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How to Act in a Climate Emergency: guidance for schools

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ABSTRACT The climate and ecological emergency is a crisis of trust and relevance for schools as much as it is of funding and fuel. It raises issues around mental health, equality and accountability, as well as the core function of education. In this article, such issues are outlined, followed by a crisis management guide for rapid implementation that covers guiding principles, as well as practical ideas, for action on decarbonising, well-being, resilience, curriculum and staff training.

Introduction

The contrast with the COVID-19 response is most articulate. Since the United Kingdom government declared a climate emergency in May 2019, not a single official statement, policy or resource has emerged from the Department for Education about how schools might respond. Petitions have been delivered, questions raised and protests held in the street outside. While children and young people walk out of school on a regular basis, eco-anxiety enters popular parlance and unions table radical motions calling for fundamental reform (National Education Union, 2019), school leaders are left to work out for themselves how to navigate what are complex and sensitive rising waters.

Italy's government is introducing a requirement that every student studies climate change for at least 33 hours a year. New Zealand's education system will include eco-anxiety in its curriculum. And Finland's education system, widely considered to be the best in the world, is in the process of adopting ecological best practice. Certainly, the scientific and social facts justify a wholesale rethink. The recent past has ceased to be a good guide to the chaotic world our students will negotiate as adults.

But there is no evidence that any such profound questions are being asked at the Department for Education and, even if they were, schools are rightly

under increasing public pressure to act immediately, before any such deliberations could bear fruit. What should they do?

In this article, I explain the guidance I have developed for school leaders through Leeds Climate Commission – delivered in training sessions attended primarily by head teachers, governors, school managers and other senior staff. Our approach takes its cue from research finding that people respond best when the message is honest and evidence-based on the scale of the challenge, and also positive about what can be achieved (McLoughlin et al, 2018). We have identified a range of significant issues that schools should take account of, and suggest that they can be addressed by taking action in five areas, guided by five principles.

Big Issues

The Climate Crisis Is an Educational Litmus Test

Climate change in the United Kingdom has thus far been assigned to the secondary geography and science national curricula, and changes introduced in 2007 and 2014 failed to recognise the far-reaching implications of the emerging climate crisis. In 2020, we are already in an unprecedented situation, in which significant minorities of students know far more about a specialist academic topic than their teachers. This interest does not derive from a passion for geography or science, but from a sense of existential insecurity. This has monumental – and rarely recognised – implications for educational establishments.

On the one hand, it must be acknowledged that such wider reading by students, if we can call it that, is motivated by some entirely correct understandings: that all of the warming in the last 75 years is caused by human behaviour (Intergovernmental Panel on Climate Change, 2018); that political responses aimed at changing that behaviour are woefully inadequate [1]; that we have a decade-long window within which to act in order to prevent unthinkably devastating consequences [2]; and that further warming is locked in, so that even in the best-case scenarios we can expect serious economic impacts, much worse extreme-weather events (Intergovernmental Panel on Climate Change, 2019), and therefore additional social and political turbulence on top of what already exists.

On the other hand, of major concern is the reliability of the sources that children are using to educate themselves in much of the detail. Both mainstream and social media provide poor routes to a sound understanding. Students who evince little concern are likely influenced (if at all) by the many mainstream and social media outlets which either actively deny the scientifically undeniable (for example, the *Daily Mail*/*Mail Online*) or are very reluctant to convey unsettling factual information in any detail (for example, BBC television or radio news). By contrast, students who are worried for their futures are vulnerable to what is sometimes called 'climate porn' – very widespread, alarmist, exaggerated or selective pseudoscientific clickbait that feeds on fear.

