



Educating for Tomorrow's Unknowns: Sustainability Front and Centre

Public Lecture Series
Faculty of Education
07 March 2023



CHARLES HOPKINS, UNESCO CHAIR



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The global risk landscape (WEF 2023)



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Sustainable development: the current solution

"Sustainable development is development that meets the needs of the present, without compromising the ability of future generations to meet their own needs."
 (United Nations Brundtland Commission Report, 1987)

Enough, for all, forever. (African Elder, 2002)

Well-being, for all, forever. (Hopkins, 2006)

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Sustainable development: a historical perspective of frameworks

Founding United Nations	Brundtland Report	Agenda 21	Millenium Development Goals	The World We Want Campaign	2030 Agenda w/ the 17 SDGs Paris Agreement
1945	1987	1992	2000	2012	2015















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The Sustainable Development Goals (SDGs) in the 2030 Agenda



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The Global Education 2030 Agenda

SDG 4 on Quality Education

Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all

By 2030 all learners will have...

- 4.1 Complete free quality primary and secondary school
- 4.2 Access to early childhood education and care
- 4.3 Equal and affordable quality technical, vocational, tertiary education
- 4.4 Skills for employment and entrepreneurship
- 4.5 Eliminate gender disparities, equal access for vulnerable groups
- 4.6 Ensure youth and adults have numeracy & literacy
- 4.7 **Knowledge and skills for sustainable development**



Credit: United Nations

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ESD: more than vital element of SDG 4

SDG 4 Quality Education

Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all

SDG target 4.7

by 2030 ensure all learners acquire knowledge and skills needed to promote sustainable development, including ...**through education for sustainable development** ... 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.

➔ **ESD is a key enabler of all SDGs.**

Credit: UN Portal, UNESCO, Unsplash/T. Bish

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The four aspects of ESD

Sustainability is a purpose of education.

The original concept of ESD has 4 thrusts (Agenda 21, 1992):

- Access to and retention within quality education
- Reorienting existing education and training systems towards sustainability
- Public awareness and understanding of the concept of addressing sustainability
- Training programs for all sectors

ESD is a **holistic learning approach**.



Credit: United Nations

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Global citizenship is a state of mind.

Global citizenship refers to a sense of **belonging** to a broader **community** and common **humanity**. It emphasises political, economic, social and cultural **interdependency** and the **interconnectedness** between the local, national and the global.

UNESCO, 2015

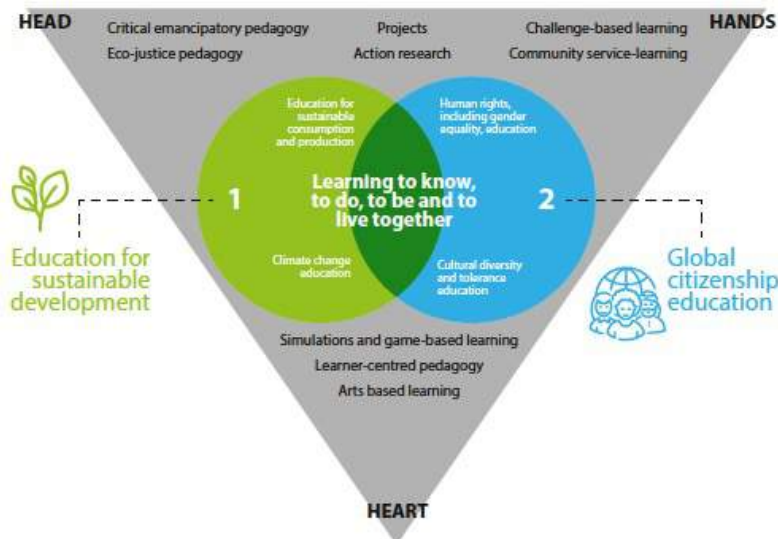
- ✓ ... not a challenge to national borders or formal citizenship.
- ✓ ... an urging to accept the larger responsibilities.
- ✓ ... does not come with legal rights – only a sense of individual and collective responsibilities, also corporate social responsibility.



