# Enacting Education for Sustainable Development (ESD) in Trinity:

## Exploring Worldviews, Perceptions and Values on Sustainable Development

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# Background to the Module: Enacting ESD in Trinity

Trinity's '*Enacting Education for Sustainable Development in Trinity*' Module, collaboratively developed by six Academic interdisciplinary Trinity Fellows in ESD and four student ESD interns, is structured around five integrated cross disciplinary themes as follows:

1. Exploring a sustainable existence.

2. Systems complexity and future forecasting in sustainability.

3. Exploring worldviews, perceptions, and values on sustainable development.

4. Problem framing in sustainability: prevention, mitigation, and adaptation.

5. Misinformation related to sustainable development.

Curriculum for Enacting ESD in Trinity is grounded in UNESCO preferred pedagogies (learner-centred approach, action-oriented learning and fostering transformative learning (UNESCO, 2017:55), and learning outcomes therein target UNESCO competencies (UNESCO, 2017:10) for sustainable development.

Curriculum for 'Enacting ESD in Trinity' is structured around five themes, referred to as Blocks, each of which includes 2 hours of lectorials developed by ESD Fellows, and one two-hour interactive workshop. Each theme is aligned with at least two of the 'shortfall' dimensions in Raworth's (2014) doughnut economics. Scenarios and templates as were co-designed by Fellows and Interns, including artifacts for use during workshops, are available separately. Recommended teaching practice(s) for workshops, as aligned with UNESCO preferred pedagogies, were also included in curriculum for staff undertaking this module.

This Resource Guide aligns with the lectorials for the Block titled: Exploring worldviews, perceptions, and values on sustainable development. Five short videos provide key content related to the theme and this resource guide provides context and suggestions for integrating these videos to teaching practice that is learner-centred and action-oriented, and integrates to curriculum to foster transformative learning (UNESCO, 2017:55).

## Core references

- UNESCO (2017). Education for Sustainable Development Goals Learning Objectives.

- Raworth, Kate.
    - Doughnut economics: Seven ways to think like a 21stCentury economist. Penguin Random House. (2014).
    - TedTalk : A healthy economy should be designed to thrive, not grow. (2018).
    - Doughnut Economics Action Lab

## Background: Exploring worldviews, perceptions and values on sustainable development

This theme explores worldviews, beliefs, values and some biases that typically frame judgements. Questions posed prompt reflection on how our worldview is likely to impact on our approach to sustainable development. Impacts of colonialism and capitalism on global equity and climate justice are considered using examples such as the DRC (the Congo). Decision-making frameworks that support reasoning through related dilemmas in an ethically defensible manner are outlined and reviewed.

Raworth's shortfall dimensions Gender Equality and Social Equity are aligned with the theme of Exploring worldviews, perceptions and values on sustainable development.

### Video Resources for this Block are presented in five parts as follows:

- Part 1: Worldviews: How do you see the world? Why does it matter?
- Part 2: Beliefs, attitudes and values: Exploring their impact on worldviews and behaviour.
- Part 3: Colonialism and capitalism impacts on climate justice: History of the DRC in focus.
- Part 4: Power, privilege and social justice: Inequality and climate produce worse outcomes.
- Part 5: Principles of climate justice: A Framework for addressing inequality and climate justice.

### Recommended reading to support educators using the video resources in their teaching practice:

- **Part 1 & 2:** Worldviews and their significance for the Global Sustainable Development Debate Annick Hedlund-de Witt (2013) explores the crucial role of worldviews in shaping our understanding and approach to sustainability. Hedlund-de-Witt argues that worldviews are an over-arching system of meaning-making that influences how we interpret, enact and co-create reality, including our relationship with the environment.

- **Part 3 & 4:** Farhana Sultana's 'Decolonising planetary justice in the Anthropocene' (2023)

  Sultana's examination of the geopolitics of planetary environmental injustices and the imperative for systems change to address the intertwined crises of climate breakdown and unsustainable economic growth raises crucial questions of equity and justice. Sultana advocates colonial-capitalist ideologies and practices be dismantled as a matter of urgency.

- **Part 5:** UNESCO Declaration of Ethical Principles in relation to Climate Change (2017).

