

**Date:** Thursday, 2<sup>nd</sup> May 2024

**Time:** 1pm – 2.45pm

**Venue:** Online via Zoom

**Resources:** [Available here](#)

## **Sustainability Competencies, Skills, and Graduate Attributes ESD TSN may 2024 – summary & minutes**

Please find below a short summary of the meeting, followed by detailed minutes (including attendee list).

### **Introduction – competencies, skills, and graduate attributes**

Scott Strachan, as part of introducing the event, addressed the meanings of the event's key terms: Competencies, skills, and graduate attributes. He highlighted that these concepts are interconnected, and that specifically competency development requires a shift from input-oriented knowledge-based education to outcome-oriented competence-based education, as competences transcend disciplines and have to be developed by the learners themselves. However, competencies are not inherently linked to sustainability – to ensure they truly are "sustainability competencies", they need to be developed through learners engaging with sustainability-related challenges and content.

### **Case study 1: Adopting the CoDesignS ESD Framework for Integrating Sustainability Competencies. Theresa Nicholson, Manchester Metropolitan University**

Theresa presented the CoDesignS framework, co-led by Manchester Metropolitan University in collaboration with various institutions. This framework integrates UNESCO competencies, the Sustainable Development Goals (SDG) learning objectives, and transformative pedagogies. The framework highlights the need for ensuring that all competencies are addressed in a balanced way (rather than overfocussing on some and underfocussing on others) within study programmes, and advocates for a "Head Heart Hands" approach to learning, addressing cognitive, socio-emotional, and action-oriented aspects. Remarkably, the CoDesignS Toolkit Planner helps help to map learning activities against competencies, learning outcomes, and pedagogies. Based on this, MMU have successfully redesigned modules to align with graduate attributes and institutional sustainability goals, in line with their plans to embed ESD across all programs by 2026.

### **Case study 2: Beyond the UN competencies for a more nuanced human nature relationship. Rehema White, University of St Andrews**

Rehema's presentation centred around going beyond the UNESCO competencies. It started by exploring the assessment of the UNESCO competencies, highlighting a QAA-funded project led by the University of St Andrews, as well as the importance of human-nature relationships. The presentation discussed the development of a competency survey and emphasised the need to go beyond these kinds of intellectual approaches to incorporate emotional and behavioural considerations. It delved into the importance of human-nature relationships, outdoor learning, cultural contexts, and considerations beyond anthropocentrism, proposing the development of a new competency focused on nature relations and rights.

### **Case study 3: Developing a module using the Inner Development Goals. Valerie Jackman, College Development Network**

Valerie presented the Inner Development Goals (IDGs) framework, a set of 5 overarching capacities for inner growth, as a lens through which we can look at changes within us to achieve the changes we need for a more sustainable world. Based on this framework, a team at West Lothian College developed the Change Sustain Attain unit, aligning it with the college's vision, the meta skills framework, and the Sustainable Development Goals, with a focus on student collaboration and self-assessment. This cross-curricular module, co-created with students, encourages reflection and personal growth and guides student to develop their chosen IDGs. The module has been introduced in AY 2023/24 and will soon go into its second iteration. The developers are happy to engage and collaborate with other institutions who are interested in their approach.

### **Breakout rooms:**

Five breakout room discussions included topics such as strategies to secure staff buy-in, the need to align graduate attributes with competencies and ESD, connections between learning/teaching and campus/operations, the importance of sharing approaches across nations, concerns about competency-based teaching approaches, and much more.

