

Guide to ESD in practice

Developing reasoning, resilience and responsibility competencies through a waste sort and packaging redesign

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Contents

1.	Intended outcomes	4
2.	Participants	4
3.	Activity/project	4
4.	Assessment or evaluation	8
5.	Useful resources	11
6.	Example of practice	11

1. Intended outcomes

Intended outcomes of this activity are for students to:

1. Use real-life experience to understand and solve real-world problems
2. Build reasoning, resilience and responsibility competencies
3. Develop sustainability knowledge and influence lifestyles to meet SDG4, Target 4.7 by 2030

This activity is designed for Business School students and can fit with subjects including circular economy, product and packaging design, consumer behaviour, retail, supply chain, CSR, for example.

2. Participants

Each student participant will engage in three rounds of activity and discussion. Between round two and three there is theory/practice input. The design allows for individual or group activity, with small or large groups.

Adequate space and resources are needed for participants to move from their seats for the first activity and this will determine group size.

3. Activity/project

Length of session

1.5 hours

Preparation

Two bags of equally matched waste (clean!)

Non-latex gloves and/or litter pickers

Guidelines for sorting waste ie (a) Barrow-in-Furness and (b) St Albans council household waste collection

Session outline

	Indicative timing
Introduction	5 mins
Activity 1 - Waste sort	10 mins
Discussion 1	10 mins
Activity 2 – Recycling rates	10 mins
Discussion 2	10 mins
Input – Theory and/or practice	15 mins
Activity 3 Redesign packaging	10 mins
Discussion 3 - Review of designs	15 mins
Plenary and/or Signposting	5 mins

Total time:	90 mins
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Activity 1

Waste sort - Focuses on responsibility competence – knowledge for a common good

Action (using prepped materials detailed above)

- + Split students into two groups
- + Each group follows one of the allocated guidelines to sort their waste
- + Both groups swap to review the other pile of waste and note the differences

Discussion 1

Focuses on reasoning competence – problem solving

General discussion of experience and findings.

- + Why are the piles of waste different?
- + What were the issues with sorting?
- + Was any waste mis-sorted?
- + What are the wider implications?
- + What problems do you see?

Activity 2

Recycling rates – Focuses on reasoning competence – analytical

- + Study and interpret the data ready to discuss
- + Depending on the session, this data could be in these forms:
 - Data light (suitable for students less familiar with stats)
- + Annual Recycling League Table for England from LetsRecycle
 - Data heavy (suitable for students familiar with stats)
- + Waste and recycling statistics from UK Gov

Discussion 2

Focuses on resilience competence – flexibility, adaptability and self-reliance

(Example suggestions are available for each point – see resources below)

- + What issues could be related to different council waste systems?
- + What could be the reasons for high and low recycling rates?
- + Whose problem is recycling?

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- + What are potential recycling issues at your local council?
- + How adaptable are we?
- + What if I recycle but my neighbours don't bother?
- + Why should I do anything about this?
- + What can 'I' do about this?

Session input

Focuses on responsibility competence – knowledge for a common good. Building knowledge – theory and practice options.

(Example suggestions are available for each point – please contact the author)

- + Circular economy
- + Business waste collection (differences to household waste collection)
- + Regulation/legislation
- + Marketing and design

Activity 3

Focuses on reasoning, resilience and responsibility competences.

For the product packaging provided

- + How can circular economy principles help you?
- + How would you redesign out the waste?
- + What are you going to reduce, reuse or recycle?
- + Could you change packaging materials?
- + Could you have packaging returned to the business for reuse?

Discussion 3

Focus on reasoning, resilience and responsibility competences.

Presentations to the rest of the room

- + What were you redesigning?
 - + What was the sustainability issue that you are trying to solve?
 - + What is the solution you have created and why?
 - + What are the benefits (reduced costs, reputation, less waste....)
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Plenary and/or signposting

Below are a range of ideas that could be built into the closing of the session with examples:

- + Assessments/modules/programmes
 - Links to Sustainable Development Goals across the programme
 - Links to theory/concepts – CSR, TBL, circular economy
 - Links to specified assessments or personal development and reflection
- + Behavioural change
 - Reduction in eco-anxiety, as students now have additional skills/knowledge to use
 - Increase in environmental and social awareness informing personal decisions
- + Agency
 - Helping students appreciate they can question what they see
 - Helping students appreciate they can take action – they have knowledge and skills
- + Careers
 - For CVs - demonstrates reasoning, resilience and responsibility competences
 - For CVs - demonstrates problem solving and analytical skills
 - Can provide ideas for green careers or link through to green careers fair
- + Institution or community action
 - Join students' union clubs and societies on sustainability
 - Join community action groups (ie Plastic Free Communities)
- + Volunteering
 - Join a litter pick in the local community
 - Sign up to volunteering opportunities through the university
- + Carbon Literacy Training
 - Become carbon literate by joining one of the free PRME online courses
 - Attend one of the carbon literacy courses run by SoS (Students Organising for Sustainability)
- + PRME Global Students
 - Join students from business schools across the world
- + [WRAP](#)
 - Follow WRAP on LinkedIn

4. Assessment or evaluation

The activities and discussion within the session will determine if the outcomes have been achieved (or can be, in the case of lifestyle changes).

Outcomes can be assessed as follows:

Activity 1 - Waste sort *Observation of group*

- + Interaction with waste
- + Discussion within group (cleanliness, plastics, Tetra Pak, landfill or recycling...)

Discussion 1 - Waste sort *Feedback from group*

- + Identified issues, challenges, confusion, blame (the system, others...), lack of personal responsibility, apathy, “what’s the point...”.

