Student, staff and employer's perspectives on Education for Sustainable Development in UK HEIs 2021-2024

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Abstract: Education for Sustainable development (ESD) is becoming an integral part of the curricula in UK Higher Education Institutions (HEIs) . But what is the current perception of it in in these institutions? how well has it been integrated in to them? and what are the current challenges to effectively embed it in courses and institutions?

Building on a review of best approaches, this literature review summarises the perception of ESD delivery strategies in UK HEIs from the perspectives of students, educators and employers. We find students see it as content and are not necessarily transformed, interested staff are concerned there are barriers to making it skills focussed and some employers want HEI to take responsibility for it.

Unfortunately ESD is not fully embedded across HEIs so taking a Whole Institutional Approach might make it easier to do so.

A sustainable future means a change to education strategies now. But how are they viewed?

Education for Sustainable Development (ESD) in Higher Education seeks to create 'sustainability literate' graduates equipped with the knowledge, capability and drive to tackle the global successfully in their future workplaces. Going beyond teaching content about sustainability and environmental impacts (referred to as Environmental Education (EE), see Table 1) the *UNESCO ESD Goals: Learning Objectives* guide [1] outline ESD learning objectives that emphasise the need to integration of critical topics like climate change, poverty, and sustainable consumption (grouped in Figure 1 as the UNESCO Sustainable Development Goals) into curricula and advocating for learner-centred, interactive pedagogies that empower students. It thus necessitates a paradigm shift from traditional teaching methods and siloed disciplines to a holistic and transformational learning environment.

The graduate competencies, taken from UNESCO guidance, are set out in UK national HE policy [2]. To support UK HEIs the Quality Assurance Agency for Higher Education (QAA) in collaboration with Advance HE, crafted a document providing comprehensive guidance and resources on embedding ESD into educational frameworks [3]. Despite this support there are still a variety of curriculum frameworks being used to develop self-directed learning, interdisciplinary collaborative problem solving (and the other core competencies) across the UK.

Educators developing formal and informal learning experiences to activate sustainability literate graduates are providing literature to enable us to review student, staff, and employer perceptions of what is and is not working for them and draw out the challenges faced by UK HEIs so that they too can be truly sustainable.

Figure 1. Sustainable development goals as defined by the UN. [4] These interconnected challenges must be tackled to ensure a sustainable future for our society, economy and environment. Educational for Sustainable Development (ESD) seeks to inform and reform skills and values to enable individuals to take action to meet these goals.

Education for Sustainable Development (ESD)	vs	Environmental Education (EE)
Skills and values development Develops systems thinking and global perspective) Deep understanding of sustainability		Skills for positive environmental action [5] Often narrow focus content
Participatory, experiential and action-oriented learning practices needed [6]		Often limited to knowledge transfer
Curricular/co-curricular. Better if interdisciplinary		Specific modules or courses
Transformative: Enables leaners to act on SDGs		Potentially superficial [7]

Table 1. Comparison between Education for Sustainable Development (ESD) and Environmental Education (EE). ESD involves a holistic approach to acquiring both knowledge about interconnected global issues and the skills to be able to take action rather than focusing on content focused on environmental issues. It therefore requires more active learning strategies and interdisciplinary learning opportunities.

Building on previous review

AdvanceHE published an excellent, extensive literature review on ESD covering publications between 2015-2022 [8]. Its focus, *"the most advantageous approaches to ESD"* found mostly case studies of standalone courses [8].

Our focus is current stakeholder perceptions in UK with the view to identify what is needed to effectively embed the strategies in all UG curricula.

