, resources and mechanisms, provided by the institution's Centre for Sustainable Development, to support staff through the process will be shared.

Session 4.2c

A whole university approach: Strengthening the collaborations between the academic and operational strands of sustainability

Dr Tania Dias Fonseca and Stephanie Todd, Kingston University London

A whole university approach benefits the achievement of sustainability institutional targets in an inclusive and transformative way whilst contributing to the transition to a low-carbon society. Participants will learn how academic and operational sustainability strands work in close collaboration, ensuring our students, staff, and the wider community feel confident and equipped with the green skills needed to address sustainability issues. Having the students at the centre, we will present educational toolkits developed with students, how students' sustainability work stirred conversations, leading to interdisciplinarity partnerships across the institution and influencing institutional policies and practice.

Parallel session 5.1, 14:25 – 15:45, Zoom link 1

Session 5.1b

Understanding educators' motivation in relation to teaching climate change:

Examining emotional triggers, attitudinal factors, and preferred teaching approaches

Dr Mari Carmen Gil Ortega, University of Bath and Dr Enzo Ferrari Lagos, University of Salamanca

This presentation analyses the factors influencing educators' motivation to teach climate change. Emotions like concern, attitudes such as self-efficacy, and valuing collaborative activities drive their willingness. Favourable views on government measures enhance this motivation. The study outlines objectives to understand emotions, preferred topics, learning resources, and socio-demographic correlations. Results highlight worry, self-efficacy, and support for government actions as key triggers. Preferred resources include games, community projects, school gardens, and nature activities, emphasizing the need for varied approaches in climate change education.

Session 5.1c

Advocacy and action: Systemic approaches to climate education at University of the Arts London

George Barker and Nina Stevenson, University of the Arts of London

Since declaring climate emergency in 2019, a community of staff and students across UAL have been working to embed social, racial and climate justice principles across our curricula. This session outlines the strategies, approaches and the resources we have co-developed to support our students and staff to take up climate action and best deliver climate education in art + design contexts.

Session 5.1d

Sustainable gardens to share knowledge and grow the future

Dr Keireine Canavan, Cardiff Metropolitan University

Sustainable Growing Futures responds to sustainable demands and challenges of students research staff research scholars and university community to learn how to grow-you-own materials in a sustainable and low-carbon footprint way. Led by research academics students and staff from five university schools developed a series of gardens: botanical dye plants, fibre and materials, technology with CNC automated robot and interactive knowledge-transfer of technical information and research linked to website repository.

Pedagogic integrity addresses scholars societal and industries sustainable future needs, embedded interdisciplinary, research-led curricula for undergraduate credit-bearing modules, post graduate and cross-school academic research innovation.

Parallel session 5.2, 14:25 – 15:45, Zoom link 2

Session 5.2a

A 3Es perspective for the integration and embedding of ESD and SDGs into the business management curriculum

Dr Richard Howarth and Bilal Akbar, Nottingham Trent University, Barbara Tomasella and Alison Lawson, University of Derby

During 2023 an integrative literature was undertaken to explore and identify the integration and embedding of sustainability and the Sustainable Development Goals (SDGs) into the marketing curriculum in the UK. A survey of all marketing academics in the UK further

undertaken and a combined 3Es view/ framework for integration and embedding work in undergraduate and postgraduate education in marketing courses within the UK was developed. This framework is now being tested through Delphi interviews with marketing academics.

The research team propose that the 3Es framework has wider reach beyond the marketing curriculum and this session explores this.

Session 5.2b

Empowering students through extra-curricular modules and trans-disciplinary learning in the context of strategic marketing and entrepreneurship

Madeline Tan, University of Hertfordshire

Exploring Extra-Curricular Modules and Trans-Disciplinary Learning within the Marketing and Entrepreneurship module. This session explores the profound influence of extra-curricular modules in developing versatile skills beyond traditional academics. We delve into the significance of trans-disciplinary curricula, underscoring their role in shaping individuals equipped to tackle real-world challenges. Emphasis is placed on the interconnectedness of various knowledge domains; a case example-marketing and entrepreneurship module. The session also highlights Enactus, a student society platform that nurtures the spirit of social entrepreneurship and sustainability. Overall, this impactful session aims to redefine the future landscape of higher education and leadership.

