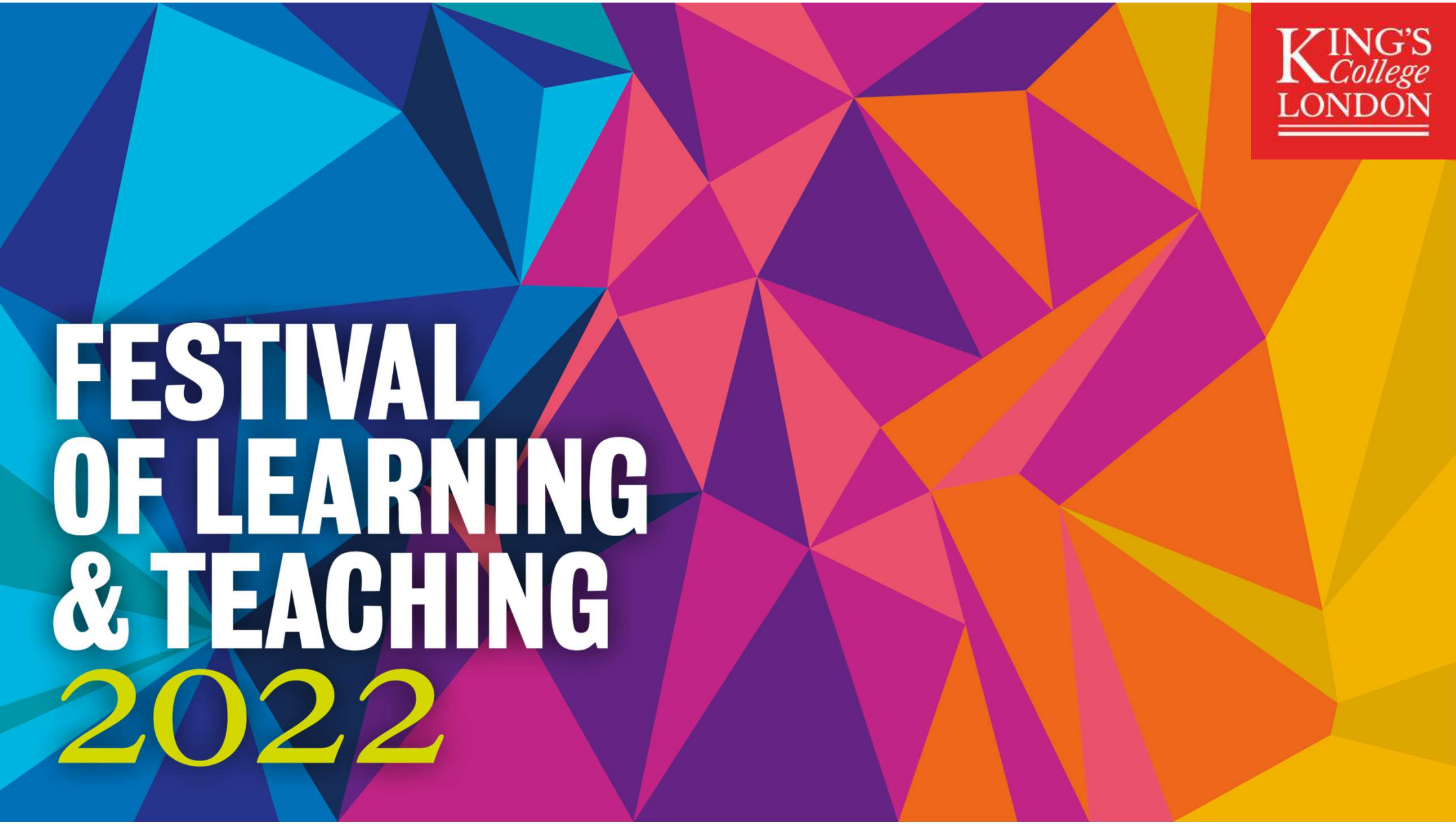
KING'S College LONDON
FESTIVAL
OF LEARNING
& TEACHING
2022

Sustainable Development Goal Curriculum Mapping

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Sustainability Team

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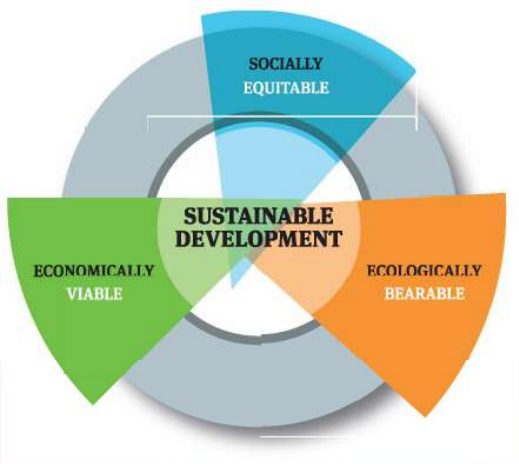
What is ESD

Education for Sustainable Development (ESD) aims to bring about the necessary personal and societal transformation by "*empowering learners of all ages with the knowledge, skills, values and attitudes to address the interconnected global challenges we are facing, including climate change, environmental degradation, loss of biodiversity, poverty and inequality*" (UNESCO).