Educational institutions cannot avoid the fundamental issues much longer, because our primary function in society is to facilitate learning, and this entails demonstrating good understanding and interpretation of information from reliable sources. It is an issue of trust and it goes to the heart of our raison d'être. If we cannot tell a reliable source from an unreliable one and explain the difference; if we cannot use our own learning to respond to how the world is changing so profoundly; if we do not facilitate democratic dialogue and reflection around the many difficult choices every citizen faces – then students have every right to question what schools exist for. Banners asking 'What's the point of GCSEs on a dead planet?' only slightly hyperbolise the point.[3]

Carbon Footprints Measure How Much Schools Really Care

Imagine a school that finds creative ways to tackle the issues above, adapting the school curriculum, holding sustainability-themed days off the normal timetable, integrating climate issues into a PSHCE (Personal, Social, Health and Citizenship Education) and/or character curriculum that is more than just a tick-box exercise. It does all this, but the car park is still full, classrooms are still over- or under-heated, material resources are wasted and electricity is derived from fossil fuels.

Could a student at such a school believe that it has their best interests at heart?

Schools Are Key to Wider Social Challenges

To date, the United Kingdom's carbon reductions have not impinged on the way we live our daily lives – they have largely been achieved by phasing out coal in our electricity supply and outsourcing heavy industries. Ahead lie far more politically charged projects like decarbonising transport, home heating, land use and industry (Willis, 2019). Politicians who are ambitious in their climate targets are also understandably wary of political backlash, such as materialised in the 2000 lorry protest against the United Kingdom's fuel duty escalator, and in the more recent *gilets jaunes* protests in France.

As politicians increasingly gear up to these realities, they must reach far beyond the usual, often middle-class, suspects who push for more and faster decarbonisation, to bring the masses with them. And if this is the key to rapid decarbonisation for politicians, it is also a key for everyone who supports that goal.

Schools are a network of thousands of respected institutions that have ready access to people from every possible background, and can reach into homes on every street to influence social attitudes in the interests of ordinary people from a sound foundation of non-partisan information.

Of course, exactly how schools engage with specific political proposals raises thorny issues – ones which, in my experience, make local politicians all too cautious in their approaches. However, the humanitarian and scientific basis

for urgent action is ironclad, and schools may represent our best chance of keeping both democracy and life-supporting ecosystems intact.

The Climate Crisis Is a Looming Mental Health Crisis

Schools are already dealing with a mental health crisis, now exacerbated by COVID-19 measures, and climate change represents an unwelcome additional burden on young people. Sometimes, addressing misunderstandings (for example, the world will end in 2030) and pseudoscience (for example, 'climate porn' concepts like 'near-term human extinction') can provide relief, but very often the cause of distress is an all-too-accurate grasp of the reality.

In psychology circles, debates rage about nomenclature (Pre-traumatic stress disorder? Eco-anxiety?) as climate scientists, climate activists and now, increasingly, children are referred to specialists for help. A global trend has emerged of young adults saying that they do not want to have children. As a temporary political strategy (McLoughlin, 2019), this might perhaps be a potentially empowering choice, but it seems to me a more worrying sign when longer-lasting reasons are offered – because of the carbon footprint of a human life or because it seems unfair to bring a child into such a bleak world (Hunt, 2019; Keay, 2019).

In my experience, young people often feel freer to express sadness than anxiety, but the anxiety bubbles up unlabelled, in angry classroom debates about climate change or ill-judged rants at senior staff about YouthStrike4Climate policy. Sometimes, it is only from speaking to parents that the extent to which a student is affected by this burden becomes clear. Schools need to understand that anxiety is a normal psychological reaction to threatening information, and develop appropriate responses.

The Climate Crisis Is an Inequality Crisis

Globally and locally, the poorest members of society are the most vulnerable to the impacts of climate change. They are more likely to live in areas prone to flooding and less likely to be insured. They are less able to insulate their homes and therefore more vulnerable to cold snaps and heatwaves. They are more exposed to food price rises that result from poor global harvests, and less likely to have a healthy diet to start with. Inequalities accompany young people into school, where we often do our best to provide food, clothing, laundry services, support with applications and even employment.

One benefit of the mainstreaming of environmental concerns is that they can provide dignified cover for social issues. A not-for-profit education provider based in Leeds, Rethink Food, found that parents in disadvantaged areas would not take advantage of healthy food on sale at the school gates at knock-down prices – until it was promoted as eco-friendly. No longer the objects of others' pity, these parents were now the agents of positive change.