Activity 2 – Recycling rates *Observation and student self-assessment*

- + Circulating the room and speaking with students
- + Padlet, Vevox or other software to curate student comments/thoughts

Discussion 2 - Feedback from group

- + Padlet, Vevox or other software review
- + Open discussion

Activity 3 - Redesign packaging *Observation*

- + Circulating the room and speaking with students during the redesign

Discussion 3 - Review of designs *Observation*

- + Reviewing the redesigns and hearing justifications from students
- + Photo of redesign concept to Padlet or other software for all groups

Following session delivery, anecdotal evidence is also important in determining if there have been changes in behaviour and lifestyles. This appears to be more genuine and reliable as biases and impression management are often evident in front of peers.

Overall, the activity aims to support SDG Target 4.7: “By 2030, ensure that all learners acquire the knowledge and skills needed to promote sustainable development, including, among others, through education for sustainable development and sustainable lifestyles, human rights, gender equality, promotion of a culture of peace and non-violence, global citizenship and appreciation of cultural diversity and of culture’s contribution to sustainable development.”

Subject Benchmark Statement: Business and Management

Paragraph 1.25 - There is an expectation by some accrediting bodies that ethics, responsibility and sustainability (ERS) are integrated into the curriculum within Business Schools.

Paragraph 1.26 - sustainable supply chain management (including reducing waste, working conditions and effective distribution of resources)

Paragraph 2.4 - Positive impact on the widest variety of stakeholders is built into courses by developing an all-encompassing approach to responsible management practice, which includes championing and proactively addressing the climate change agenda, pursuing social, environmental and business sustainability, fostering responsible innovation and promoting inclusivity

Paragraph 3.4 - The business environment...can be seen in the context of the strategy, behaviour, management and sustainability of organisations.

Paragraph 3.7 - graduates should reasonably be expected to be able to demonstrate knowledge, understanding and critical evaluation in the following areas: ethics, responsibility and sustainability: managing responsibly and behaving ethically, particularly in relation to social, cultural, legal, economic and environmental issues

Examples for Discussion 2

What issues could be related to different council waste systems?

- + Example: confusion with householders. This is particularly an issue for student and staff mobility (national and international).
- + Example: lack of householder buy-in. Not all councils are as strict, so why do we have to do it this way?
- + Example: fly-tipping or filling other householder's bins with your own waste.

What could be the reasons for high and low recycling rates?

- + Example: raises issues around poverty and deprivation. For example, living day-to-day, why would you worry about recycling?
- + Example: lack of awareness of recycling criteria. For example, possibly due to poor council signposting?
- + Example: lack of recycling opportunities. For example, only a limited quantity of waste can be recycled according to council rules.

Whose problem is recycling?

- + Example: government, manufacturers, retailers, waste businesses...
- + Example: bystander effect
- + Example: 'us'

What issues do you have with your own recycling at home?

- + Example: others (students, family, friends) don't recycle
- + Example: recycling put in wrong bins
- + Example: adding non-accepted recycling or non-recyclables to the recycling bins, in the hope it will be dealt with

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- + Example: others assume contaminated waste is sorted

What are potential recycling issues at your local council?

- + Example: local council sends everything to incineration
- + Example: local council sends contaminated recycling to landfill
- + Example: local council charges households for incorrect recycling
- + Example: local council does not distinguish between tenants in shared properties

How adaptable are we?

- + Example: why should we change?
- + Example: the system should change, so we don't have to change
- + Example: I care about the environment, so will change
- + Example: it always costs more to change

What if I recycle but my neighbours don't bother?

- + Example: talk to the neighbours, perhaps?
- + Example: need to avoid neighbourhood disputes!

Why should I do anything about this?

- + Example: our environment
- + Example: health and wellbeing

What can 'I' do about this?

- + Example: get involved – plogging or litter pick
- + Example: get involved – become a local councillor
- + Example: get involved – get a green/sustainability career
- + Example: get involved – join an organised community such as Plastic Free Communities

Examples for session input also available (please contact the author).

5. Useful resources

[Data light – Annual Recycling League Table for England from LetsRecycle](#)

[Data heavy – Waste and recycling statistics from UK Gov](#)

[WRAP](#)

[Allplants packaging](#)

[Oddbox packaging](#)

[Parla toothpaste packaging](#)

Joint Research Centre (European Commission) (2022) *GreenComp, the European sustainability competence framework*. Luxembourg: Publications Office of the European Union. Available at: data.europa.eu/doi/10.2760/13286

Joyes, C, Rossignoli, S and Fenyiwa Amonoo-Kuofi, E (2019) *21st century skills: evidence of issues in definition, demand and delivery for development contexts (K4D Helpdesk Report)*. Brighton, UK: Institute of Development Studies. Available at: assets.publishing.service.gov.uk/media/5d71187ce5274a097c07b985/21st_century.pdf

Sternberg, R J and Subotnik, R F (eds) (2006) *Optimizing student success in school with the other three Rs: reasoning, resilience, and responsibility*. Charlotte, NC: IAP.

Tight, M (2021) 'Twenty-first century skills: meaning, usage and value', *European Journal of Higher Education*, 11 (2): 160-174. Available at: doi.org/10.1080/21568235.2020.1835517

6. Example of practice

In my previous institution, I used this activity with new PGR students and used cut-down versions within an undergraduate sustainability-focused tourism module.

In my new institution and with colleagues, I am currently planning delivery of this activity within the curriculum and possibly the wider university, in 2023-24.

Learning point 1: you do not have to be a waste expert to deliver the session

Learning point 2: you could work with your Estates and Facilities team to gain understanding of the commercial business waste contract they have and the differences between on-site (student halls/university buildings) waste management requirements and those of the local council collecting from local residences.



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