Ultimately, *"ESD supports learners across all academic disciplines and subject areas to create and pursue visions of a better world. A world that recognises the interdependence of environmental integrity, social justice and economic prosperity, while acknowledging that environmental resources are finite and provide the foundation for our society and economy."* (QAA guidance)

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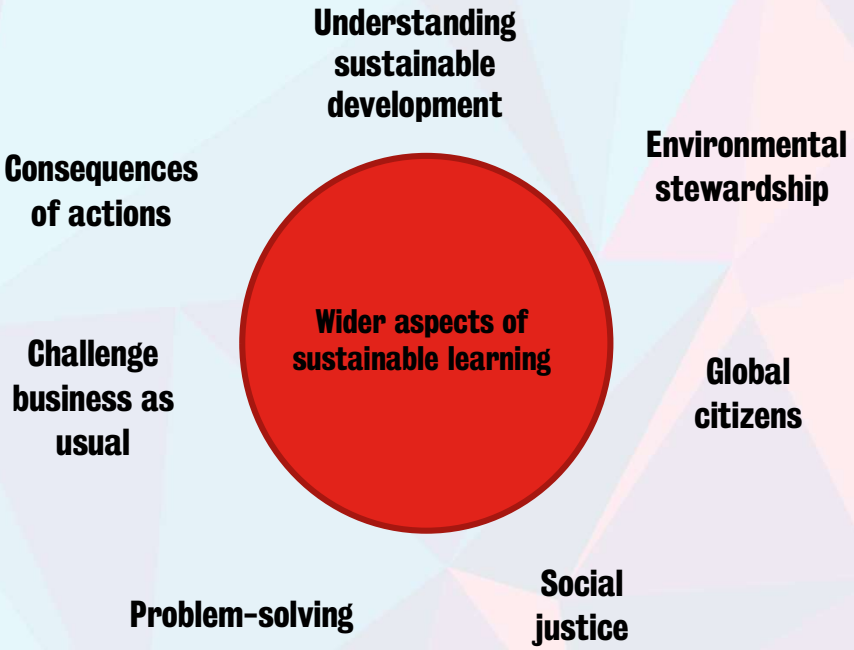

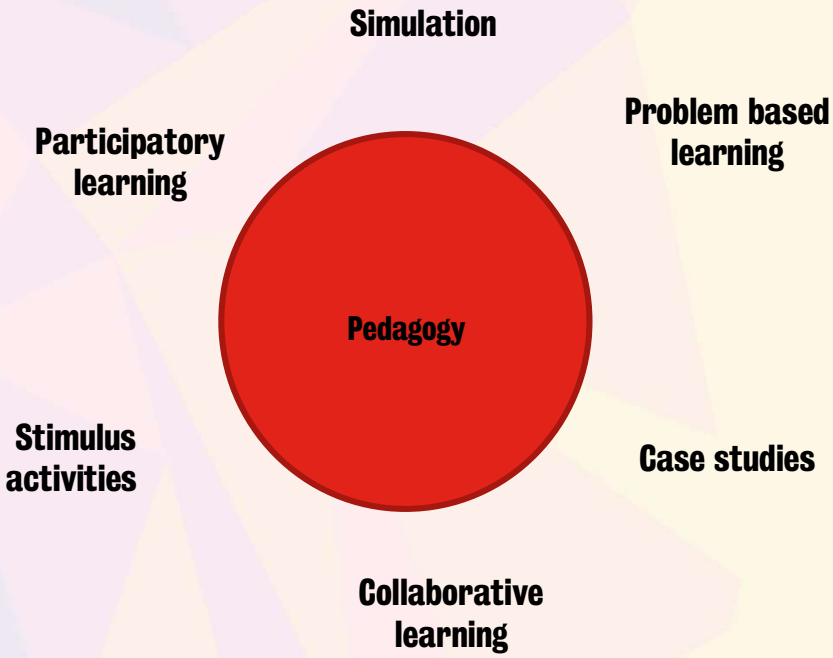

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Education for Sustainable Development (ESD) aims to encourage.

Key competency area	Example of outcomes
Systems thinking	recognise and understand relationships; analyse complex systems; consider how systems are embedded within different domains and scales; deal with uncertainty
Anticipatory or Future thinking	understand and evaluate multiple outcomes; create their own visions for the future; apply the precautionary principle; assess the consequences of actions; deal with risks and changes
Normative/ values thinking	understand and reflect on the norms and values that underlie one's actions; negotiate sustainability values, principles, goals, and targets, in a context of conflicts of interests and trade-offs, uncertain knowledge and contradictions
Strategic thinking	develop and implement innovative actions that further sustainability at the local level and further afield.
Collaborative working	learn from others (including peers, professionals, those external to their institution); understand and respect the needs, perspectives and actions of others; deal with conflicts in a group; facilitate collaborative and participatory problem solving
Critical thinking	question norms, practices and opinions; reflect on own one's values, perceptions and actions; take a position in the sustainability discourse
Self awareness	reflect on their own values, perceptions and actions; reflect on their own role in the local community and (global) society; continually evaluate and further motivate their actions; deal with their feelings and desire
Integrated problem solving	apply different problem-solving frameworks to complex sustainability problems and develop viable, inclusive and equitable solutions.

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Possible outcomes of quality student sustainability education & understanding

Using resources efficiently to limit the impact on the environment and other people	Looking at global problems from the perspective of people from around the world	Considering ethical issues linked to your subject	The causes of inequality in the world
Understanding how to create change	Understanding how human activity is affecting nature	Challenging the way we do things now (like business, politics, education)	Solving problems by thinking about whole systems - including different connections and interactions
Communicating complex information clearly and effectively to different types of people	Understanding how to create change	Looking at a problem using information from different subjects or disciplines	Planning for the long term, as well as the short term

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Wider sector:

Universities have it within their overall university strategies or their education strategies (fed into departmental plans):

- UCL – made a commitment that all students will have the opportunity to be involved in and study sustainability by 2024
- Keele – 96% of programmes have ESD embedded
- Surrey – ESD teaching across all existing and new programmes by 2024
- Sheffield – committed to embedding ESD into all taught courses by 2025

Need to make a formal commitment

- This allows for structure for educators and a framework
- Looking at incorporating within existing teaching, not re-inventing the wheel

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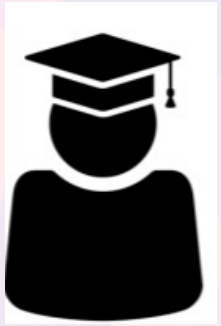
King's students experience of sustainable education (King's 100, 2021)

- 95% students concerned about the climate crisis
- 90% believe it is important for education on climate change and sustainability to be embedded in the curriculum
- Only 13% have learned most about climate change and sustainability whilst at King's – 8% from their degree and 5% from extra curriculum activities



