Education, Learning and Capacity-Building in Times of Climate Change: towards and integrated strategy

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Global Education Meeting 2018

Source: www.climateaccess.org,
Rosemary Randall: Carbon Conversations
Global Education Meeting 2018

Forum title, 3 December 2018

The Spectator

Relax: Global Warming Is All A Myth

Most Used Climate Myths

1. Climate's changed before
2. It's the sun
3. It's not bad
4. There is no consensus
5. It's cooling
6. Models are unreliable
7. Temp record is unreliable
8. Animals and plants can adapt
9. It hasn't warmed since 1998
10. Antarctica is gaining ice

View All Arguments...
Beyond ‘Fake News’
10 Types of Misleading News

- Propaganda: adopted by governments, corporations, and non-profits to manage attitudes, values, and knowledge; appeals to emotions; can be beneficial or harmful.
- Partisan: ideological and includes interpretation of facts but may claim to be impartial; privileges facts that conform to the narrative whilst forgoing others; emotional and passionate language.
- Clickbait: eye-catching, sensational headlines designed to distract; often misleading and content may not reflect headline; drives ad revenue.
- Conspiracy Theory: tries to explain simply complex realities as response to fear or uncertainty; not falsifiable and evidence that refutes the conspiracy is regarded as further proof of the conspiracy; rejects experts and authority.
- Sponsored Content: advertising made to look like editorial; potential conflict of interest for genuine news organisations; consumers might not identify content as advertising if it is not clearly labeled.
- Pseudoscience: purveyors of greenwashing, miracle cures, anti-vaccination and climate change denial; misrepresents real scientific studies with exaggerated or false claims; often contradicts experts.
- Satire and Hoax: social commentary or humour; varies widely in quality and intended meaning may not be apparent; can embarrass people who confuse the content as true.
- Misinformation: includes a mix of factual, false or partly false content; intention can be to inform but author may not be aware the content is false; false attributions, doctored content and misleading headlines.
- Error: established news organisations sometimes make mistakes; mistakes can hurt the brand, offend or result in litigation; reputable orgs publish apologies.
- Bogus: entirely fabricated content spread intentionally to disinform; guerrilla marketing tactics; bots, comments and counterfeit branding; motivated by ad revenue, political influence or both.

Dig Deeper...
- False Attribution: authentic images, video or quotes are attributed to the wrong events or person.
- Counterfeit: websites and Twitter accounts that pose as a well known brand or person.
- Mislabeled: content does not represent what the headline and captions suggest.
- Doctored Content: content, such as statistics, graphs, photos and video have been modified or doctored.

Impact
- Neutral
- Low
- Medium
- High

Motivation
- Money
- Politics/Power
- Humour/Fun
- Passion
- (Mis)Inform

Source: www.eavi.eu
Mix of strategies to change and engage citizens

- Co-creative
Citizens have little input

Goals are jointly set

Goals have been set in advance

Citizens have lots of input

‘Simple’

Persuasion

Expert-driven sustainability

Nudging & social marketing

Interaction & co-creation

Society-driven sustainability

Based on Wals & Jickling, 2002; Jickling & Wals, 2008
### Educating for Climate Action (goals)

**Table 1.2.13. Learning objectives for SDG 13 “Climate Action”**

<table>
<thead>
<tr>
<th>Cognitive learning objectives</th>
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<tbody>
<tr>
<td>1. The learner understands the greenhouse effect as a natural phenomenon caused by an insulating layer of greenhouse gases.</td>
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<tr>
<td>2. The learner understands the current climate change as an anthropogenic phenomenon resulting from increased greenhouse gas emissions.</td>
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<td>3. The learner knows which human activities – on a global, national, local and individual level – contribute most to climate change.</td>
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<td>4. The learner knows about the main ecological, social, cultural and economic consequences of climate change locally, nationally and globally and understands how these can themselves become catalysing, reinforcing factors for climate change.</td>
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<tr>
<td>5. The learner knows about prevention, mitigation and adaptation strategies at different levels (global to individual) and for different contexts and their connections with disaster response and disaster risk reduction.</td>
<td></td>
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</tbody>
</table>

Source: UNESCO, 2016
Educating for Climate Action (goals)

1. The learner is able to explain ecosystem dynamics and the environmental, social, economic and ethical impact of climate change.