  UNESCO proposes ethical principles of decision-making, policy formulation, and other actions related to climate change as should underpin actions taken locally, nationally and globally to include: prevention of harm, a precautionary approach, Equity and Justice, sustainable Development, Solidarity, and Scientific knowledge and Integrity in Decision-making.

- **Part 3: Eco-anxiety: introduction to the roles, functions and management of eco-emotions.** *In addition to explaining the term 'climate-anxiety', this video also explores the use of the climate emotions' wheel and provides practical advice on how to 'activate one's own agency and power to work for justice and societal transformation'.*

# UNESCO ESD Preferred Pedagogical Approaches (UNESCO, 2017:55)

| UNESCO recommends | UNESCO (2017:55) Description | Examples of Learning theories* Teaching practices aligned with UN Preferred (Millwood, 2021:v7) |
|---|---|---|
| **Learner-centered approach (LCA)** | *"Learner-centred pedagogy sees students as autonomous learners and emphasizes the active development of knowledge rather than its mere transfer and/or passive learning experiences. The learners' prior knowledge as well as their experiences in the social context are the starting points for stimulating learning processes in which the learners construct their own knowledge base. Learner centred approaches require learners to reflect on their own knowledge and learning processes in order to manage and monitor them. Educators should stimulate and support those reflections. Learner-centred approaches change the role of an educator to one of being a facilitator of learning processes (instead of being an expert who only transfers structured knowledge) (Barth, 2015)."* | **Learning Theories - examples**: <br> 1. Discovery learning <br> 2. Individual Constructivism <br> 3. Mastery learning <br> 4. Instructivism <br><br> **Teaching practices – examples**: <br> 1. Guided Reflection/prompts (Gibbs, 1998) <br> 2. Force choosing through ambiguity e.g. ranking options (Roche et al, 2017); comparison processes (Nicol, 2020). <br> 3. Classroom assessment techniques (CATs) (Angelo & Cross, 1993). <br> 4. Teacher transfers knowledge directly. |
| **Action-oriented learning (AOL)** | *In action-oriented learning, learners engage in action and reflect on their experiences in terms of the intended learning process and personal development. The experience might come from a project (in-service learning), an internship, the facilitation of a workshop, the implementation of a campaign, etc. Action-learning refers to Kolb's theory of the experiential learning cycle with the following stages: 1. Having a concrete experience, 2. Observing and reflecting, 3. Forming abstract concepts for generalization and 4. Applying them in new situations (Kolb, 1984). Action-learning increases knowledge acquisition, competency development and values clarification by linking abstract concepts to personal experience and the learner's life. The role of the educator is to create a learning environment that prompts learners' experiences and reflexive thought processes."* | **Learning Theories - examples**: <br> 1. Social constructivism: (Ideally sequence peer interaction and debate after individual constructivism). <br> 2. Experiential learning <br> 3. Situated learning <br> 4. Communities of practice <br><br> **Teaching practices – examples**: <br> 1. Rank less-than-ideal options individually, then require the small group to agree ranking of options. <br> 2. Role-play/debate assigned perspectives <br> 3. Problem framing 'real-world' issues. <br> 4. Solutions focussed- from local to global: groups problem solve collaboratively. |
| **(Fostering) Transformative learning (FTL)** <br><br> *Learning theories that foster transformative learning are proposed.* | *"Transformative learning can best be defined by its aims and principles, rather than by any concrete teaching or learning strategy. It aims at empowering learners to question and change the ways they see and think about the world in order to deepen their understanding of it (Slavich and Zimbardo, 2012; Mezirow, 2000). The educator is a facilitator who empowers and challenges learners to alter their worldviews. The related concept of transgressive learning (Lotz-Sisitka et al., 2015) goes one step further: It underlines that learning in ESD has to overcome the status quo and prepare the learner for disruptive thinking and the co-creation of new knowledge."* | **Learning Theories - examples**: <br> 1. Critical pedagogy <br> 2. Double-loop learning <br> 3. Conversation theory <br> 4. Connectivism <br><br> **Teaching practices – examples**: <br> 1. Connect knowledge to power/action. <br> 2. Modify goals based on experience. <br> 3. Co-construct knowledge through dialogue – learning as a social process. <br> 4. Constructing and traversing networks. |