National picture (taken from SOS-UK Skills Survey 2020)

- 36% say university is the place they've studied that has encouraged them to think and act to help the environment and other people the most
- 83% would like to see sustainable development actively incorporated and promoted through all courses

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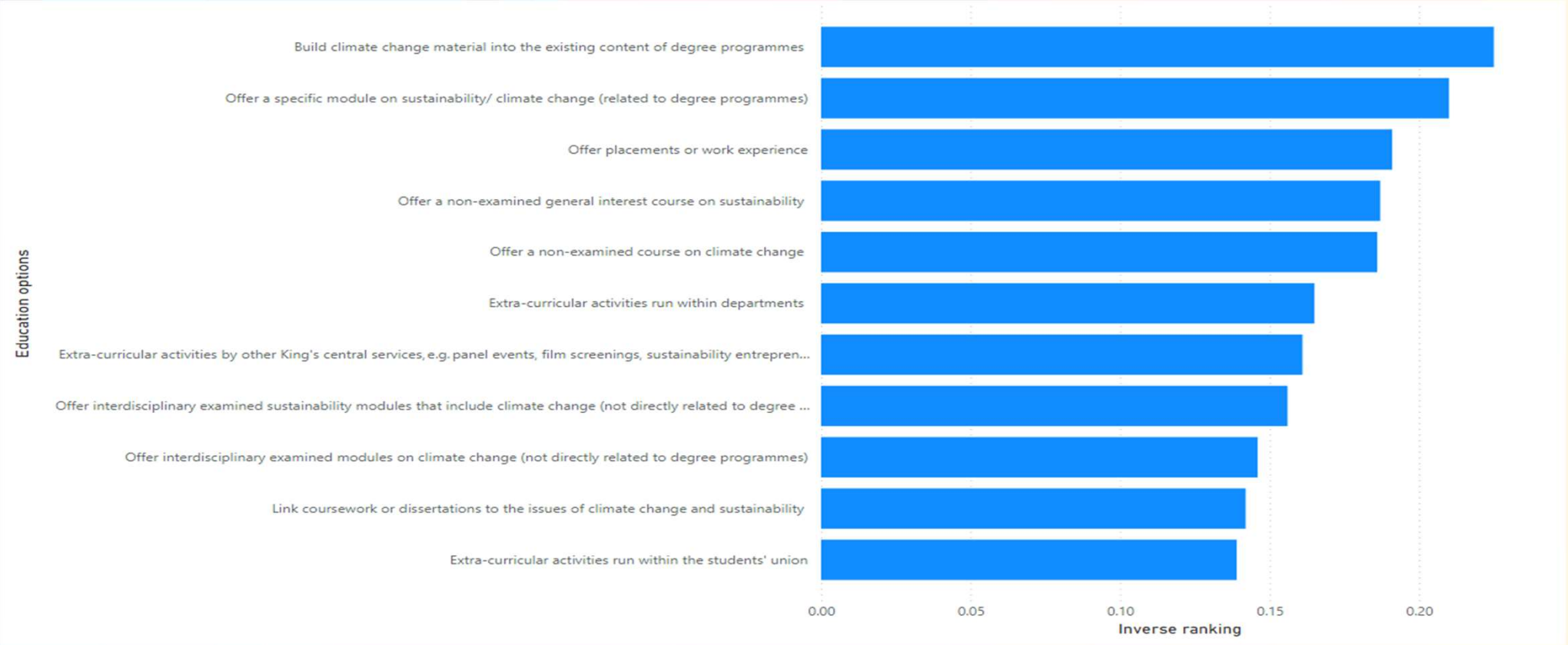
Popularity of suggested sustainable education initiatives



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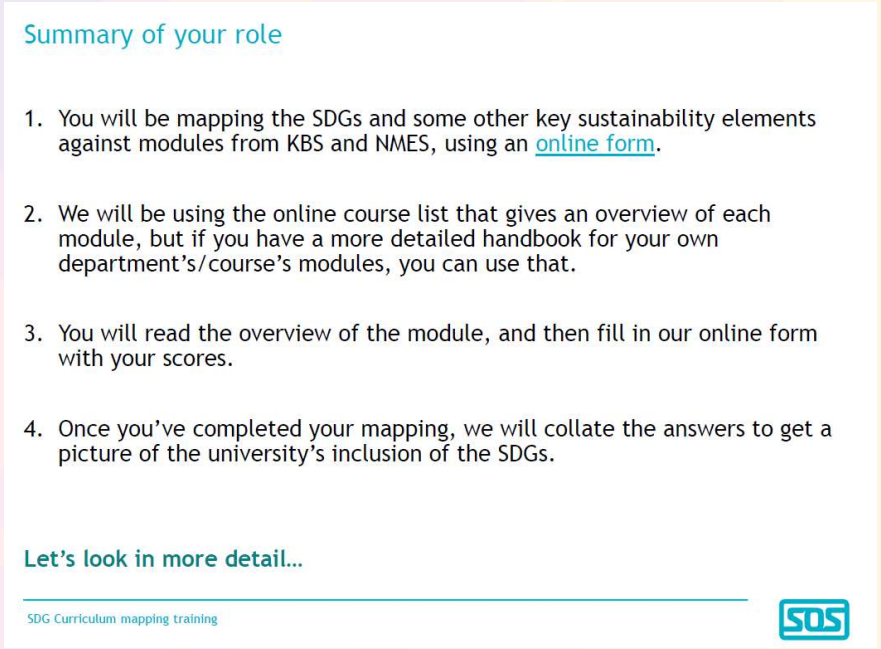
SDG Mapping & ESD review

- Student led mapping exercise carried out with SOS-UK
- Over 60 students were trained on what SDGs and ESD are and mapped ~1,000 modules across all faculties using a framework developed by UNESCO and SOS-UK
- This approach provides an example of students actively contributing to the embedding of ESD at King's by allowing them to identify what they thought ESD was
- Check out the form here



