

CASE STUDY



Sulitest.org

Sustainability Literacy Tools & Community

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TECHNOLOGICAL
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In the 2020/21 academic year, more than 1750 students and staff took the Sulitest at the [Technological University Dublin](#).

The Sulitest team had a conversation with Dr. Cormac McMahon, Dr. Lucia Walsh and Dr. Olivia Freeman, faculty at TU Dublin, as well as Andy Maguire, Sustainability Co-ordinator at the university. TU Dublin has been an active and valuable member of the Sulitest community, and we wanted to hear their story of impact, using the Sulitest to advance sustainability literacy in Ireland.

Why is Education for Sustainable Development important to you and your institution?

Sustainability as a concept has been quite strong in some disciplines in the university for many years, particularly in sciences and engineering subjects where there is traditional awareness of environmental impacts. However, recently, TU Dublin has formulated a new strategic plan developed through the lens of the Sustainable Development Goals and is crafted around three pillars of People, Planet and Partnership.

TU Dublin is a new technological university established in 2019, our legacy institutions had unique cultures and specific programme offerings. During our first year as a University, we set about developing a new model of education designed to nurture bright minds with Education for Sustainable Development at its core.

The university leadership recognised that it has a strong mandate, particularly under SDG 4.7, for universities to develop sustainability literate graduates and embed sustainability in all programmes.

When and why did you start using Sulitest?

TU Dublin is running a project called [Transform EDU](#) to develop transformative learning opportunities for students, from the formal curriculum to extracurricular activities that add value to a student's employability skills. Sustainability was identified as a key work package for that project.

Sulitest was introduced at that point, when it was piloted with a group of engineering students and introduced to some staff in CPD (Continuing Professional Development) modules in the Learning, Teaching & Technology Centre at TU Dublin.

"I saw the [Sulitest] framework, and I thought it was a powerful tool – you get instant feedback, you can compare yourself to your nation's results and the population globally. In encouraging staff to get involved, two champions stepped forward, Olivia and Cormac and they work very well together," highlighted Andy Maguire.

How do you use Sulitest in your university?

Sulitest is used with undergraduate and postgraduate students, as well as with staff members.

At the moment, we are at an exploratory phase in terms of how the Sulitest might best fit into the university-wide strategy. Our work with the Sulitest tool to date has, for the most part, centred on incorporating Sulitest into existing assessment strategies. We explained to students that sustainability literacy is a continuum that involves knowledge, skills, and mindset. We asked them to do the Sulitest as a

self-awareness test and then to complete a reflection exercise guided by the DIEP framework (described in the appendix).

// This reflection piece allows students to deeply think about sustainable development, explore the issues and what they mean to them. //

There is a next step for many courses where students choose one specific issue to focus on in more depth. Authentic assignments include creating a video or poster, **connecting the new knowledge from the Sulitest experience to academic concepts**, in which they explain the issue and make recommendations for practitioners. For instance, in the postgraduate Strategic Marketing module, students chose issues around circular design, sustainable packaging or gender equality and related these issues to strategic marketing. They connected the SDG-related issue to specific marketing literature and made actionable recommendations for practitioners. They posted their short videos on LinkedIn to create engagement and impact. It is a powerful experience, a lot of learning comes from reflection.

The TU Dublin team highlighted having Sulitest as part of the assessment is particularly important. There is no pressure on how well the students perform in the Sulitest; students are graded on the reflection and other follow-up assignments after the Sulitest is completed. Nonetheless, because it is graded at one point, students engage better. It signals that this is important, so they get serious and recognise it as a valuable education activity.

What was the impact of introducing Sulitest in your university?

CHANGING MINDSET, PROMOTING ACTION

Certain disciplines have certain strengths. For example, many engineering students are good at things like energy efficiency and material design. Yet, there are broader aspects to sustainability that they have never studied. Similarly, business students are aware of some sustainability issues connected to the environment but they do not realise how much more there is and how it all relates to business practice. After completing the Sulitest, students have an affirmation of what they know and an indication of what they have yet to learn. Having a general understanding of the overall framework of sustainability is important. The Sulitest is particularly useful in conveying that message to students and staff in the various disciplines.

“In the reflection, students say that before taking the Sulitest, they thought about sustainability in much narrower terms. After completing the test, there is a range of reactions, from being shocked, surprised, feeling privileged, and different emotions. **The Sulitest opened their minds and allowed students to explore the extra resources that candidates get after each question.**

Part of the reflection was to consider what impact this new knowledge will have on the student’s personal, academic, and future professional life. Many students said it made them reconsider purchase choices. It encouraged them to talk to family about specific issues that resonated with them... In one of the groups, I did a quick poll in an online class one month later to ask,

“‘have you changed any aspects of your lives due to this assignment?’