# Guidance for Educators using this resource for teaching [Part 1&2of 5]

**(1)  Worldviews: How do you see the world? Why does it matter?**

**(2)  Beliefs, attitudes and values: Exploring their impact on worldviews and behaviour.**

| Slide Title (time) | Teaching Practice(s): options for: IP: in-person/in classroom teaching SO:  synchronous online teaching | UNESCO pedagogical approaches* LCA: Learner-centred approach AOL: Action-Oriented Learning FTL: (Fostering) Transformative Learning |
|---|---|---|
| **Video Part 1: (5:02)** | Prompt question: *What is a worldview?* Prompt learners to individually explain what a worldview is. Ideally - then pair, share & compare. **IP:** use pen-and-paper if share and compare option to be used in-person. **SO:** use chat function - all post at one time. **IP/SO**: use polling tools. | **LCA: Support knowledge acquisition** on worldviews, in the context of e.g. climate change, or Raworth's shortfall dimensions. **AOL:** Prompt reflection on worldviews. **FTL:** Peer-comparators helps expand learner's range of perspectives. |
| **Video Part 1: (16:40)** | Prompt learners to reflect on how their perspective on worldviews has changed. Ideally individually then collaboratively – prompt development of empathy for alternate perspectives. **IP:** use pen-and-paper if share and compare. **SO:** use chat function – and/or breakout rooms. **IP/SO**: use polling tools. | **LCA:** Prompt individual reflection, on worldviews, in the context of e.g. western, indigenous, ancient Irish worldviews. **AOL:** Require learner to 'take a position'. Enable share-and-compare with peers. **FTL: e**xpand learner' empathy for others. |
| **Video Part 2: (5.11)** | **Prompt** question: *What is a belief/attitude?* Prompt consideration of terms. Ideally pair and share.  Learners become aware of own and colleagues' beliefs and attitudes, and influences on the formation or beliefs and attitudes. [**IP and SO**] | **LCA:** Support knowledge acquisition related to beliefs and attitudes. **AOL:** Prompt reflection, and peer learning related to beliefs and attitudes. **FTL:** expand learner' range of perspectives |
| **Video Part 2: (15:36)** | **Prompt** question: *What are values?* Provide learners opportunity to individually and collaboratively consider values. Ideally pair & share. Learners become aware of own and colleagues' values, and how they impact on worldviews. | **LCA:** Prompt individual reflection on values & what underpins their formation. **AOL:** Require learner to 'state a position'. Enable share-and-compare with peers. **FTL:** Peer-discussion & comparators help **e**xpand learner's self-awareness re values. |
| **Video Part 2: (17:39)** | **Prompt** learners to complete the survey. [Schwartz's Basic Human Values survey]. Clarify scoring process and enable Q&A. Ideally pair and share.  Learners develop insight into their values, and the use of the Values map (Schwartz, 2006). **Prompt:** why is it important to understand values? | **LCA:** Support knowledge acquisition related to common human values. **AOL:** learners develop insight into their own values/ self-appraise using the tool. **FTL**: deepen learner' appreciation of understanding own and others' values. |
| **Video Part 2: (20:36)** **(24:00)** **(25:37)** **(26:39)** | **Prompt: What kinds of values do you think are most strongly emphasized by our culture?** **Prompt:** How might attitudes, beliefs and values be leveraged for change? **Prompt:** Explain how Worldviews change? **Prompt:** How might art & story impact worldview? | **AOL:** learners develop insight into their own and others' values, and the impact of culture & the creative arts on worldviews. **FTL**: deepen learner' understanding of how culture and values impact sustainable development and potentially challenge initiatives related to climate change. |

Table is aligned with Milwood's Learning Theories Map:  UNESCO ESD Preferred Pedagogical Approaches.

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# Guidance for Educators using this resource for teaching [Part 3&4 of 5]

(3)  Colonialism and capitalism impacts on climate justice: History of the DRC in focus.