Education for sustainable development (ESD) & global citizenship education (GCED) at the core: synergies


ESD focuses on **knowledge and skills** to manage ambiguity and uncertainty, and solve complexities, in a context of social justice and concern for all life forms.

ESD is a **systemic** approach emerging from natural sciences.



GCED addresses the social responsibility and skills of the individual to act. It also suggests that the action be to the benefit of all life forms.

GCED focuses on the individual within a system emerging from social sciences.



We are increasingly asking if what people learn is truly relevant to their lives, if what they learn helps to ensure the survival of our planet. Education for Sustainable Development can provide the knowledge, awareness and action that empower people to transform themselves and transform societies.

- Soraida Garmy, Assistant Director General for Education, UNESCO

Stages of transformation

1. Acquisition of knowledge and information → learners come to be aware of the existence of certain realities
2. Critical analysis → understand the complexity of those realities
3. Experiential exposure to the realities → a deeper connection with issues & empathic connection to those affected by realities
4. **Compassion** when relevance to the learners' own lives and their sense of identity
5. A knowledgeable compassionate mind is set on the path of empowerment!

UNESCO ESD for 2030 Roadmap

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Canada and the SDGs



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Ontario and the SDGs

Transferable Skills in the Grade 1-12 Curriculum

- critical thinking and problem solving
- innovation, creativity, and entrepreneurship
- self-directed learning
- collaboration
- communication
- **global citizenship and sustainability**
- digital literacy

Ontario Curriculum since 2018

“We recognize that our actions as Faculties, Colleges, Schools, and Departments of Education are complicit in this critical trajectory. We have a responsibility and opportunity to make a difference.”

Association of Canadian Deans of Education

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Are teachers ready to teach ESD/GCED?

1 in 4 teachers
do not feel ready to teach themes related to sustainable development or global citizenship and peace

UNESCO global survey amongst 58,000 educators (2021)



Teachers have their say

Motivation, skills and opportunities to teach education for sustainable development and global citizenship

Credit: UNESCO Teachers have their say 2021

Education 2030

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The crowded curriculum (but is it enough?)



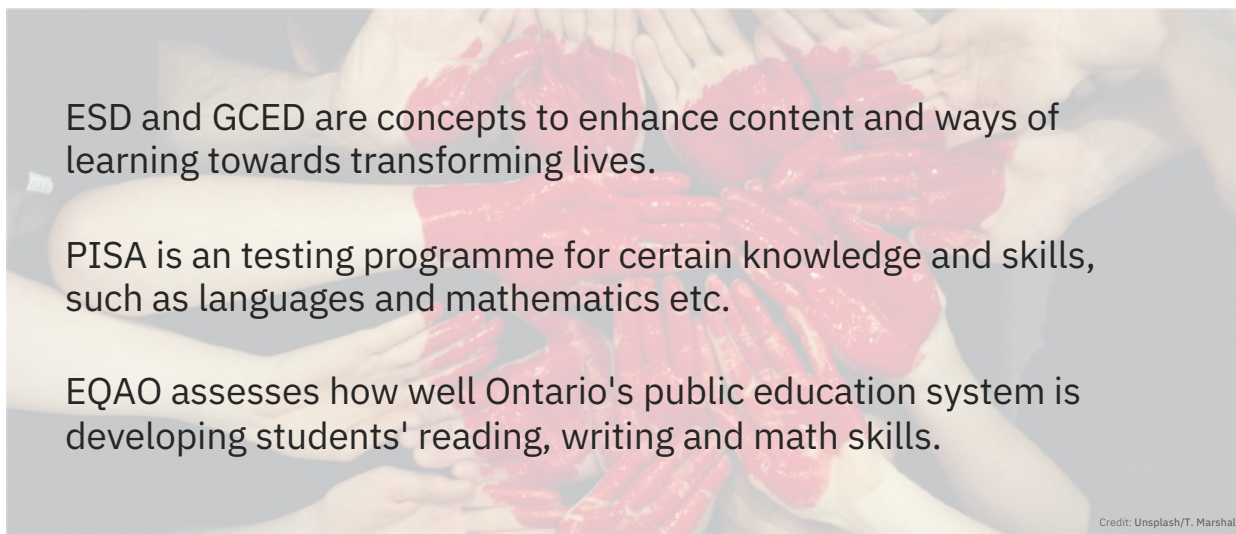
Environmental Education, Population Education, Development Education, Energy Education, HIV/AIDS Education, Permaculture Education, Citizenship Education, Democracy Education, Consumer Education, Media Education, Outdoor Education, Experiential Education, Workplace Education, Conservation Education, Anti-Racist Education, Religious Education, Equity Education, Gender Education, Holocaust Education, Entrepreneurship Education, Horticulture Education, Water Education, Global Education, Drug Education, Sex Education, International Studies, Family Studies, Human Rights Education, Women's Studies, Native Studies, Values Education, Natural History Education, Vocational Education, Economic Education, Anti-smoking Education, Conflict Resolution Education, Workplace education, Disaster Prevention Education, Computer Studies, Life-Skills Education, Recycling Education, Civics Education, Heritage Education, Community Studies, Multicultural Education, Anti-Violence Education, Systems Thinking Education, Futures Education, Biodiversity Education, Pioneer Studies, Nutrition Education, Resource Management Education, Self-Image Education, Peace Education, Artificial Intelligence Education, ...