78% of students said yes.”

It was amazing to see the impact that it had, not just to complete the assignment, but also on their personal and college lives,” said Lucia Walsh.

I believe the mindset piece is especially important for business students. Issues around forced labour, child labour, inequalities surprises, and shocks the students. But that is the breath of the SDGs, it is not just about the environment. The Sulitest was great for opening these discussions.

‘Would you say that, even though the test focuses on knowledge, there is an impact on mindset about sustainability as a by-product and consequence from the knowledge-focused questions?’, asked the Sulitest team.

“Definitely. It triggers conversations about mindset. We are finding in the reflections that we have students writing things like ‘this has made me think about where I want to ‘work’, they mention B corporations and what that means. That is really encouraging for us because when students start driving the movement, talking about ways they want to make a difference in an organisation, it becomes really powerful and much more meaningful, added Dr. Olivia Freeman

How did you introduce the Sulitest to your faculty and staff?

PROMOTING ORGANISATION CHANGE

TU Dublin's Learning, Teaching and Technology Centre offers masters programmes in education and a CPD (Continuing Professional Development) programme where staff can take different modules over time.

Sulitest is used as an opportunity to introduce those staff members to ESD (Education for Sustainable Development) and to get them to think about how they might alter their curriculum in the future. Staff would undertake the Sulitest in a similar type of reflective exercise described previously. Then, they examine their course descriptors and consider how they might amend those course descriptions to include aspects of sustainability. It has a magnifying effect because then faculty assimilate this new knowledge into their teaching, and some start using the Sulitest with their students.

Community of Practice - SDGLiteracy.ie

Sustainability has been presented as one of those big cross-disciplinary pieces of knowledge. There have always been debates as to, 'should the knowledge be embedded into the actual

existing 'courses' or 'should there be new programmes around sustainability.'

“ The Sulitest has become an enabler to embed sustainability into pretty much any discipline or programme of study across the university, in a robust way with the reflection-based assessments,

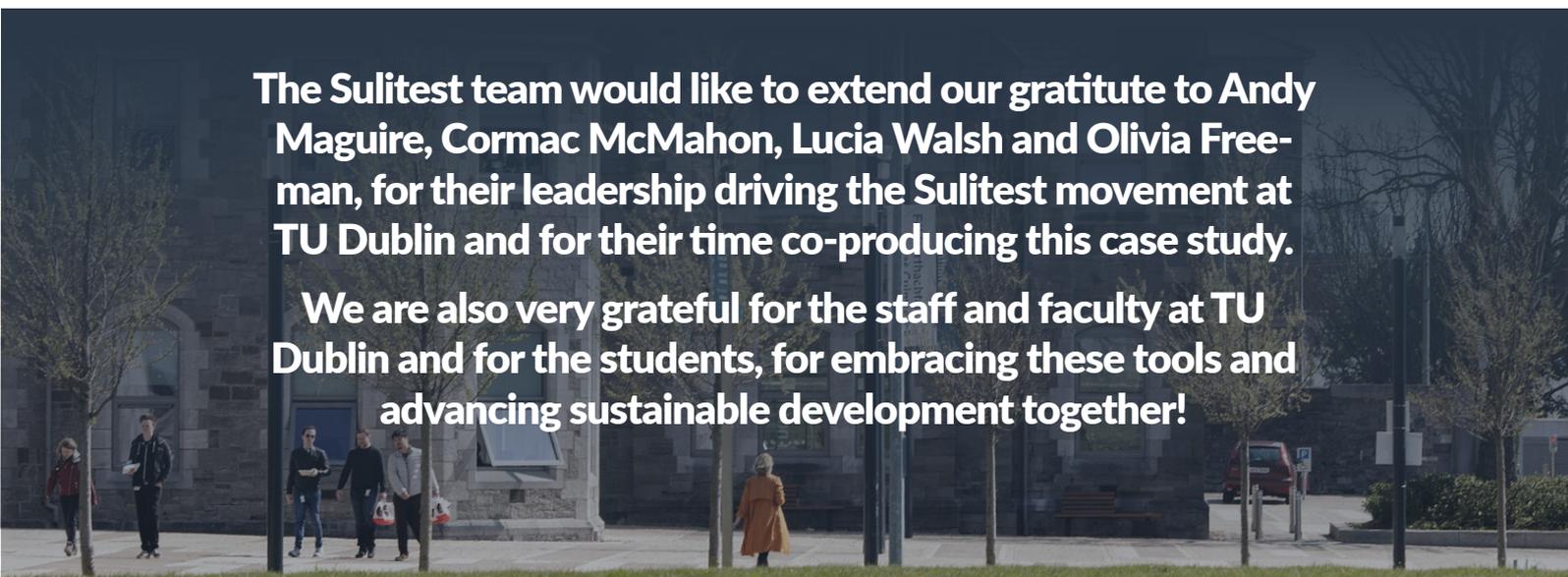
stated Dr. Cormac McMahon.