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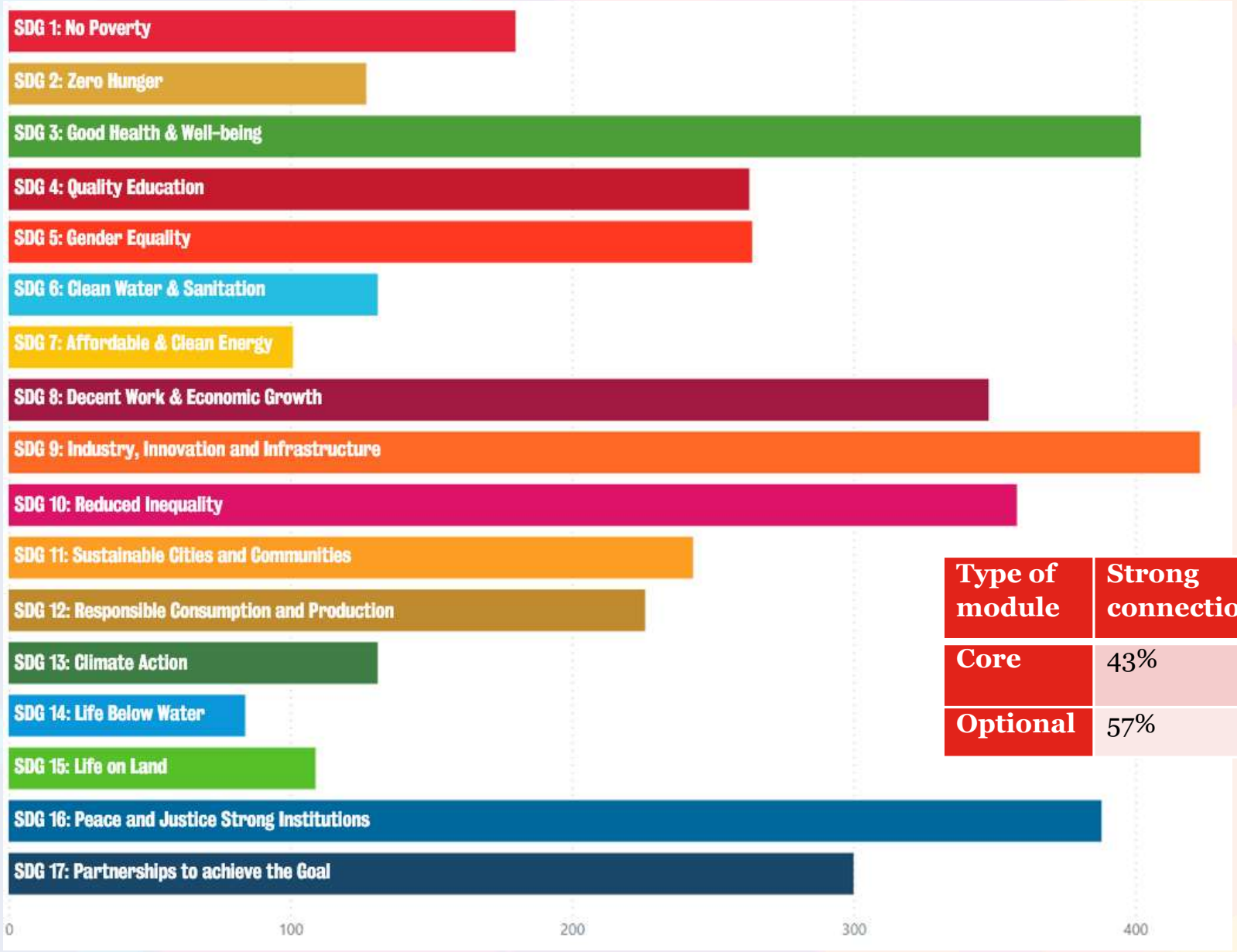
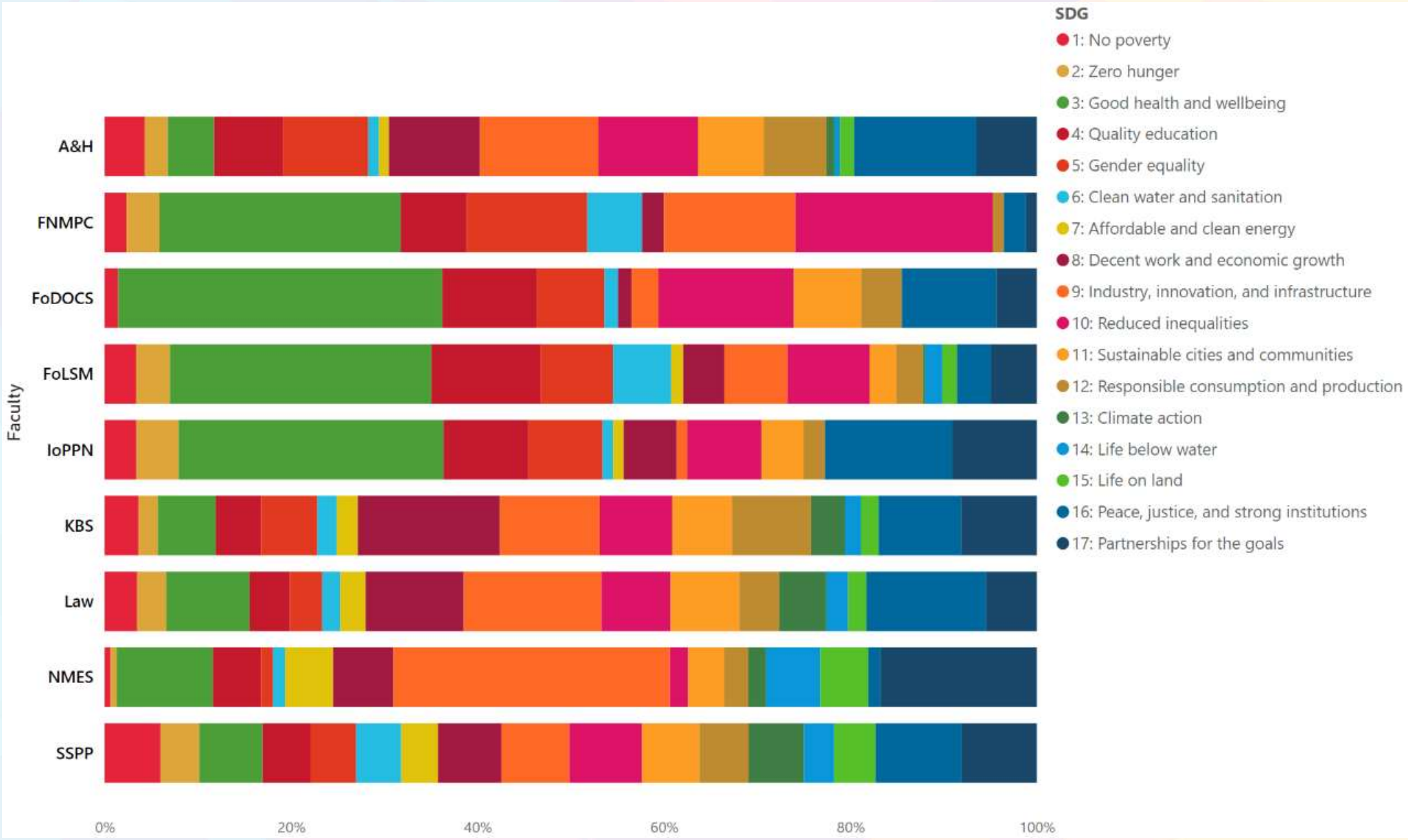