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ESD or GCED: in line with PISA or EQAO testing?



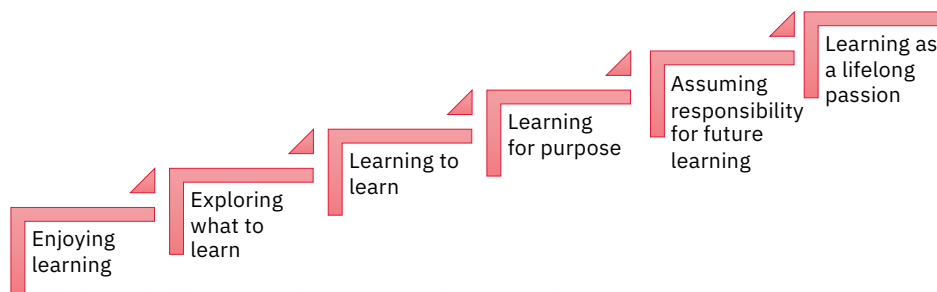
ESD and GCED are concepts to enhance content and ways of learning towards transforming lives.

PISA is an testing programme for certain knowledge and skills, such as languages and mathematics etc.

EQAO assesses how well Ontario's public education system is developing students' reading, writing and math skills.

Credit: Unsplash/T. Marshall

Addressing learning stages and learning frameworks



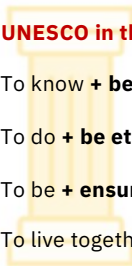
1996 UNESCO Delors

- To know
- To do
- To be
- To live together



2015 UNESCO in the frameworks of the SDGS

- To know + **be aware of unknown**
- To do + **be ethically engaged**
- To be + **ensure equity for others to be**
- To live together + **with "others" sustainably**



2021 Futures of Education

- Learning to become
- Transforming education
- Education to transform



Youth leadership: engaging with young voices

School Strike for Climate
Fridays for Future



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Pursuing well-being



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Global to local communities' challenges with sustainable development



ENVIRONMENTAL PLANET

- Air quality
- Housing
- Transportation
- Waste/sewage
- Energy

SOCIAL PEOPLE

- Exclusion
- Mobility
- Access
- Equity
- Gender

ECONOMIC PROSPERITY

- Decent work
- Tax base
- Poverty issues
- Corruption
- Infrastructure



Understanding sustainability resilience

Prevention of issues or potential threats.