## **FULL MINUTES**

### **Attendees:**

Aimee	Byrne	Technological University Dublin
Alice	Jackson	University of Leicester
Alison	Riley	The University of Sheffield
Beatrice	Anomah	Students Organising for Sustainability (SOS) UK
Beth	Brownlee	West Lothian College
Carole	Maudsley	Ayrshire College
Catherine	Shephard	Manchester Metropolitan University
Chelsie	Naylor	Bradford College
Denise	McNulty	Newbattle Abbey College
Diana	Pritchard	University of Bedfordshire
Fern	Baker	Bournemouth University
Georgiana	Allison	Lancaster University
Georgina	Gough	University of the West of England
Gordon	McLeod	University of Glasgow
Helen	Puntha	Nottingham Trent University
Jo Anna	Reed Johnson	University of Reading
John	Thorne	Glasgow School of Art
Julie	Gwilliam	Cardiff University
Justin	Walker	sparqs - student partnerships in quality Scotland
Laela	Purvis-Greenway	University of Liverpool
Laura	Middlemass	University of Sunderland
Liz	Price	Manchester Metropolitan University
Louise	Logan	King's College London
Lucy	Patterson	The University of Edinburgh
Lucy	Clarke	Birmingham Newman University

Mark	Langdon	University of the West of Scotland
Martin	Braun	The Open University
Melanie	Thomas	Nottingham Trent University
Neva	Mowl	University of Salford
Pamela	Styles	Swansea University
Pamela	Mathieson	Royal Conservatoire of Scotland
Paul	Warwick	University of Plymouth
Peter	Rands	Canterbury Christ Church University
Rachel	Leech	Gateshead College
Rose	Lyne	University of Aberdeen
Roslyn	Taplin	SOAS University of London
Sarah	Shea	Glasgow Kelvin College
Sarah	Urmson	Myerscough College
Tania	Fonseca	Kingston University
Vivien	Bell	University of Salford
Mike	Bartle	University of Dundee
Valerie	Jackman	College Development Network
Scott	Strachan	University of Strathclyde
Rehema	White	University of St Andrews
Theresa	Nicholson	Manchester Metropolitan University
Betsy	King	Learning for Sustainability Scotland
Christine	Calder	Dundee and Angus College

**Apologies:**

Nick Bunyan

Severine Monvoisin

Paul Vare

<b>Video time</b>	<b>SUMMARY OF DISCUSSIONS</b>
0.00	<p><b>Welcome</b></p> <p><i>Kathrin Möbius, EAUC Scotland, and Scott Strachan, University of Strathclyde</i></p> <p>After Kathrin introduced the event, including some polls around the audience’s <a href="#">knowledge</a> and <a href="#">use</a> of the UNESCO competencies, Scott introduced the key terms of the event: Sustainability Competencies, Skills, and Graduate Attributes.</p> <ul style="list-style-type: none"> <li>- <b>Graduate Attributes:</b> Scott ran a quick schematic exercise looking at various universities and their graduate attributes. It showed that, between 5 different Scottish universities, all had included Skills as part of their language around graduate attributes. Four out of five use the term “Develop(ment)”, and three using experiences and qualities.</li> <li>- <b>Skills:</b> Can be “soft” or “hard”, often language employers use and look for specifically and therefore students are looking to developed, especially</li> </ul>

