


# Intertwined States of Emergency: Education in the Time of COVID-19 and the Climate Crisis

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## Summary

The article highlights how the COVID-19 emergency is, in part, a symptom of the larger climate emergency, and is a further warning of the urgent need to accelerate climate action. Education is key to tackling the affective, social and behavioural barriers to climate action. This article shares pedagogical and policy approaches that can help shift cultural orientations to redress these intertwined emergencies.

## Keywords

Climate Change  
COVID  
Emergency  
Education Policy  
Environmental Education

The climate emergency, it turns out, is a driver for a “new era of pandemics” ([Goodell, 2020, np](#)). As temperatures shift across the globe, the resulting “wild exodus” of species’ migration combined with human destruction of wildlife habitats, is thought to be a key contributor to new interactions between species, and thus the evolution of new vector-borne and zoonotic diseases ([Mills et al., 2010](#); [Shah, 2020](#); [Beyer et al., 2021](#)). U.S. Chief Medical Advisor Anthony Fauci has warned, “The way we are now interacting on our planet with the environment...will have a great effect on vector-borne diseases” (Goodell, 2020, np). Unfortunately, future pandemics may also be less forgiving in terms of mortality rates (Ryan in [Trocaire, 2021](#)). The COVID-19 emergency, while debilitating and laying bare geographic and social inequalities (as earlier sections of the NORRAG Special Issue make clear) is also a new form of wake-up call to the even more perilous future emergencies to be faced if more rapid and ambitious climate action is not taken by countries and communities.

Yet, catalysing such bold and urgent climate action will be tough for two reasons: an overreliance on technical solutions; and an aptness to viewing our present public health and climate emergencies as separate and unrelated. Responding to these twin challenges will require new ways of thinking, as well as new ways of doing and being in the world. Rappleye et al. (this issue), for example, outline how the West (and North) continue to rely on, and perhaps have renewed confidence in, science and human ingenuity as the solutions for global problems created through individualistic and capitalist orientations to progress. They propose, instead, looking to worldviews, including those from East Asia, that centre interconnectedness and interdependency – both between humans and the natural world, and among humans in our collective work to face challenges and flourish.

While we support this critical focus on cultural shifts toward more collectively- and sustainability-oriented worldviews, we want to emphasise that we are not advocating critique of Science or STEM education per se, but of the overreliance on technological innovation and technical solutions – a “Science Will Win” attitude (Rappleye et al., this issue) – to solve what are, at heart, complex challenges that require shifts in values, beliefs, relationships and worldviews. The past decades have been mired by political polarisation, anti-Science and “post-truth” orientations – attributable in part to social media algorithms that foster [ideological echo-chambers](#). Such an affective and ideological landscape has functioned to stymie action supported by scientific consensus, including on issues of climate and COVID-19 ([Boyer & Davies, 2021](#)). In this context, it would be an upside if people came to rely more on science because of our current pandemic-related scientific breakthroughs. Nevertheless, science should not be approached as the only remedy – least of all an infallible remedy – to the underlying unsustainable worldviews that put profit before people and the planet.

Alongside the role of science and technological innovation in a too often “post-truth” world, we have also noted assumptions within [intergovernmental agencies](#), across [popular media](#) and in education circles that the COVID-19 and climate emergencies are unrelated, or even that they are in conflict – in that the pandemic is drawing attention and resources away from addressing climate change. Such disconnected thinking blinds us to the fact that we are not playing a zero-sum game. Rather, COVID-19 is yet another sign that we are approaching planetary limits with an increasingly narrow window to correct our course. Mike Ryan, Executive Director of the World Health Organization’s Emergencies Programme, responsible for the organization’s COVID-19 response, made this point passionately and eloquently:

We are pushing nature to its limit. We are pushing population to its limit. We’re pushing communities to their limits. We’re stressing the environment. We are creating the conditions in which epidemics flourish. We’re forcing and pushing people to migrate away from their homes because of climate stress. We’re doing so much and we’re doing it in the name of globalisation and some sense of chasing that wonderful thing that people call economic growth. In my view, that’s becoming a malignancy, not growth, because what it’s doing is driving unsustainable practices in terms of how we manage communities, how we manage development, how we manage prosperity. We are writing cheques that we cannot cash as a civilisation and they’re going to bounce. ([Trocaire, 2021](#))

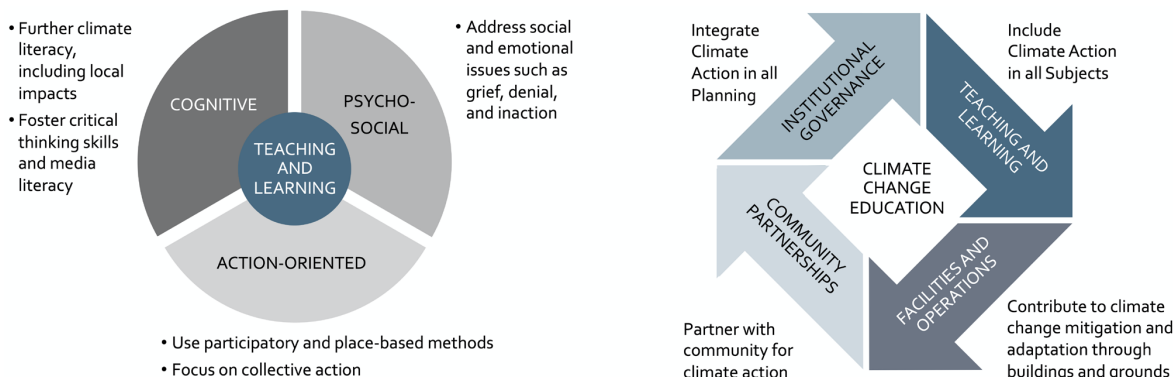
To address these interlinked crises, more of humanity must understand that (1) the causes of the pandemic – and future pandemics – are environmental, including due to human-

induced climate change; and (2) that the causes of climate change and other environmental (and social) issues are in large part a result of dominant cultural propensities for economic and individualistic advantage, regardless of human and planetary costs.