Schools Are Unprepared for Extreme Weather

For four days in August 2019, the high-temperature record for Paris was smashed by 1.9 ºC when temperatures reached 42.6 ºC. What if such an event happened on a school day 250 miles further north? Would head teachers know when a classroom is too hot to be safe? When the sun is too intense for outdoor activities? Would they know whether children are safer somewhere on-site or at home? Are they aware that asthma attacks increase in heatwaves? Do they understand that humid air is far more dangerous than arid? How many staff are trained to know how to treat someone suffering with heat shock? Given that we have no idea when such a heatwave might strike, only that it is increasingly likely, this is an imminent health and safety issue.

Schools generally have experience of cold snaps [4], but what about high winds, flooding and wildfires? In the short term, we can recognise the risks and prepare responses that safeguard the children in our care. In the longer term, we need to make our sites and buildings more resilient through low-impact measures.

School Staff Lack Confidence and Competence

In one of few significant surveys conducted, 75% of teachers said they have not had adequate training to educate students on climate change (Students Organising for Sustainability, 2019). They see it as an opportunity to engage students, as well as an unavoidable topic, but feel ill-equipped and vulnerable. Sixty-nine percent said that there should be more teaching about climate change (Students Organising for Sustainability, 2019). I have heard about science teachers telling children that climate change is a hoax, and physical education teachers telling them that civilisation cannot survive it. I have also witnessed stories like the latter used by academics on panels to argue that climate change should be kept in its science and geography boxes. I have never come across a classroom teacher making that case, because climate change has already burst out of the wineskin. The real world is not divided into the liberal arts; students bring their passions and concerns to all their lessons.

The Climate Emergency Is an Accountability Crisis

All of this requires a volte-face in how schools are accountable. In the absence of government advice, finance or training, or of any Ofsted (Office for Standards in Education, Children's Services and Skills) criteria, state schools may ignore the climate crisis and keep their funding. It is now dawning on many that there are other things they will not retain so easily, which are nonetheless necessary. Public relations suffer, parental support takes a hit and, most importantly, the good relationships between adults and young people, on which successful education is founded, are jeopardised when it becomes evident to the young people that the adults are only pretending to care about their future prospects.

This journal has long been at the vanguard of challenging the market model of education. The good news is that the climate emergency may finally see it off. Unless schools can recognise our direct moral accountability to the people we work with every day, regardless of the requirements of officials and quangos, we may lose the respect we rely on. Once lost, it is hard to see how it could be recovered quickly, as the consequences of failure would become the everyday experience of children, parents and grandparents for decades. When we start to question how and to whom we are accountable, a shift in values is under way.

Five Principles for School Responses

In order to design an action plan that makes a real difference, it is useful to think not only in terms of what needs to be done, but also in terms of how best to go about it.

Make Your Sustainability Drive Sustainable

Any school that is serious about addressing these huge and fundamental issues, as opposed to temporarily easing the pressure from students, parents and staff, will recognise the need to take the long view. The tortoise from Aesop's fable is not quite the metaphor needed in a climate emergency, given the need for significant emissions reductions straight away, so perhaps we might imagine a less hubristic hare that paces itself and beats the tortoise by a country mile. Appointing a governor to oversee sustainability and creating a permanent sustainability section in the annual school improvement plan are easily achievable ways to avoid climate flakiness.

Base School Responses on Robust Science

Given how far the views and demands of politicians, the media, protestors and the public can stray from the facts of the situation, it is essential for schools to stick to the straight and narrow of mainstream consensus science. Because of the rigorous process by which they are written, the United Nations reports on climate change [5] represent a state-of-the-art scientific consensus at the time of publication and cannot be bettered for authority and accuracy, even by the individual contributors to them. In terms of progress in the United Kingdom towards implementing changes commensurate with the implications of the United Nations reports and pacts, parliament reports to itself through the non-partisan Committee on Climate Change.[6] Its reports represent a good secondary source of information for schools, about policies and progress towards the United Kingdom's goals.