(4)  Power, privilege and social justice: Inequality and climate produce worse outcomes.

| Slide Title (time) | Teaching Practice(s): options for: IP: in-person/in classroom teaching SO: synchronous online teaching | UNESCO pedagogical approaches* LCA: Learner-centred approach AOL: Action-Oriented Learning FTL: (Fostering) Transformative Learning |
|---|---|---|
| Part 3: (2:24) (4:42) (7:06) | Prompt consideration of whether *infinite economic growth on a finite planet* is a paradox. Prompt reflection on *metrics of well-being*. Prompt exploration of national doughnuts data. Prompt to share-and-compare with peers | **LCA: Support knowledge acquisition** on economics, in e.g. *growth on a finite planet* and *metrics of well-being*. **AOL:** Exploration of Local doughnut Data. **FTL:** Peer-comparators helps expand learner's range of perspectives. |
| Part 3: (10:14) (14:42) (19:30) | Prompt peer-debate related to colonialism. Scaffold peer-debate on how DRC examples align with gender equality and social equity. Prompt discussion on how to address the inequity exacerbated by Neo-colonialism. | **LCA:** Prompt individual reflection on e.g. gender equality and social equity. **AOL:** Require learner to 'take a position'. Enable share-and-compare with peers. **FTL:** Expand learner' understanding of how others are impacted by inequity due to colonialism and Neo-colonialism. |
| Part 3: (17:24) | Prompt learners to summarise what Colonialism, Neo-colonialism and Climate Justice mean to them. **IP:** use pen-and-paper if share and compare option to be used in-person. **SO:** use chat function - all post at one time. **IP/SO:** use polling tools. | **LCA: Support knowledge acquisition** on how Climate Justice is challenged by legacy of Colonialism and Neo-colonialism. **AOL:** Require learner to 'take a position'. **FTL:** Expand learner' understanding of and empathy for their peers' perspectives on Climate Justice, and what should be done. |
| Part 4: (2:04) | **Prompt consideration of the concepts:** Power, privilege and social justice; Inequality within and between countries & Climate change's impact on outcomes. | **LCA:** Support knowledge acquisition on e.g. Power, privilege and social justice: **AOL:** Exploration of how Inequality and climate produce worse outcomes. **FTL:** support development of global views |
| Part 4: (7:09) | Prompt learners to summarise how inequality and climate intersect to produce worse outcomes. **IP:** use pen-and-paper if share and compare option to be used in-person. **SO:** use chat function - all post at one time. **IP/SO**: use polling tools. | **LCA:** Support knowledge acquisition on the impacts of global warming on e.g. food **AOL:** Exploration of how Inequality and climate produce worse (food) outcomes. **FTL:** Expand learner' understanding of how between and within country inequity exacerbates impacts of climate change. |
| Part 4: (9:30) | Prompt consideration of concepts such as power, privilege and intersectionality. Prompt learners to complete the wheel of power/privilege and reflect on their status. | **LCA:** Prompt learner reflection on power, privilege and intersectionality. **AOL:** Complete the wheel of power. **FTL:** Wheel of power/privilege prompts peer-discussion on (privileged) status. |

Table is aligned with Milwood's Learning Theories Map:  UNESCO ESD Preferred Pedagogical Approaches.