Methodology

Scopus Search Terms: "education for sustainability" AND "ESD" AND "education for sustainable development" AND "sustainability education" AND "student*" AND "learner*" AND "Higher education" AND "HE"AND "UK" AND "United Kingdom". Published between 2021 AND 2025   **Results n= 121**
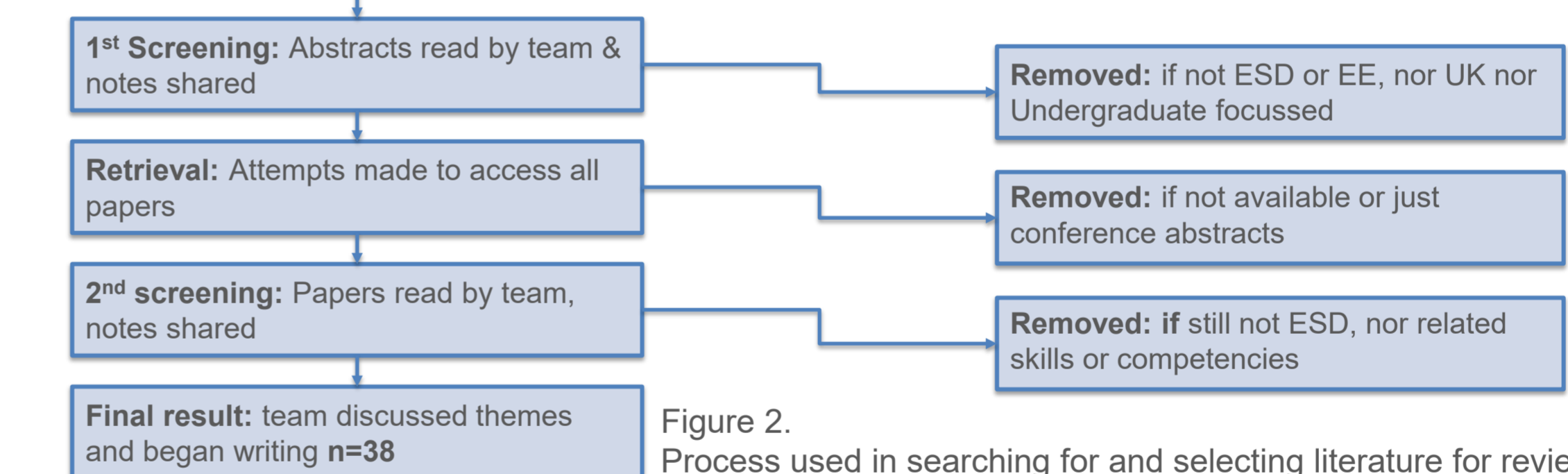
1st Screening: Abstracts read by team & notes shared → **Removed:** if not ESD or EE, nor UK nor Undergraduate focussed

Retrieval: Attempts made to access all papers → **Removed:** if not available or just conference abstracts

2nd screening: Papers read by team, notes shared → **Removed: if** still not ESD, nor related skills or competencies

Final result: team discussed themes and began writing **n=38**

Figure 2. Process used in searching for and selecting literature for review.

How is ESD perceived?

It depends…

Many students:
- think it is primarily knowledge acquisition. [9-10]
- are still in a discipline silo. [12]
- cannot transform their SDG knowledge into sustainability behaviours. [13]

Students Organising for Sustainability survey [11]

86% acquire sustainability knowledge

But only

50% report taking action

Students want more ESD:
- to be integrated into the curriculum. [10]
- to develop sustainability skills on their courses. [11]

HEI Educators (typically interested in ESD) **acknowledge:**
- concerns that HEI initiatives are content, not skills or competency focussed [14].
- some CPD for staff is available [9].
- the need for inclusive dialogue with students [14].

But there is a notable lack in front-line educator's perspectives [15].

Employers
- HE obliged to develop students' social and environmental skills according to 2/3 of respondents of a 2015 survey [16]
- *"sustainability and low carbon should be embedded into every curriculum as the fourth functional skill"* say Association for Employment and Learning Providers [17]
- Systems thinking is a new entry in *"the top ten [employability] skills on the rise"* [18]
- But… employers may have traditionally been more focused on attracting staff with specialist 'hard skills' because training staff in soft skills is easier than hard skills [19]

…but they all want it to be about skills.

How well is ESD currently integrated into HE?

Moving in the right direction…
Universities are recognised as transformative sustainability engines for the SDGs [20] yet it is still not embedded as a core across HE [21].

Variety in delivery mechanisms
- non-credit-bearing workshops open to all students [22]
- Student as Partners (SaP) for a curriculum review [14]
- Holistic, enquiry-based learning [23]
- continuous - students first engage with concepts personally and familiarly before advancing to more complex and abstract ideas [24]

Variety in discipline approaches
- Seen as well-placed in STEM [25] though engineering education needs a defined ontology [21]
- It's applied across disciplines [10, 14, 25-28]
- but still many business schools are not effectively addressing corporate social responsibility [13] or sustainability issues [27]

Worth noting that HEI already use the potential methods needed for ESD [8] e.g
- co-creating learning outcomes [14]
- active learning and authentic assessment [27]

What are the challenges to effective integration?

Siloed disciplines vs ESD best practice
The traditional approach of HEIs e.g. conservatism, rigid curriculum definitions, accreditation concerns, and institutional ambiguity [21] is unsuited to dealing with the interdisciplinary and emergent demands of sustainability [9]. **One of the recurring issues found is a certain level of confusion that exists in HEIs policies and visions, and therefore, amongst educators and students. [12,15, 21,27]**

Culture change
Needs a Whole Institution Approach to grow sustainable literacy (see Figure 3) in both students and educators [23,29-32]

Interdisciplinary collaboration (especially between science and humanities) [14,23]

HEI operations curriculum research governance community engagement

creativity interdisciplinary collaboration active learning ESD

Figure 3. ESD needs all areas of HEI operations to grow.

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