Type of module	Strong connection	Slight connection
Core	43%	40%
Optional	57%	60%


SDG
1: No poverty
2: Zero hunger
3: Good health and wellbeing
4: Quality education
5: Gender equality
6: Clean water and sanitation
7: Affordable and clean energy
8: Decent work and economic growth
9: Industry, innovation, and infrastructure
10: Reduced inequalities
11: Sustainable cities and communities
12: Responsible consumption and production
13: Climate action
14: Life below water
15: Life on land
16: Peace, justice, and strong institutions
17: Partnerships for the goals
Faculty
A&H
FNMPC
FoDOCS
FoLSM
IoPPN
KBS
Law
NMES
SSPP
0%
20%
40%
60%
80%
100%

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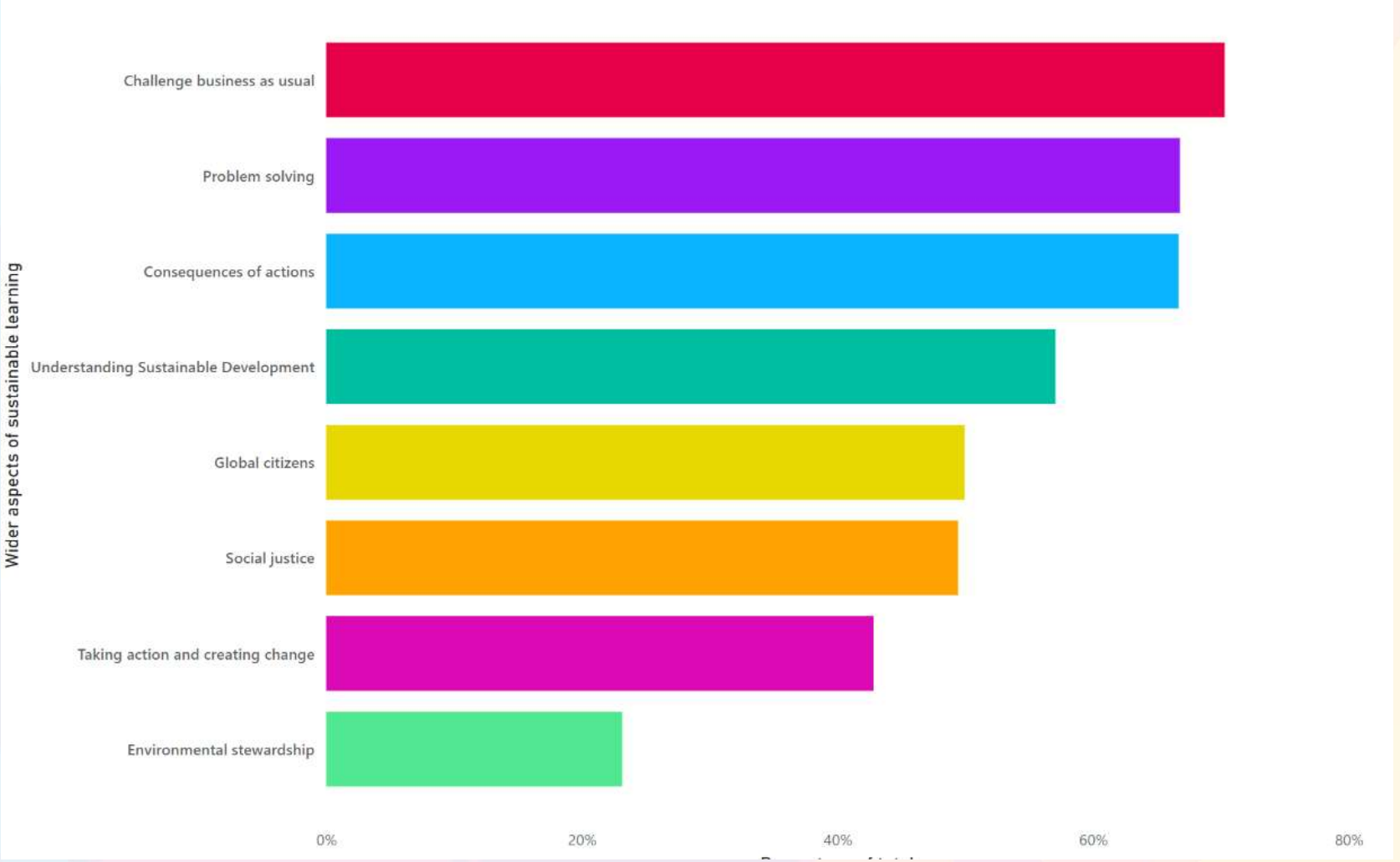
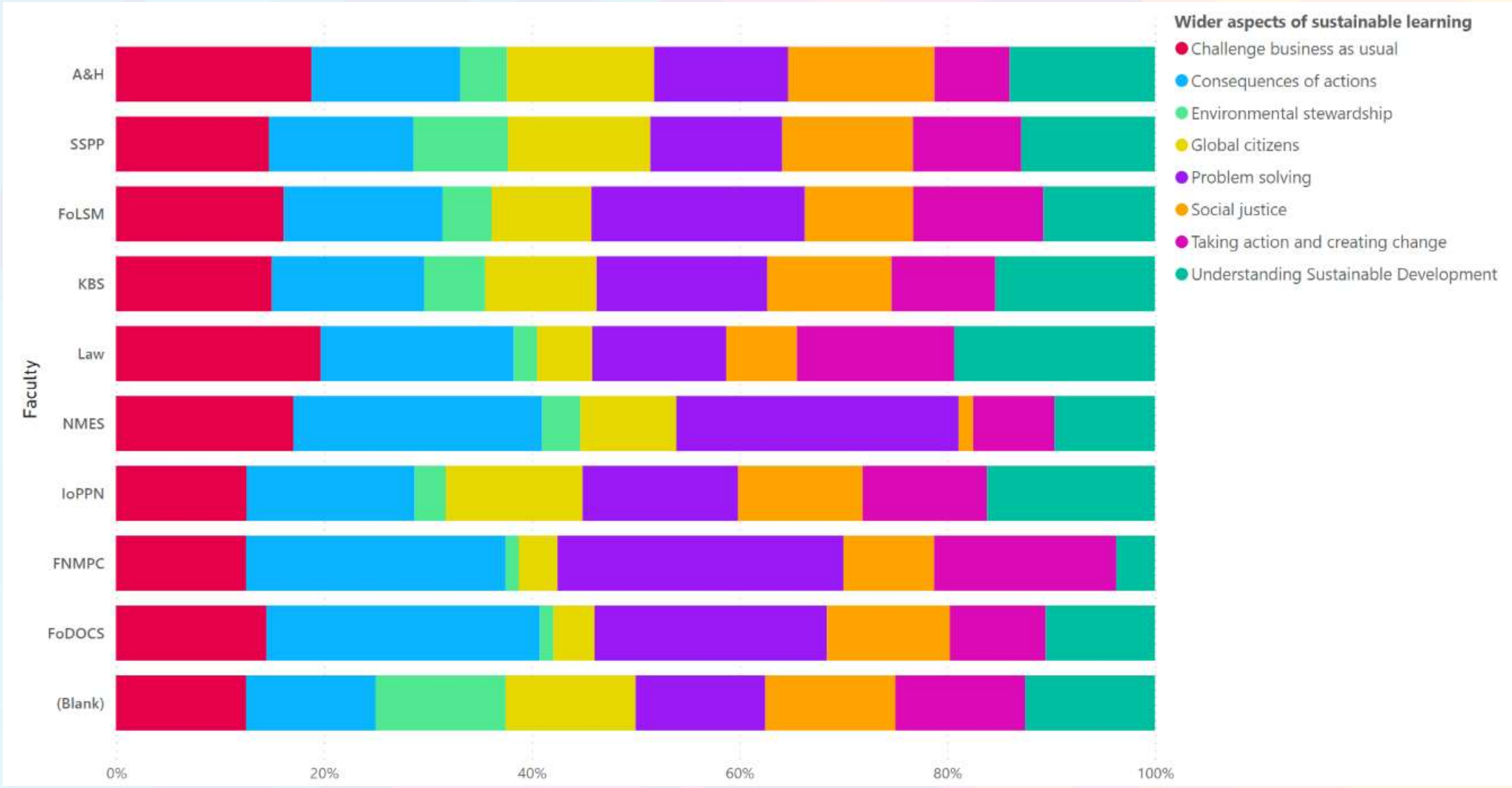
Wider aspects of sustainable learning




Wider aspects of sustainable learning
Challenge business as usual
Consequences of actions
Environmental stewardship
Global citizens
Problem solving
Social justice
Taking action and creating change
Understanding Sustainable Development
Faculty
A&H
SSPP
FoLSM
KBS
Law
NMES
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100%