2. The learner is able to encourage others to protect the climate.

3. The learner is able to collaborate with others and to develop commonly agreed-upon strategies to deal with climate change.

4. The learner is able to understand their personal impact on the world’s climate, from a local to a global perspective.

5. The learner is able to recognize that the protection of the global climate is an essential task for everyone and that we need to completely re-evaluate our worldview and everyday behaviours in light of this.

Source: UNESCO, 2016
Educating for Climate Action (goals)

1. The learner is able to evaluate whether their private and job activities are climate friendly and – where not – to revise them.

2. The learner is able to act in favour of people threatened by climate change.

3. The learner is able to anticipate, estimate and assess the impact of personal, local and national decisions or activities on other people and world regions.

4. The learner is able to promote climate-protecting public policies.

5. The learner is able to support climate-friendly economic activities.

Source: UNESCO, 2016
Educating for Climate Action (goals)

Box 1.2.13a. Suggested topics for SDG 13 “Climate Action”

Greenhouse gases and their emission

Energy, agriculture and industry-related greenhouse gas emissions

Climate change-related hazards leading to disasters like drought, weather extremes, etc. and their unequal social and economic impact within households, communities and countries and between countries

Sea-level rise and its consequences for countries (e.g. small island states)

Migration and flight related to climate change

Prevention, mitigation and adaptation strategies and their connections with disaster response and disaster risk reduction

Local, national and global institutions addressing issues of climate change

Local, national and global policy strategies to protect the climate

Future scenarios (including alternative explanations for the global temperature rise)

Source: UNESCO, 2016
Citizen Science can help...

Citizens become more meaningfully engaged when they are empowered and equipped to monitor data about their own environment.

Citizens come to understand the nature of scientific knowledge, the meaning of data (validity & reliability) better when actively engaged in scientific inquiry.

Citizens discover how easy and quickly one can become an expert in a specific issue in their own local environment.

Citizens self-monitor the impact of one’s own actions, help them become more reflexive and effective in bringing about change.

→ Access to cheap ICT with enormous monitoring and storing capacity makes ‘doing science’ easier and more affordable.
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Content
Resilience, Disruption, Alternative Dev., SDG-themes, Closed cycle design, Cradle-to-cradle, Place & identity

Pedagogy & learning
- Systems thinking
- Social learning
- Transformative learning
- Values & ethics

Capacity-building
- Professional development,
  Competence-based assessment
- Reflexive praxis,
  Civic science

Place-based institutional practices
Walking the talk: experimenting with and learning from creating sustainability on location

Leadership, Coordination, Visioning, Governance

Society
- World of work, citizens and governance
- Operating within multi-stakeholder environments
- Societal impact
Sustainability is not just something to learn, it’s something to live!

- Students should learn about sustainable development and global citizenship to help them understand the world they live in.
- School garden programmes can teach healthy eating and help build an emotional connection with the natural world.
- Education is the best tool for climate change awareness.
- Schools should build relationships and engage with community issues.
- Schools should be safe and sustainable, conserving water and energy and reducing waste.
- The whole school approach addresses the needs of all learners.

The whole school approach to sustainability brings together what is taught, how it’s taught, extracurricular activities, teacher training, decision making processes, the physical buildings, the environment, and the wider community.

UNESCO, 2016 / GEM2016 Report
Conclusions

• A mix of education, communication and learning-based approaches is available
• The ‘nature’ of the climate change challenge determines which approaches are most effective
• Heart, hands and head need to all be engaged to have a deeper response
• Citizen science can empower and engage people through active monitoring of climate change impact
• The structures and spaces around people need to make sustainability easier so that climate sensitive behaviour is ‘invited’ and becomes the new normal
Thank you