Involve Students and Staff

Staff and pupil/student attitudes inevitably vary, but most schools will find a source of goodwill and enthusiasm already available. Not only can this be tapped for time and energy to be channelled into sustainability projects, but it also helps those who are especially anxious with their stress. Encouraging students and staff to lead and deliver sustainability projects yields professional development and educational co-benefits too.

Communicate with Home

Communication with home provides opportunities to educate and empower parents and local communities, as well as signalling the school's science-based stance. A primary school in Cumbria recently trained Year 6 pupils on how to reduce energy bills and carbon emissions by switching energy suppliers. They were sent home with letters explaining the potential benefits and encouraging parents to go through the process with their children.

Apply Pressure Up

Finally, in response to YouthStrike4Climate and other future actions where schools become the conduit for protests aimed at government, schools can pass the message on in recognition of the seriousness of the situation and the justice of the cause. Being the only institution children can easily disrupt, schools are inevitably caught between a generation suffering existential angst and governments that are either struggling or failing to respond adequately. Each school must devise its own appropriate measures to safeguard students and promote attendance, but whatever shape these policies take, there is nothing to stop school leaders from heartily endorsing and amplifying reasonable messages to local, national and international political leaders.

Five Areas for Action

Without a grasp of the issues and principles outlined above, school actions are likely to be piecemeal, symbolic and short-lived (and mostly recycling). By ensuring that action is being taken in all five of these areas on an ongoing basis, guided by the principles above, schools can begin to respond meaningfully.

1. Decarbonising

Schools have sizeable carbon footprints. If schools as a whole take the United Kingdom's commitments under the Paris climate accords as a guide, their carbon footprints would need to be reduced from 2020 levels by 50% by 2025, 80% by 2030 and 95% by 2040. That may be more achievable than it sounds. Electricity accounts for about one-third of schools' carbon emissions on average. It can be totally decarbonised by installing solar panels, and organisations like

Solar for Schools [7] are making this financially and practically viable. Alternatively, when local council contracts for school electricity supplies are renegotiated, '100% renewable' tariffs are eminently achievable.

School heating systems last for decades, and most are gas-fired. Until these can be replaced by ground-source heat pumps or hydrogen systems, for example, efficiency gains from a combination of technology (for example, zoning heating so that only areas of school that are in use need to be heated, especially at weekends and during holidays) and culture change (for example, switching off projectors) can save schools thousands of pounds annually.[8] Funding sources include Salix [9] and the Carbon Trust's Green Business Fund.[10]

2. Well-being

Awareness-raising is needed to ensure that eco-anxiety is taken seriously. Strategies that can help are often the same as for other forms of stress: exercise, sleep, a healthy diet, someone who understands and mindfulness meditation. Being a method for unlearning false perceptions, cognitive behavioural therapy will not usually help.

It also needs to be recognised that the way curriculum content about climate change is delivered can affect well-being. It may be obvious that unnecessary doom-mongering takes a real toll, but unrealistic optimism can leave students who see through it feeling just as hopeless. The truth, bravely told and with an emphasis on the positive, is the most helpful content.

Crucially, the key stress-reliever is feeling empowered to take action. That can come through the school's curriculum, or through missing it to go on strike! Allowing students to lead and deliver sustainability improvements to the school site and systems also helps turn their psychological needs into educational opportunities.

3. Resilience

Schools need to produce extreme-weather emergency plans, but once again there is a dearth of support. In the absence of any national guidance, I am currently working with a researcher in this field to develop templates for such plans. For the time being, a common-sense approach based on very basic research would make students safer, rather than winging it in an extreme-weather event.

In the longer term, if our response to the increasing danger of, for instance, heatwaves is to install energy-intensive air conditioning, we may end up contributing further to the cause of the problem, so such awareness needs to be built into our planning from the start, and efforts directed towards low-carbon measures like passive heating systems, painting school rooves white, and increasing the number of trees and water features in school grounds.