	<p>discipline specific skills can be taught, but transferrable skills might require more diverse approaches.</p> <ul style="list-style-type: none"> <li>- <b>Competencies:</b> Interplay of knowledge, skills and capacities. Sustainability competencies specifically enable problem solving of real-world sustainability challenges and opportunities.</li> <li>- <b>The 8 UNESCO Sustainability Competencies:</b> Synthesised from other competency frameworks in the literature. Can be categorised into ways of thinking (head), ways of being (heart), and ways of doing (hand). Integrated problem solving (also referred to as interdisciplinary competency) is sometimes seen as at the centre of the other competencies. Find the full list of the 8 competencies below, and read more about them in the QAA/Advance HE guidance [LINK-----] or in this <a href="#">UNESCO guidance document</a>.</li> </ul> <ul style="list-style-type: none"> <li>• Critical thinking competency (questioning practices, opinions, norms)</li> <li>• Systems thinking competency (see &amp; understand complex relations)</li> <li>• Anticipatory competency (considering multiple outcomes, creating visions)</li> <li>• Strategic competency (develop and implement actions)</li> <li>• Collaboration competency (learning from/working with others)</li> <li>• Integrated problem-solving competency (interdisciplinary approach)</li> <li>• Self-awareness competency (reflecting on own values, role, action, desires)</li> <li>• Normative competency (reflecting on norms, values, negotiating despite uncertainty)</li> </ul> <p>Embedding the development of these competencies requires a shift from input-oriented knowledge-based education to outcome-oriented competence-based education. The competences transcend disciplines and can not simply be taught but have to be developed by the learner themselves.</p> <p>The competencies generally are not inherently sustainability related – they are generally good competencies to develop to increase learner’s employability. They support development that is good for learner’s careers – but also for society, specifically if these competencies are developed through learners engaging with sustainability-related challenges and content.</p> <p>For references, please see the <a href="#">event slides</a>.</p>
<p><b>16:13</b></p>	<p><b><u><a href="#">Adopting the CoDesignS ESD Framework for Integrating Sustainability Competencies - Tools and Lessons from a Bootcamp Experience</a></u></b></p> <p><i>Dr. D Theresa Nicholson, Reader in the Department of Natural Sciences at Manchester Metropolitan University</i></p> <p>Theresa presented the <a href="#">CoDesignS framework</a>, a framework and mapping tool which were collaboratively developed and is currently being used by MMU to embed ESD across all their programmes. See more links and references on her <a href="#">slides</a>.</p> <p><b>The CoDesignS framework:</b></p> <ul style="list-style-type: none"> <li>- Developed in collaboration with various other institutions and organisations, comes with an app.</li> </ul>

- Three key ingredients:
  - o The 8 UNESCO competencies
  - o Specific Learning Objectives around the Sustainable Development Goals (SDGs)
  - o Transformative pedagogies and teaching methods

**The competencies:**

- Some of these are standard in their teaching, such as critical thinking, collaboration. Others may need more proactive inclusion, such as normative competency and self awareness.
- CoDesignS framework invites to examine the distribution of the competencies in the curricula – is there balance? How can we achieve balance? How can we encourage students to draw links between the competencies and graduate attributes.
  - o MMU Graduate Attribute themes include: Digital, Connected, Interpersonal, Autonomous, Sustainable, Enterprising
  - o Align well with the key competencies – e.g. Connected links to collaborative competency and normative competency (talks about collaboration and recognising and respecting diversity)

**The Learning Objectives:**

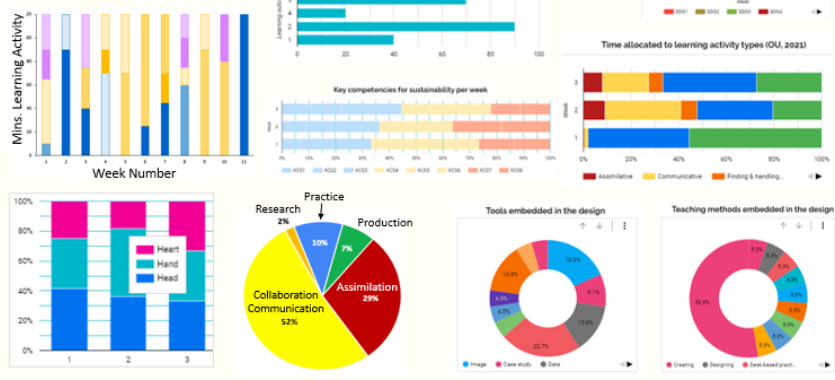
- Examine curricula for integration of relevant SDGs. Address these individually – but also collectively to emphasise their interconnectedness.
  - o Head Heart Hands approach: learning requires cognitive thinking processes to understand concepts, but for learning to be transformative, it also needs to address the socio-emotional domain (values, relationships). Learning should also result in action and changed behaviours.
  - o Are these elements in our curricula? Is there balance?