### (5) Principles of climate justice: A Framework for addressing inequality and climate justice.

| Slide Title (time) | Teaching Practice(s): options for: IP: in-person/in classroom teaching SO: synchronous online teaching | UNESCO pedagogical approaches* LCA: Learner-centred approach AOL: Action-Oriented Learning FTL: (Fostering) Transformative Learning |
|---|---|---|
| Part 5: (3:24) | Prompt learners to reflect on how we might *'simultaneously address the underlying justice in our world and work to eradicate poverty, exclusion and inequality'* then agree in groups of three to debate/critique. **IP:** use pen-and-paper if share and compare. **SO:** use chat function – and/or breakout rooms. **IP/SO:** use polling tools. | **LCA:** Support knowledge acquisition on issues related to climate justice. **AOL:** Prompt reflection on climate Justice in the context of eradicating poverty, exclusion and inequality. **FTL:** Peer-comparators helps expand learner's range of perspectives/options. |
| Part 5: (7:47) | Prompt questions to align with the MRFD principles for climate justice e.g. why climate justice should/should not be central? Ranking / balancing the principles? | **LCA:** Awareness of the MRFD principles. **AOL:** Prompt learners to rank/balance the principles in context of specific scenarios. **FTL:** Expand confidence that 'local' (youth and MR) are positive activists in this area) |
| Part 5: (9:30) (10.22) | Prompt consideration of Ireland's data as available from: goodlife.leeds.ac.uk Prompt peer-discussion related to 'post growth and just transition policies' (X8) | **LCA: Learner'** awareness of the eight post-growth and Just Transition Policies **AOL:** Prompt learners to access goodlife.leeds.ac.uk for their locality. **FTL:** Peer-debate helps expand learner's empathy & range of perspectives/options. |
| Part 5: Optional addition | Prompt consideration of UNESCO's (2017). framework : UNESCO Declaration of Ethical Principles in relation to Climate Change Groups compare with MRFD principles. | **LCA:** Awareness of UNESCO's framework **AOL:** Choice of 2 ethical decision-making frameworks increases learner options. **FTL:** Expand range of supports to engage with multiple perspectives and cultures. |
| Part 5: Optional addition | Prompt consideration of ethical decision-making framework(s) directly aligned with learner's/teacher's own discipline. | **LCA:** Awareness of discipline's framework. **AOL:** Search for/review discipline-specific frameworks expands professional identity. **FTL:** Develop their agency to engage with Climate Change from within discipline. |
| Part 5: Optional addition Part 5: (15:30) | Prompt consideration of Eco-anxiety. Signpost to resources available to learners/ teachers. Prompt consideration of key takeaways/ summary | **LCA: scaffold** **AOL:** *Action-learning increases knowledge acquisition, competency development and values clarification by linking abstract concepts to personal experience and the learner's life* **FTL**: Support personal management of eco-anxiety for immediate and future use |

*Table is aligned with Milwood's Learning Theories Map: UNESCO ESD Preferred Pedagogical Approaches.

# References and Recommended Resources

## UNESCO Preferred Pedagogical Approaches (UNESCO, 2017:55)

Barth, M. 2015. Implementing sustainability in higher education: learning in an age of transformation. London, Routledge.

Kolb, D. A. 1984. Experiential Learning: Experience as the Source of Learning and Development. Englewood Cliffs, N.J., Prentice-Hall

Lotz-Sisitka, H.; Wals, A. E.; Kronlid, D. & McGarry, D. 2015. Transformative, transgressive social learning: rethinking higher education pedagogy in times of systemic global dysfunction. Current Opinion in Environmental Sustainability, Vol. 16, pp. 73–80.

Mezirow, J. 2000. Learning as transformation: critical perspectives on a theory in progress. San Francisco, Jossey-Bass.

Slavich, G. M. and Zimbardo, P. G. 2012. Transformational Teaching: Theoretical Underpinnings. Basic Principles, and Core Methods. Educational Psychology Review, Vol. 24, No. 4, pp. 569–608

## ESD Teaching Practice(s)

Angelo, T.A. & Cross, P.K. (1993). *Classroom Assessment Techniques* and Davis, B.G. *Tools for Teaching.*

Gibbs, G. (1998). Learning by doing. A Guide to Teaching and Learning Methods. Oxford: Further Education Unit, Oxford Polytechnic.

Mezirow, J. & Taylor, E. (Eds) (2009). Transformative Learning in Practice: Insights from Community, Workplace, and Higher Education. Jossey-Bass.

Nicol, D. (2020). The power of internal feedback: exploiting natural comparison processes. *Assessment & Evaluation in Higher Education*, *46*(5), 756–778.

Roche, C.; Thoma, S.J.; Grimes, T. & Radomski, M. (2017). Promoting peer debate in pursuit of moral reasoning competencies development: Spotlight on educational intervention design. Innovations in Pharmacy. 8(2).

## Enacting Education for Sustainable Development: recommendations as general resources.

Centre for Sustainable Healthcare (UK Charity) e.g. Four principles of sustainable healthcare.

Climate Migrants – an Introduction (ESRI): Rising seas, Extreme Heat, Water Woes & Climate and Conflict.

Doughnut Economics Action Lab : e.g. A safe space for humanity.

Stockholm Resilience Centre : e.g. Planetary Boundaries.

United Nations Framework Convention Climate Change (UNFCCC)

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Header image graphic created by RosZie – Pixabay (edited).

**Further Information:**

For further links and resources, please visit [the Centre for Academic Practice's ESD Hub](#).