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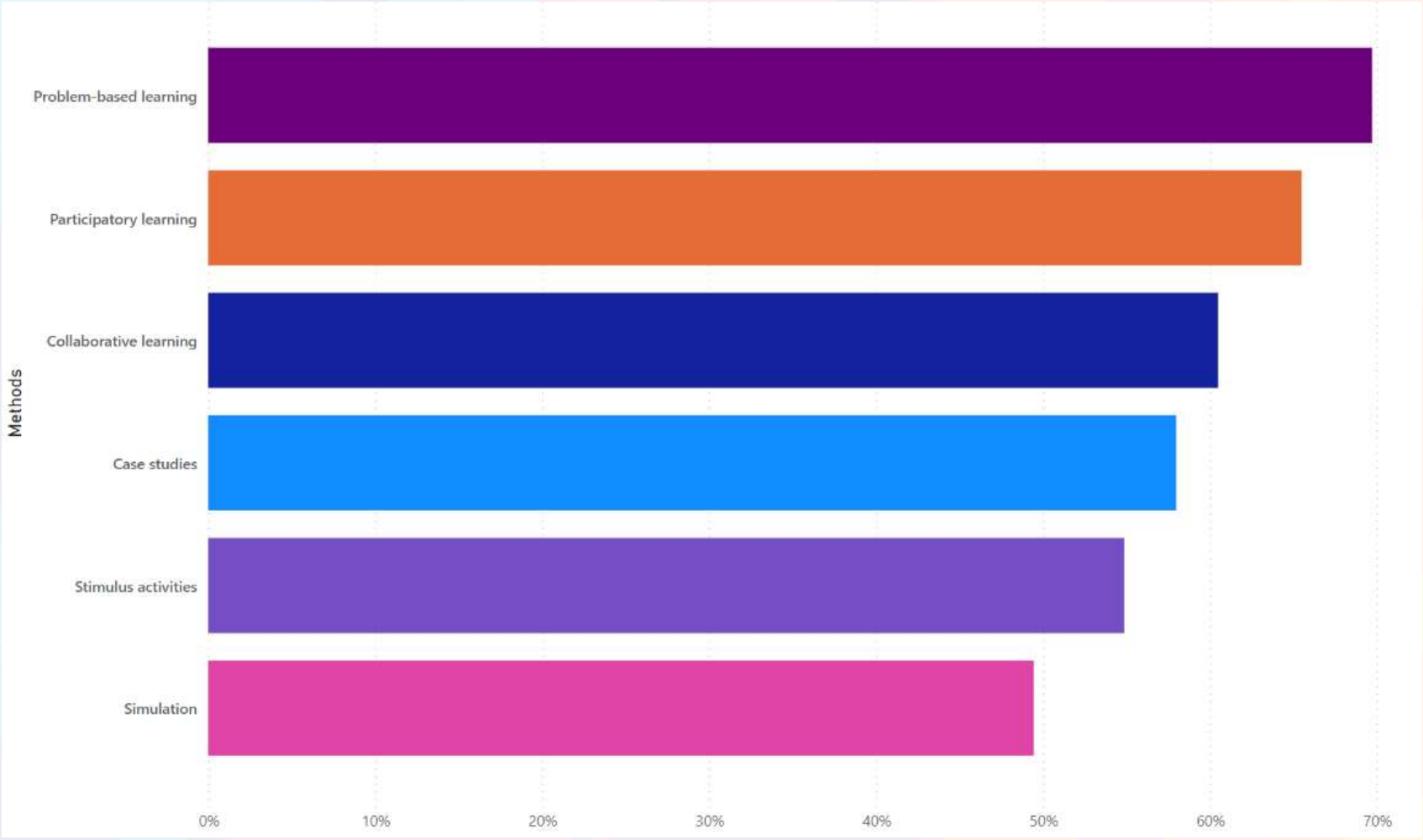
Methods of teaching



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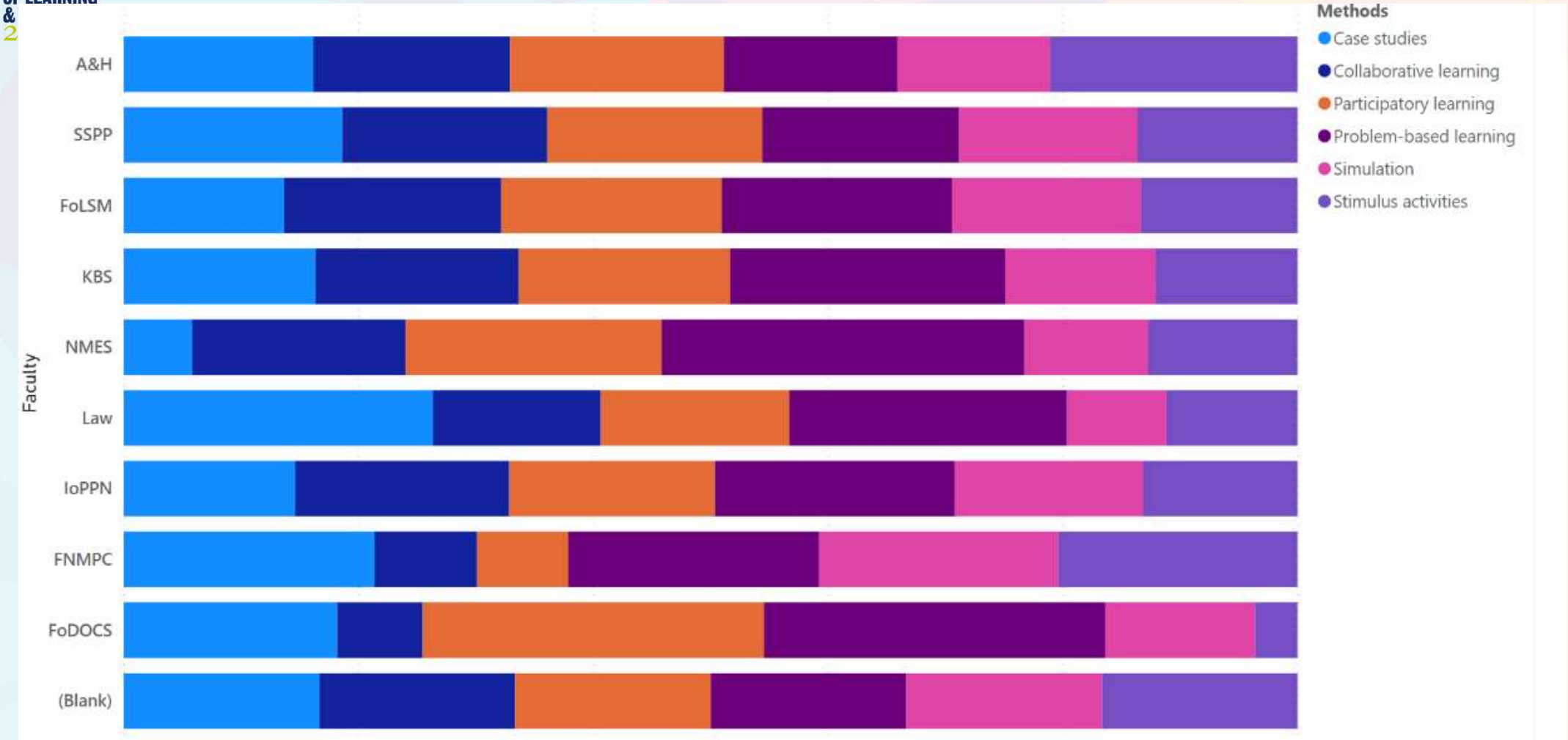