**Transformative Active Learning:**

- Two aspects:
  - o Balancing the types of learning activity: Idealised breakdown promotes experiential, active learning (70%) over didactic/assimilative (10%) and purely communicative (20%) methods.
  - o Constructively aligning pedagogies (what you teach with the intended outcomes and assessment), and recognising the role of active learning pedagogies – learning by doing through active participation.
- CoDesignS Toolkit Planner: Enter your learning activities and map these against learning outcomes, competencies, etc. This is then linked to a dashboard – some longitudinal, some short term stats are given out (see slide below)

## The CoDesignS ESD Dashboard

<https://codesignsesd.org/codesigns-esd-toolkit-planner/>



- MMU went to this process at the bootcamp and applied the toolkit to a first year module called "Professional Geographer": input of data, and then using outcomes to target the redesign of the module. For example, in pre-design phase, strong imbalance around competencies towards ways of thinking. This resulted in redesign of assessment from traditional document format to online portfolio. Also stimulated closer link to graduate attributes.

### On institutional level:

- Adopting the framework to embed ESD in all programmes by 2026 (institutional sustainability strategy goal)
- They have developed a suite of interactive online training modules around the principles of the CoDesignS framework for staff.
- Engagement and Evaluation Strategy: Defining 4 levels of engagement with ESD that becomes part of evaluation process. Modules will be audited annually against these levels. This will include student voice and staff surveys.

Any questions – get in touch with Theresa: [d.nicholson@mmu.ac.uk](mailto:d.nicholson@mmu.ac.uk)

### Question from the audience:

**Mark Langdon:** Does it have an impact? Does it really affect system change when the current system makes paradigm shifts nearly impossible?

**Theresa Nicholson:** It's difficult to measure – we don't really know what happens once students leave. But we'd hope it would make a difference. Sustainable Development in itself is a wicked problem. Trying to work out what impact we have on that is maybe even difficult.

**Scott Strachan:** We are all still at the early stages of this, nobody is too far along the road to convincingly evidence the impact these kinds of approaches may have. To really determine wide scale impact, you'd need mainstreaming of ESD. This brings us back to the institutional challenges around mainstreaming ESD when approaches are different from business as usual – resource, staff training, accreditation (although the latter may become less of a challenge). For now, we

	<p>are hopeful – and this also should have an impact on students: more meaningful learning, employability, etc.</p>
<p><b>34:28</b></p>	<p><b><u><a href="#">Beyond the UN competencies for a more nuanced human nature relationship</a></u></b>  <i>Dr Rehema White, Senior Lecturer at University of St Andrews and Chair of Learning for Sustainability Scotland Steering Group</i></p> <p>Some of us who have been working with the competencies have wondered: Is this enough? Could we continue to tweak the competencies? Rehema’s presentation discusses how we can go beyond the eight competencies.</p> <p><b>Assessment of impact and competencies:</b></p> <ul style="list-style-type: none"> <li>- A QAA-funded project led by University of St Andrews developed a competency survey as part of a framework for monitoring and evaluating ESD, which comprises four questions per competency and can be utilized by both students and staff.</li> <li>- Recognising survey's intellectual focus, there's a need for emotional and behavioural considerations, particularly regarding normative and self-awareness competencies involving engagement with values and reflection on knowledge.</li> <li>- Concerns were raised about the competencies' lack of inclusion regarding human-nature relationships, cultural and spiritual aspects, and the need to move away from anthropocentric approaches toward more comprehensive perspectives.</li> <li>- Recognising the need for stronger emphasis on the emotional aspect alongside intellectual and practical considerations, highlighting the importance of experiencing physical nature spaces and acknowledging broader influences on value acquisition beyond intellectual engagement.</li> </ul> <p><b>Human-nature relationships</b> are fundamental to thinking about sustainable development. However, young people engage less with nature (nature deficit), and engaging with nature supports mental and physical wellbeing, as well as pro-sustainability empathy. There’s a need for more place responsive pedagogies can support engagement with nature. Human-nature relationships also link to respecting indigenous ontologies (ways of being and understanding existence).</p> <p><b>Outdoor learning as part of teaching methods:</b> Incorporating outdoor learning, such as field trips, provides tangible experiences that deepen understanding. Rehema's trip to Iona exemplified this approach, fostering reflection within the class.</p> <p><b>Cultural contexts:</b> Rehema mentions a piece of research on place-based cultural learning and the importance of the cultural context. LfS Scotland is a good example of this. As part of a field trip, students were able to much better understand the geographical context of Scotland, people’s connection and identity with the land and history, and how this has changed over time.</p>