By sparking the conversation around ESD, we got a great mix of staff from various disciplines who have formed a 'community of practice'. [SDGLiteracy.ie](https://www.sdgliteracy.ie) emerged from this movement and gained support from 'Ireland's National Forum for the Enhancement of Teaching and Learning in Higher Education.

I don't think the project that is SDGLiteracy.ie, as it currently is going to remain static, I think it will evolve considerably over the next five years or so, primarily driven by the University strategy and to push forward new education models. It has brought together people from different parts of the organisation, different disciplines, different campus locations, different expertise.

The Sulitest team would like to extend our gratitude to Andy Maguire, Cormac McMahon, Lucia Walsh and Olivia Freeman, for their leadership driving the Sulitest movement at TU Dublin and for their time co-producing this case study.

We are also very grateful for the staff and faculty at TU Dublin and for the students, for embracing these tools and advancing sustainable development together!



Appendix - Advice for academics

Authentic Assessments

TU Dublin proposed activities that are authentic assessments, designing real-world tasks to demonstrate the application of knowledge and skills. Ashford-Rowe et al. (2014) suggest that for an assessment to qualify as authentic, it should be challenging, include a crafted outcome, foster the development of transferable knowledge, allow for self-reflection, simulate, and measure real-world test of ability, and have formally designed opportunities for feedback and opportunities to collaborate.

DIEP Framework for Reflection

Describe objectively what happened - Answer the question 'What did I learn?' Students can start the sentences with:

- The most interesting (surprising/ important/ significant/ ...) (insight/ theory/ thing ...) I read (saw/ heard/ realised/ learned...) is that ...
- One thing I realise (understand ...) now is that ...
- A significant issue I have not considered before is ...

Interpret the insights - Answer the questions 'What might it mean?' 'How might this affect other perceptions, concepts, etc.?' Students can start the sentences with:

- This realisation may have important relevance for X reasons. First, it implies ...
- A possible implication/meaning of this new idea/understanding is that ...

Evaluate what you have learned – Answer the question: 'How is this useful for my deeper understanding of the topic?' Students can start the sentences with:

- This concept of ... is valuable for .../ will change the way I approach ...
- This understanding is important in several ways. First it ...
- This insight relates to (theoretical approaches to .../ theories/ concepts/
- Having realised that ..., I wonder if .../ I intend to develop ...

Plan how this learning will be applied in practice - Answer the question: 'How might this learning apply in my future (course, programme, future profession, personal life?'" Use future tense in this section to show transfer of knowledge to the future. Students can start the sentences with:

- This (new insight) will be useful in this course, in the (bachelor) degree, in my future career as a ..., and in my life.
- In this course, (understanding ...) could ...
- In my career, (understanding ...) could ...

Adapted from Boud, Keogh & Walker, 1985, Reflection: Turning Experience into Learning

Assignment Example: Strategic Marketing Course

Step 1 – Sulitest completion

Students answered to the Core Module of the Sulitest Learning Mode. This step is not graded – instead, it focuses on self-awareness and cultivating curiosity.

Step 2 - Individual reflection on learning document

Students were prompted to write a 1,500 words document, focused on reflecting on the 'student's own learning journey organised around DIEP reflective writing framework.

Step 3 – Make a video for marketing managers & share it to create change

Students were prompted to choose one or more issues related to sustainable development (new knowledge discovered through Sulitest) and create a poster or video, connecting it to the course. – answering to “””what is that one issue that marketing managers should be aware of and what actions could they take to address it””?”

Example: a student decides to focus on unequal gender representation in marketing communications in the tech industry, searches for information on this issue in peer-reviewed academic sources to inform the creation of a video. The video will focus on outlining the key issues, statistics and facts and making recommendations on actions to take. The video will then be shared on LinkedIn and Twitter and create engagement.

To see the post and videos created by TU Dublin students, click on the links below:

- Post 1: [SDG 12 & Supply Chain Management in the Food and Beverage Industry](#)
- Post 2: [SDG 13 – Climate Change & Construction Supply Chains](#)
- Post 3: [SDG 12 and the Fashion Industry](#)
- Post 4: [SDG 12 & Supply Chains of the Semiconductor Industry](#)