This is where education comes in. The proposed “role of education in addressing environmental issues” is not new, but something that educators, environmentalists, Indigenous communities, youth and more, have worked on for many decades. Education and environment scholars, such as [Daniel Wildcat](#), [Heesoon Bai](#), [Lucie Sauvé](#), [Rishma Dunlop](#), [Chet Bowers](#), and [others](#), have emphasised the centrality of worldview and culture in education to redress destructive relationships with the planet and other species. What Rappleye et al. (this issue) call “cultural shifts” is essentially a call for (Western) education to extend beyond its dominant cognitive exercise – steeped in Cartesian duality – to include interwoven psychosocial and action-oriented dimensions of learning that highlight the interconnection and interdependence between things (Figure 1), rather than their separation and compartmentalisation. Such breadth and integration can help to expand worldviews with real consequences for how we live together and with nature. This requires innovation in pedagogy that emphasises the importance of practical experience, situatedness in place and networks of relationships to enable critical learning and social change ([McKenzie, 2009](#); [Tuck, McKenzie & McCoy, 2014](#); [McKenzie & Bieler, 2016](#); [Ellsworth, 2005](#); [Gaztambide-Fernández, 2012](#)). In a time of intertwined emergencies like COVID-19 and the climate crisis, there is an increasingly urgent need for a radical shift in how we do education, to restore human systems in balance with planetary boundaries.

This is furthered in [recent thinking](#) on “climate change pedagogy” specifically, which draws attention to social and participatory forms of action pedagogy, addressing the affective or psychosocial dimensions of climate change (Figure 1), including societal polarisation, ideology, indifference and denial, anxiety and grief ([Lertzman, 2015](#); [Jesuit & Williams, 2018](#); [Hoggett, 2019](#); [Kwauk, 2020](#); [Hargis & McKenzie, 2020](#); [Kwauk & Casey, 2021](#)). Such advances in climate change education respond to a key finding from research in environmental education: that simply more knowledge of the science, in this case climate science, does not guarantee individual or societal action (e.g., [Kollmus & Agyreman, 2010](#)). These insights also reaffirm that we cannot rely on science alone to save us. We must actively change how we communicate and educate on climate change; change how we think about ourselves (and our social and economic systems) and how we act in our societies and in relation to the planet.

Figures 1 & 2. Climate change education for social change: An integrated and whole-institution approach



Source: Adapted from [Hargis & McKenzie, 2021](#)

In addition to pedagogical strategies that elicit worldview expansion and cultural change, supportive “education policy environments” are also essential. This is especially the case for enabling an integrated and whole institution approach to climate change education that can advance social, cultural and structural change – from involving students and teachers in the classroom, advancing the sustainability of education facilities, partnering with communities on meaningful action, and prioritising climate-based decision-making in overall institutional governance (Figure 2). Explicit climate change or sustainability policy at “each” level of K-12 education policy-making (e.g., national, state, school district, school) has also [been found](#) to be key in strengthening professional development and support for administrators and teachers to include climate and sustainability education in schools. At the higher education level, too often climate and sustainability action has remained in the domain of campus operations, such as through emission reductions, versus also guiding decisions on priority research centres and funding, academic programmes or overall financial operations ([Henderson et al., 2017](#); [McCowan, 2020](#)).

In addition to an enabling education policy environment, “climate policy” must also provide necessary scaffolding for cultural change. Unfortunately, climate policy to date has largely overlooked the key role of education in enabling the social and political will for collective action. Increasingly, climate change communication and education are being identified as key to include in countries’ Nationally Determined Contributions (NDCs) and climate action under the Paris Agreement ([UNESCO, 2020](#); [McKenzie, 2021](#)). But if trends remain the same, technological innovation and an overreliance on science in climate policy suggest that little attention and few resources will go toward ensuring quality climate change communication and education are delivered at the scale needed for collective shifts in worldviews. In response, a new global partnership, the [Monitoring and Evaluating Climate Communication and Education](#)

([MECCE Project](#)), aims to support climate negotiators and decisionmakers to increase the quality and quantity of climate change communication and education globally. Through research-informed recommendations, tools, and strategies for policymakers, the project aims to help strengthen the implementation of holistic and whole-institution approaches to climate change education for social change.

As fires, floods, hurricanes, heat waves, polar vortexes and other human-induced climate events have increasingly disastrous impacts on individuals and communities around the world, we now unfortunately must add climate change’s contribution to “rewriting disease algorithms on the planet” ([Goodell, 2020](#)). As schools and universities reopen for on-site learning, and as we consider what it can mean to “[build back better](#)” as a result of COVID-19, it is key to broaden the scope and depth of understanding of how education is central to developing the worldviews and capacities necessary to face and minimise the challenges ahead. As a global educational community, it is beyond time to mobilise education to inform and enable the change needed to mitigate against intertwined global public health and climate emergencies. Let’s not have it take another pandemic for us to realise we need to act on climate change.

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