	<p><b>More-than-human:</b> Expanding beyond anthropocentrism in sustainable development involves considering the rights of nature. Rehema's approach involves discussions on assemblage theory and biosecurity ethics, exploring human and tree rights. What rights do we have, what rights do the trees have, and how does that affect how we think about and manage them?</p> <p><b>A new competency?</b> There's a growing need for a competency focused on nature relations and rights, incorporating physical, emotional, and spiritual connections, as well as cultural and historical contexts. Rehema's ongoing work revolves around these discussions.</p> <p><b>Question from the audience:</b></p> <p><b>Lucy Patterson:</b> On an early slide you linked essays with critical learning etc. Are there any studies that link each competency with learning activities or qualities of learning approaches like this? (Just asking as easier to spot these in curriculum data than the competencies themselves a lot of the time).</p> <p><b>Rehema White:</b> We have done some work around how particular assessments can support particular competencies. You don't have to tackle every competency in every module, but look at the entirety of the programme. Particular assignments can help. For example, for systems thinking we have used mind mapping, for self-awareness we have used reflective essays, for collaborative we have used group work. So mapping of competencies against modules is possible. The competency survey can help with this as well.</p>
49:57	<p><b><u><a href="#">Developing a cross-institutional module based on the Inner Development Goals at West Lothian College</a></u></b>  <i>Valerie Jackman, Delivery and Engagement Partner, College Development Network</i></p> <p>Valerie provided insights into a collaborative module development approach based on the Inner Development Goals with a team at West Lothian College, Scotland.</p> <p><b>The Inner Development Goals:</b></p> <ul style="list-style-type: none"> <li>- If we really want change – we need to look at the external, but also the internal capacities we need to bring about change. A global survey identified five categories of inner capacities: Being, thinking, relating, collaborating, and acting. Each of these five overarching capacities are broken down into other capacities. These form the <a href="#">Inner Development Goals</a>.</li> <li>- There is recognition that the IDGs were developed mostly based on responses from people of the Global North, and the IDGs may shift and change. The current IDGs are the starting point.</li> </ul> <p><b>Module development and use at West Lothian College:</b></p> <ul style="list-style-type: none"> <li>- CDN co-hosted an event addressing the IDGs a few years ago, to which Sarah-Jane Linton came along. Based on this engagement, a team at WLC formed – Valerie is sharing the story on behalf of this team.</li> </ul>



- The team at WLC developed a unit called Change Sustain Attain – and they wanted this unit to be for all students at all levels, and potentially staff as well. The unit was linked to the vision at goals of the college, which includes having students at the centre, and leading with vision and empathy. They also looked at the [meta skills](#) framework by Skills Development Scotland and identified strong crossover with the IDGs and meta skills. They also drew on the Sustainable Development Goals, and linked the pursuit of personal growth to societal progress.
- The team within the college looked at assessment, which raised questions around to what extent inner growth and development can be measured in a one-size-fits-all approach. Instead – maybe the participants can measure it themselves. The team decided to co-create the module with the students and created videos about what the different capacities meant for individual students. They were also involved in developing some of the online platform.
- The module was first rolled out in AY 23/24 as a pilot. The uptake was higher than they had anticipated.

**How the module works:**

- Participants are able to go onto the online module and identify one or more skills to work on across their time in the college. This can include speaking to their tutors and identifying opportunities in the course they are undertaking, sitting with peers and discussing, etc. The online platform allows them to keep intermittent reflection, and at the end of the module they do a larger reflection on how they feel they have developed.
- This ability to reflect could have benefits for job interviews and students' ability of demonstrating growth.

