Embracing complexity in sustainability: Critical Thinking

1. Description of the competence

Recommended resources:

Presentation of the competence model

Description:

The competence area Embracing complexity in sustainability is about: empowering learners with systemic and critical thinking, and encouraging them to reflect on how to better assess information and challenge unsustainability, scanning systems by identifying interconnections and feedback framing challenges as sustainability problems which helps us learn about the scale of a situation while identifying everyone involved. Technological change, digitalisation, and globalisation have increased our society's complexity and accelerated socio ecological problems such as climate change and loss of biodiversity. Critical thinking competence is especially important because it helps people distinguish between genuine sustainable practices and misleading claims (such as greenwashing) by evaluating evidence, questioning assumptions, and considering multiple perspectives.

2. Workshop components

Duration: 135 minutes

Digital tools suggested:

- Mentimeter: For interactive polls and icebreakers
- Padlet: For collaborative brainstorming and scenario building. Also useful for ice breakers or energizers
- Canva: For creating visual representations

Competencies exercised:

Individual initiative, Critical thinking, Problem framing, Futures literacy, Adaptability

3. Workshop overview

Annotation:

This workshop on critical thinking for sustainability is designed to equip participants with the skills to evaluate sustainability claims, recognize greenwashing, and apply critical thinking in decision-making related to sustainability. By using interactive tools like Mentimeter, Padlet, and Canva, participants will engage in discussions, analyze real-world sustainability claims, and participate in debates around controversial sustainability topics. Through practical exercises and collaborative group work, the workshop aims to enhance participants' ability to question assumptions, evaluate evidence, and make well-informed decisions that promote genuine sustainability.

Objectives:

- Define critical thinking and its importance for sustainability, particularly in analyzing sustainability claims.
- Identify key characteristics of critical thinking, including questioning assumptions, evaluating evidence, recognizing biases, and considering multiple perspectives.
- Evaluate sustainability claims by identifying whether they are legitimate or examples of greenwashing.
- Develop skills for analyzing sustainability practices, using tools like Padlet and Canva, to discern valid environmental practices from misleading claims.
- Engage in critical discussions and debates on controversial sustainability topics, such as fast fashion and plant-based diets, while applying evidence-based reasoning.
- Create visual action plans that incorporate critical thinking strategies into daily sustainability choices, ensuring informed decisions and responsible consumption habits.

Digital tools suggested:
None

4.Detailed session structure

Evocation (15 minutes):

Tools:

Mentimeter

Activities:

- Question to ask (5 minutes): Using Mentimeter, poll: What words come to mind when you hear sustainability? (use 3-5 words in Mentimeter word cloud)
- Discussion (10 minutes): Encourage different viewpoints, pick a word that stands out and challenge it. Example: Is recycling always sustainable?

Resources:

Video **tutorial on how to use Mentimeter**

Understanding (90 minutes):

Tools:

Padlet, Mentimeter, Canva

Activities:

1. What is Critical Thinking? (20 min)

- Discussion: Define critical thinking and why it matters for sustainability. *(Critical thinking is the ability to analyze and evaluate information or arguments to make reasoned, logical, and well-informed decisions.)*
- Key Characteristics of Critical Thinking:
  Questioning assumptions (Is a claim about sustainability true?)
  Evaluating evidence (What data supports this?)
  Recognizing biases (Who benefits from this claim?)
  Considering multiple perspectives (Is this solution sustainable for everyone?)
- Explain how misinformation and greenwashing affect sustainability decisions.
  [Greenwashing: When companies mislead consumers into believing their products are more sustainable than they actually are. Misinformation: False or misleading claims about environmental issues (e.g., exaggerated carbon offsetting claims).]
- Quick Discussion:
- Ask: *"Have you ever seen a company claim to be sustainable but later found out it wasn't?, What was your reaction?"*
- Encourage participants to share examples (e.g., fast fashion brands promoting "sustainable" collections).
- Mini-Activity:

- Display examples of sustainability claims (like "biodegradable plastic" or "carbon neutral") and ask: *"Do you think this is genuinely sustainable? What makes you think so or not?"*
- Show 3–5 sustainability claims on the screen (real or hypothetical).
- Examples: *"Our coffee is 100% ethical and sustainable.", "This t-shirt is made of recycled ocean plastic.", "Switching to electric cars will solve the climate crisis.", "This product is carbon neutral.", "Paper bags are always better than plastic bags.".*
- Ask participants to think critically: *What questions should we ask to verify this claim?, What evidence would make this claim more credible?, Could this be misleading or missing key information?*
- Group Discussion: Break participants into small groups (or use a digital board like Padlet). Each group picks one claim, analyzes it, and presents their reasoning. Encourage debate on different perspectives.

2. Case Study Challenge: Sustainable or Greenwashing? (40 min)
- Participants work in small groups to analyze sustainability claims from companies (e.g., fashion, food, energy).
- They post their findings on Padlet, categorizing claims as genuine sustainability or greenwashing, with justifications.
- Debrief: Groups present their findings, discussing critical questions like: *What evidence supports this claim? What biases might exist?*

3. Interactive Debate: Solve a Sustainability Dilemma (30 min)
- Present a controversial sustainability challenge, e.g.: *"Should fast fashion be banned?" "Should governments subsidize plant-based diets?"*
- Participants split into for and against teams, research arguments, and debate. And then create quick infographics for arguments in Canva.

Resources:
None.

Reflection (30 minutes):

Tools:

[Canva](#)

[Mentimeter](#)

Activities:

- Each participant creates a visual action plan for applying critical thinking in daily sustainability choices (e.g., how they will fact-check sustainability claims, avoid greenwashing, or engage in sustainable behaviors).They present their action plan briefly.
- Participants answer, creating Mentimeter cloud: *What was your biggest takeaway? How confident are you in using critical thinking for sustainability?*

Resources:

None.

5.Resources used and additional info

Links:

Suggested Reading: **[GreenComp Framework,](#)**

Video **[tutorial on how to use Canva](#)**

Toolkit: [Digital Tools Guidebook](#)