- Awareness to assess threat and the need to act
- Determine if threat is already established or newly emerging

Mitigation efforts to lower or reduce the impact

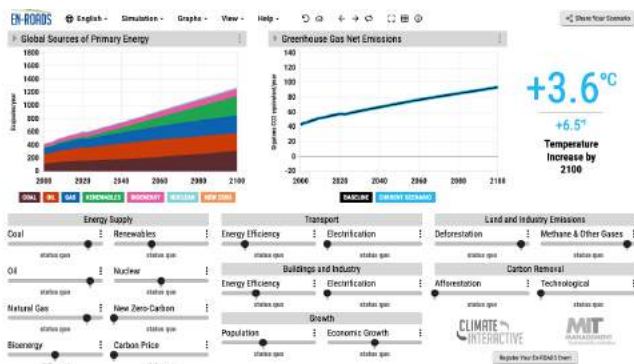
- Strategies, scenario planning
- Prepare public and private sectors

Adaption measures to cope and eventually thrive in the new context

- Sound natural, social and political sciences to base policy/practice
- Adaptation as opportunity



Simulators and artificial intelligence: adding to the tool belt



Credit: <https://en-roads.climateinteractive.org/scenario.html>

How do science, technology and public policy contribute to Sustainable Development Goals?

OSDG is a free, open-source tool that assigns SDG labels to your input.

Text input | PDF file | Bulk access/API

Paste a research abstract or other text

Type in or paste any text segment (e.g. research abstract, publication excerpt) in one of the 15 associated languages. The text should contain at least 50 words. Results are generated instantly.

What will happen to my text input?

Using satellite data on deforestation and together with meteorological data we have built a model to simulate the causal effect of deforestation on access to clean drinking water in the existing literature on forest carbon and hydrology. The approach in that deforestation increases water yield. In this study, we directly measure the causal effect of deforestation on household access to clean drinking water. Results of the two-stage least squares (2SLS) with cluster and time fixed effects demonstrate strong empirical evidence that deforestation decreases access to clean drinking water. Deforestation leads to a 1.3 percentage point increase in deforestation decreases access to clean drinking water by 0.23 percentage points. With this estimated impact, deforestation in the last decade in Mexico (24%) has had the same magnitude of effect on access to clean drinking water as that of a 1% increase in rainfall.

GET SDG LABELS

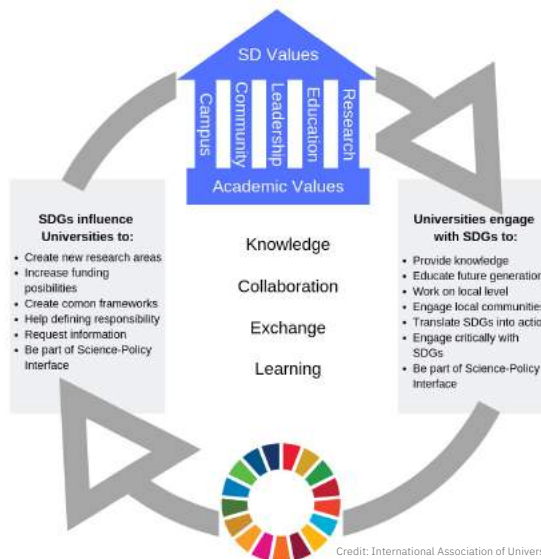
Credit: <https://osdg.ai/>

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Higher education and the SDGs: it is a win-win situation for graduates, research, and serving the global community.

9 SDGs mention the roles of higher education:

	1 x Research		1 x Education
	1 x Education 1 x Research		4 x Research
	9 x Education 1 x HE 1 x University		1 x Education
	1 x Research		1 x Research 1 x Science
	2 x Science		



Credit: International Association of Universities

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Credit: York University

York University's Academic Plan (2020-2025)

Answering the Call:
A University-Wide Challenge to
Contribute to the UN Sustainable
Development Goals.



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Your
handprint
counts...



So, what we do as
individuals
matters.
It adds up.

Maurice Strong

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Thank you





UNESCO Chair in Reorienting Education towards Sustainability
York University Toronto, Canada


Charles Hopkins

 Chopkins@edu.yorku.ca

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