**Future of the module and collaboration opportunities:**

- There will be more and deeper engagement with the SDGs in the next iteration of the module.
- There is also a connection of this working group of WLC staff and Valerie with international partners, for example a university in Ruanda. The module is not just local, but there are connections to broader spheres as well.
- The team at WLC is generally very happy to collaborate and share with other institutions.

**Question from the audience**

**Scott Strachan:** The UNESCO competencies, how would these intersect with the Inner Development Goals? How would these connect, rather than duplicate?

**Valerie Jackman:** It's not about competing and one framework being better than the other. There is no reason for our narrative to not be inclusive. It's about getting the work done and making those shifts happen. What attracts Valerie to them is the community behind the IDGs – the momentum this international community of educators provides is what drew Valerie in with this framework.

1:06:44

## Peer-to-peer conversations in breakout rooms

*All*

Participants were invited to join breakout rooms and engage with their peers. Two questions were suggested for participants to discuss, but participants were strongly encouraged to use the space in the way that they would find most useful, independent of the questions.

### **Outcomes from the discussions were summarised by facilitators in the main room:**

**Room 1:** University of Salford is undertaking consultation process on student competencies and asked how other institutions have done this. Discussion around starting with a blank slate versus introducing existing frameworks early on. The idea of having champions within the university was seen as equally important to integration in strategies and processes.

**Room 2:** Competencies – from the college side, it seems that there are various frameworks that require conversations, specifically around reporting. The discussion also centred around whether all institutions should follow the same framework, or whether it was more beneficial to leave flexibility for institutions in their approaches and practices. The importance of cross-national sharing and collaboration was also discussed, both for staff and students. For this, sharing openly before things.

**Room 3:** Mix of estates and learning and teaching staff – there are more links between these aspects within an institution, particularly regarding behaviour change. At the University of Swansea, there is a new curriculum framework and graduate attributes underway. In the context of this, it was discussed that self-assessment around sustainability can be an issue if people don't have deep enough understanding of it (e.g. it being about the interconnectedness of factors, rather than just the environment). The balance of providing the right guidance around sustainability (not too vague, but also not too detailed so it would become patronising) was discussed.

**Room 4:** Embedding ESD and related frameworks and getting traction for this – highlight the great work that exists already to show it's not an extra thing. It can also be useful to lean on accreditation bodies and their focus on sustainability (e.g. EAUC's work with PSRBs, QAA benchmark statements). Student demand is also a key factor. Regarding the measurement of competencies – should we assess this? Can we robustly assess this? Assess inner growth, when it's so contextual? And is there value in that assessment process in itself? Campus developments and institutional culture were also discussed as causing both synergies and tensions around ESD.

**Room 5:** Focussed on getting staff buy-in. Discussion included that more could be done around graduate attributes to make them more meaningful to staff and students. Cardiff University is using the graduate attributes as a way in to embed competencies and ESD in the curriculum. The link to employability was also discussed – the competencies essentially are employability competencies and

	<p>sometimes lack explicit link to sustainability. Another point was nervousness from staff around more competency-based teaching approaches due to less control over the teaching content and progress. There are, however, examples of off-the-shelf teaching approaches around sustainability, such as Climate Fresk and EN-ROADS, that can be a good entry point for staff to give them structure.</p>
<b>1:20:15</b>	<p><b>Conclusions, Thanks, and Close</b>  <i>Scott Strachan, University of Strathclyde</i></p> <p>Scott closed the session by thanking all speakers as well as participants for an interactive and engaged session. Links to resources were shared in the chat:</p>
--.--	<p><b>Next meeting:</b></p> <p>The next Education for Sustainability TSN will take in autumn 2024. If anyone has any suggestion for its agenda please <a href="#">contact us</a>.</p>

Minutes prepared by Kathrin Mobius, EAUC Scotland Sustainability in Learning and Teaching Project Officer