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Executive summary

- **Following the review in 2014, we have made ESD progress:**
  - *Formal curriculum opportunities:* mandatory Business Ethics & Sustainability & Clinical Humanities & Wellbeing modules, Sustainability in Practice module, nursing in the process of embedding sustainable teaching
  - *Informal curriculum:* Internationalisation, Service, Volunteering, co-created KEATS Sustainability module
- **The majority of modules that address SDGs are optional (60% vs 40%)**
- **SDGs are not consistently weaved throughout the curriculum**
- **The extent to which SDGs are addressed differs starkly from one faculty to another**
- **Only very few modules are open to students from other faculties**
- **Continuing student demand shows that we must raise our ambition further**

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Student feedback from mapping exercise:

"I found the Curriculum Mapping to be a really enlightening experience: not only did I get to learn about the SDGs and consider their presence in my own modules, but I also learned more about the type of content that King's teaches in modules and courses that I don't take. To be able to evaluate these modules and **indicate areas where the teaching of sustainable issues can be improved made me feel like I was making an important contribution to King's, the impact of which will hopefully resonate long after I graduate.“**

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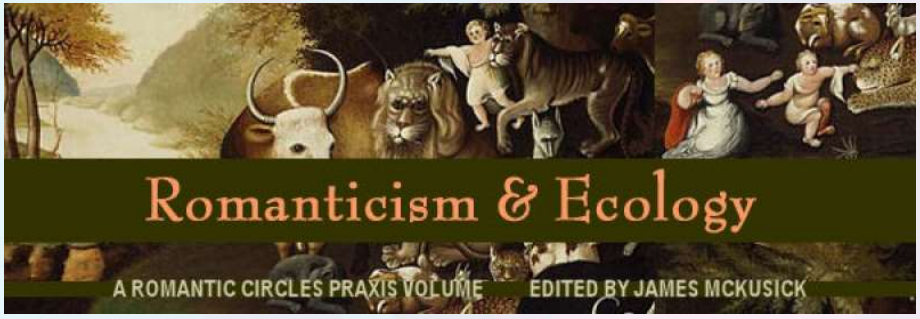
Good practice examples at King's



- **KBS** – Business Ethics & Sustainability: mandatory for all first-year students
- **Dentistry** – Clinical Humanities & Wellbeing: mandatory integrating creative and critical thinking into the clinical curriculum
- **SSPP** – Sustainability in Practice: collaborative, interdisciplinary problem-solving living lab project
- **A&H** – Industry, Climate, Futurity: integrated social and environmental sustainability
- **NMES** – Energy & Sustainability: included in assessment, SDG focus and sustainability in breadth

4 QUALITY EDUCATION

10 REDUCED INEQUALITIES

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London Student Sustainability Conference (LSSC)

- Conference aimed to showcase student sustainable work & research and bring students together
- SDGs used as a frame for the conference
- Started in 2019 at City University
- City x King's collaboration in 2021 – over 300 students attended to present their sustainable work & research
- In 2022 – six London universities took part: City, King's, UCL, LSE, Westminster, Imperial
- In 2023 - 11 London universities are taking part so far
- Organised by central staff team (staff member from each participating university) and student delivery group (25 students in 2022)

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KEATS Sustainability & Climate module

- Designed by King's students, alumni and staff
- King's community at the heart of the module
- Bottom up assessment approach

Content

- Environmental, social and economic sustainability
- Interactive content – forums, padlets and seminars to engage with the content and meet other students, staff and alumni wanting to learn more and take action
- Sustainability podcast, videos, interviews – as well as written information
- Recognition – certificate (two tiers), HEAR record. Long term goal is accreditation.
- Assessment – SDG Curriculum mapping. Planning what this looks like for 22/23 (Science Gallery, S-A space).

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What should you focus on when delivering a module that is ESD focused?

1. The multi-dimensional nature of sustainable challenges
2. Student co-creation
3. Moving from theory to practise – incorporating and progressing from knowledge based tasks, through inter-disciplinary teaching to trans-disciplinary perspectives

We're trying to not change what we do, but do what we do differently
Using opportunities to adapt and to change the way we teach, the way students learn in their own disciplines in a holistic way

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Questions to consider when evaluating ESD

- The course has helped to consider what **global citizenship** means within the context of the discipline and for future professional and personal lives
- The course has helped to develop a **future-facing outlook**, learning to think about the **consequences of actions**, and how systems and societies can be adapted to ensure sustainable futures
- The course has encouraged thinking about issues of **social justice, ethics, and wellbeing**, and how these relate to ecological and economic factors
- The course has modelled democratic and **participatory learning approaches**
- The teaching, learning and assessment activities are linked to **real-life concerns**

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- Is it embedded within core curriculum or is it optional?
  - If you're requiring students to go out of their way, some will simply be at a disadvantage. Students are also less likely to engage
- Is it a one off lecture where students are unable to engage further?
  - This isn't ESD and sees itself as a tick-box
- Is it included in assessment?
  - Assessments are the best way to comprehend a students understanding of the subject, how have you changed assessments to fit this?
- What do students understand about sustainability within their fields – is it truly interdisciplinary?

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Linking your area to sustainability

How is my discipline perpetuating the climate crisis?

How can my discipline drive solutions of sustainability?

How can we use our discipline to tell global stories?

How will my discipline be impacted by the climate crisis?

How are people in my discipline experiencing the climate crisis?

How can my graduates take sustainability into their careers?

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Padlet

Wider aspects of sustainable learning

Pedagogy

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Areas of co-creation for ESD

- Seminars
- Assessment
- Events
- Case studies
- Development of lectures
- Field trips
- Volunteering opportunities
- University recruitment (staff and students)
- Grants, scholarships, bursaries
- Policies and strategies

For further information:
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