4. Curriculum

The Leeds Development Education Centre consulted with climate scientists, teachers and parents in the development of a 'climate curriculum', which has attracted interest from across the globe. Designed as a description of what should be delivered within and through any given wider curriculum, it balances informing about and exploring the climate emergency with empowering pupils from Key Stages 1-4, whilst encouraging positive visions of possible futures. It contains 141 age-appropriate learning outcomes, a handful of which are already required in the national curriculum. They can be delivered across the full range of subjects in fun and imaginative ways. Many require sensitive handling; some, significant expertise. They are arranged under headings which seem self-evidently essential: scientific background; urgency of need for action; impacts of climate change; responses to climate change; possible futures; mindsets and viewpoints; feelings and behaviour. Up-to-date teaching resources are becoming available [11] to support the delivery of such a programme.

The Leeds Development Education Centre is working with local schools to pilot delivery of aspects of this curriculum, and everyone involved recognises the scale of the challenge. It is not to be rushed, but it can be started. As a parent thinking of my own children, I cannot identify anything in the learning outcomes that they do not deserve to know, explore or discuss before they leave compulsory education.

5. Staff Training

Teachers need training that equips them to deliver such outcomes sensitively and confidently, but services to meet this demand are lacking. The United Nations Climate Change Teacher Academy provided good-quality, free online training for hundreds of teachers in the United Kingdom. It had to temporarily withdraw its services due to levels of demand and is currently reconfiguring its offer. Some organisations like the Leeds Development Education Centre are starting to offer training but, for now, schools may need to organise their own training. One option might be to seek help from the council, nearby academic institutions or campaign groups like Friends of the Earth.

Beyond the delivery of lessons, site managers and bursars need training to re-evaluate the risks involved in installing solar panels or planting trees. Pastoral teams need to understand how anxiety might be a factor in mental health problems. Governors need support to understand why these issues are rising up the school agenda. And everyone needs to become carbon-literate so that energy emissions can be reduced, and bills with them.

Many of the actions schools can take in these five areas have only minor implications for workload and finances, leaving few excuses for making a start – especially where the goodwill of staff, pupils and parents can be harnessed and organised.

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This is an emergency, and what I have outlined here is not the radical rethink of the education system that is needed, but a crisis management guide for rapid implementation which may, by happy coincidence, fatally wound the market-based philosophy dominating state education. This emergency is a crisis of trust and relevance for schools as much as it is of funding and fuel. In this decade, we will either prioritise the emotional and educational needs of the young people whose lives are fated to be defined by adults' choices in that time frame or we will bring our profession into disrepute. The opportunities and benefits of acting responsibly are tremendous, and lead us in the direction of a more human, more democratic and, ultimately, more fulfilling kind of education.

Notes

[1] The United Kingdom is currently on track in 7 out of 24 indicators, and has failed to act on 24 of 25 actions recommended by the Committee on Climate Change (2019). Globally, investment in new fossil fuels is strong, emissions are still rising, and international commitments to emissions reductions fall short of what is needed to meet the Paris goals (United Nations Environment Programme, 2019).

[2] We are currently on track for around a 4 °C global average temperature rise by 2100 (Committee on Climate Change, 2019). The implications of 4 °C are very disturbing (New et al, 2011). To limit warming to the Paris recommendation of 'well below 2 °C' in order to avoid runaway climate change, total global emissions must be radically reduced this decade (Intergovernmental Panel on Climate Change, 2019).

[3] GCSE is the General Certificate of Secondary Education.

[4] Cold snaps, counterintuitively, are likely to be more intense in a warming world, though probably less frequent. In recent years, this has proved true due to the way weather patterns have stalled, staying for longer periods in the same geographical regions.

[5] All are available at https://www.ipcc.ch, including accessible executive summaries.

[6] All publications are available at https://www.theccc.org.uk, including excellent infographics.

[7] https://www.solarforschools.co.uk

[8] The Carbon Trust's (2011) research suggests that average annual secondary school savings in the United Kingdom could be over £20,000.

[9] For details, see https://www.salixfinance.co.uk

[10] For details, see https://www.carbontrust.com/our-projects/green-business-fund. Note that this funding *is* available to schools, which are an exception to the stated criteria.

[11] A good set of links to resources is available at https://www.campaigncc.org/schoolresources

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