Session 5.2c

Integrating and embedding ESD with the curriculum at Nottingham Business School

Richard Howarth and Muhammad Mazhar, Nottingham Trent University

This session will provide a case study insight into the approach to integrating and embedding ESD across the Nottingham Business School (NBS) curriculum. The importance of the NBS three-tier approach to this work, and the framework and direction established, is highlighted and course and module level examples are shared to address questions related to what and how, and what works best and why too.

Parallel session 6.1, 15:50 – 16:30, Zoom link 1

Session 6.1a

Creating an education for sustainable development module for staff: A case study from Kingston University

Dr Tania Dias Fonseca and Enoch Mintah, Kingston University London

In this session, you will learn how our staff, through a student partnership, developed an ESD module for staff. We utilised a 'train the trainers' approach and co-created a learning pathway to enable staff to incorporate ESD in their curricula and professional services roles. We will use examples of practice developed from the module assessment to illustrate the breadth of application of sustainability within, and between, different disciplines.

You will be invited to reflect on these examples to illustrate how sustainability may be embedded within your own practice.

Session 6.1b

Anti-greenwash education: Co-creating quality standards for sustainability learning

Dr Alex Ryan and Miriam Webb, University of Gloucestershire

Universities are increasingly vocal about embedding sustainability into course but there are no agreed standards for quality in ESD. This makes it hard for students to judge what they are being offered and fails to deliver the clarity the academic community needs to progress wider adoption into the curriculum. This student co-creation project led by the University of Gloucestershire with the University of the Arts London and King's College London tested pioneering standards usable across subjects, trained over 130 students as quality assessors

in sustainability learning and developed the Anti-Greenwash Education kit for students to use to lead change.

Parallel session 6.2, 15:50 – 16:30, Zoom link 2

Session 6.2a

Field notes: Identifying and designing regenerative experiences

Dr Caro McCaw, Meg Brasell-Jones, Xanthe Griffiths, Leroy Buxton, Sarah Kreft and Mick Abbott, Otago Polytechnic | Te Pūkenga

A year-long project saw three design students, two lecturers and a designer/educator collaborate as a team, to consider; “How can communication design be used as a tool to create nature-based experiences, where humans are an integrated part; redefining the way people positively connect with nature, landscape, and culture?” To counter the often bleak attitude towards our current social and environmental scenario, our ‘Field Notes’ reflects on a positive vision of what we want the future to be; a connected, abundant planet that is an integral part of our ways of knowing and doing.

Session 6.2b

Discovering climate fresk: A scalable peer-to-peer facilitator model promoting science and french

Noémie Jollet and Dr Robert Collins, The University of Strathclyde

Robert Collins, the ESD Lead of the Institute of Education, together with Teaching Fellow Noemie Jollet and members of the StrathCAN Network (the Strathclyde Climate Ambassadors Network) have been working with a local primary school to enhance community understanding of the current Climate Emergency. This cross-faculty project involved Initial Teacher Education (ITE) students and undergraduate French students from the Department of Humanities.

Climate Fresk was used as a primary resource and develops the simple concept of ‘cause and effect’ to introduce many of the challenging issues surrounding climate change while promoting languages, such as French.

Parallel session 6.3, 15:50 – 16:30, Zoom link 3

Session 6.3a

Co-identifying with students on the gaps in Higher Education and industry-demand sustainability skills from chemical engineering graduates

Dr Wennie Subramonian and William Merrill-Glover, University of Manchester

The demand for sustainability skillsets in chemical engineering is crucial to fulfil one of the Net Zero targets by generating 135,000 to 725,000 employment opportunities by 2030. This study is co-developed with students to identify the types of sustainability skillsets that are in demand and to what extent higher education is meeting this need. The study is presented to enable educators to identify the gaps and map their curriculum to the skillsets. Ultimately, the need of industries must be addressed through higher education to increase a graduate workforce, which can address sustainability issues faced by industries.

Session 6.3b

How do you really perceive a disabled colleague? Obstacle or inspiration?

Professor Patricia Perlman-dee, University of Manchester

Whilst the discussions are constantly about EDI, the discussion is often about students. How about working with disabled colleagues? This reflective session will discuss the prejudice and perceptions around working with a colleague who is a wheelchair user. The session will reflect

on preconceptions/challenges and perceived obstacles from educators as a new tutor (wheelchair used) was about to start working at the university. The session will also reflect on students' perception. The students did not sense obstacles, but inspiration and opportunities. What do you feel?