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Greening Education Indicators

November 22, 2022

Indicator Development Lead, Monitoring and Evaluating Climate Communication and Education (MECCE) Project

Greening Education Indicator Ideas

- **Ready to go**
  - *Content Analysis of National Policy Intentions*
  - *Climate/ sustainability learning outcomes (PISA 2018)*

- **Development Required**
  - *Official timetable analysis (grades 1-8)*
  - *Analysis of subject-specific syllabi (select grades)*
  - *Global census/mapping of Climate/ Environment focused organizations*

- **Still hypothetical**
  - *More comprehensive learning outcomes*
  - *Textbook analysis (select grades and subjects)*
  - *School Infrastructure*

Content Analysis of National Policy Intentions

Measures of the integration of a green dimension in National Policy Documents

- **The MECCE project has already developed indicators based on keyword searches of NCFs and TVET policies (and laws)**
- **National Curriculum Frameworks: 170+ collected for 133+ countries**
- **TVET Policies: 80+ collected for 60+ countries**

Adding cases to existing databases is possible

More sophisticated analysis employing Natural Language Processing is envisioned

Climate Change Learning Outcomes

PISA 2018 included several relevant questions, which MECCE utilized to develop an indicator

The three items used for the indicator were:

- "How easy do you think it would be for you to perform the following tasks on your own?",

  a) Explain how carbon-dioxide emissions affect global climate change,

  b) Explain why some countries suffer more from global climate change than others

- "How informed are you about the following topics?",

  a) "Climate change and global warming."

Limited country coverage and robustness as a measure of learning outcomes

The greening of official curricular timetables

- **Collaborate with IBE to compile official country timetables for grades 1-8.**

- **Similar work was previously completed in the early 2000s and integrated in EFA GMR 2002**

- **Measures of greening timetables**
    1) Dichotomous variable – are "green" subjects taught or not taught;
    2) What percentage of total annual time is devoted to EE or green subjects; and
    3) Absolute number of annual hours allocated to EE and/or green subjects

Syllabus Study

Collect subject syllabi in natural and social sciences and determine, using standard rules, the prevalence of instruction in areas related to Greening (e.g., sustainability, climate, and environmental issues)

Census of Organizations

Number of Education related NGOs and CSOs that list as their primary mission, climate, environmental, or sustainability issues.

Dataset is currently being compiled (by Dr. Oren Pizmony-Levey, MECEE Partner) of all types of NGOs and CSOs, which could be analyzed for those focused on Greening Education.

Hypothetical Indicators

- **Possibilities for Learning Outcomes**
  - **Future assessments being designed by IEA and OECD/PISA 2023 and 2024**
  - **Utilizing Linkedin profile data to measure the frequency that young professional list green skills and/or certifiable qualifications**

- **Textbook Analysis**

- **School Infrastructure**

Questions

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The MECCE Project

- CA$4.5M 6-year (2020-2026) project, main funding from the Social Sciences and Humanities Research Council of Canada and partner contributions

- Aims to increase the *quality* and *quantity* of climate change communication and education (CCE) (i.e., ACE) globally

- Provides international and national policymakers with the latest evidence-based insights to support decision-making

- A global collaboration with 100+ partners and collaborators, with UNFCCC, UNESCO, IPCC, & GEM Report on Advisory Committee
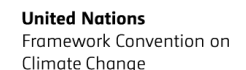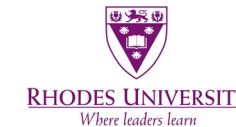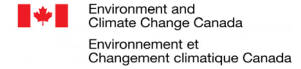
Areas of Work

- Axis 1: Evaluating and Improving Quality
  - Country profiles (50 so far)
  - Case Studies (10 per year)
- Axis 2: Monitoring and Increasing Quantity
- Axis 3: Research Impact
  - Project Website/blogs
  - COP and other conferences
  - **Interactive Data Platform**

Monitoring

- Providing global datasets and indicators, moving beyond self-reported data

- Supporting increased quantity of quality ACE

- Enabling country benchmarking, more ambitious target setting, and learning from other country examples

- Advancing and going beyond achievement of Paris Agreement targets and SDGs

Evaluation

- Increasing the quality of ACE through regional and culturally specific approaches

- Going beyond information *about* climate change, and engaging with social factors of denial and anxiety, gender, and financing

- Supporting individual and structural ACE action across sectors and regions

Recommendations for ACE Monitoring & Evaluation (M&E)

- Monitoring, Evaluation, and Reporting is one of four priority areas in the Glasgow Work Programme, alongside policy coherence, coordinated action, & tools and support

- Develop a coordinated, rigorous M&E ACE framework that supports robust data and indicators

  - Agreed upon measures, able to be used flexibly by countries

  - Coordinate on implementation guidelines, data collection, and compilation processes that are accessible to all countries (e.g., partnerships with Non-member Parties)

  - Collaborate with policy makers, researchers, and practitioners, as well as youth, Indigenous peoples, and other marginalised groups

- Report to citizens and through UNFCCC processes (e.g., National Communications) and frameworks such as SDGs