

A conversation with young people about climate change and sustainability education in England: Ministerial policy briefing

1. Introduction

This briefing reports the findings of a *Ministerial Event: A conversation with young people about climate change and sustainability education in England*, that took place on 11th November, 2024 online. The overarching aim of the event, led by UCL Centre for Climate Change and Sustainability Education and Students Organising for Sustainability UK, was to provide an opportunity for Minister Morgan to meaningfully and openly engage with young people aged 13-21 to learn about their experiences of climate change and sustainability education (CCSE) in England, and to hear their hopes and suggestions for future change.

The event comprised two parts: in the first, Minister Morgan had a structured dialogue with four young people; in the second, participant young people explored experiences and aspirations for CCSE in four focus groups. Key areas explored across both parts include:

- Young people's experiences of effective CCSE;
- Opportunities and challenges for the new government in relation to CCSE;
- Impactful CCSE in schools; and
- Sustainability skills and green careers.

In total, 59 young people took part in the event, from across school and university contexts.

This report summarises key findings emerging from the event, before drawing together emerging recommendations for policy and practice.

2. Key Findings

2.1 Young people's experiences of effective CCSE

Participants were asked to describe their best or most impactful experience of climate change and sustainability education during their time at school. In response, they presented a range of examples drawing on experiences in both formal and non-formal educational contexts.

The most frequently referenced instances of effective CCSE were those experienced **outside the school context** and where students "*felt like [they] were making a difference*". This included charity kayaks, inspirational books, work experience (e.g. in a local zoo or primary school), and working with charities or other organisations related to climate change public participation:

“It was just so lovely to be surrounded by people who were just as passionate as yourself and people who care and people who are accepting of what you're interested in ... it was just so hopeful and optimistic and lovely.”

This also included participants experiencing first-hand the impacts of climate change, for example when visiting family abroad in countries which are suffering from increased temperatures.

Within the school context, participants highlighted examples of effective CCSE as including **engagement beyond the formal curriculum**; while this included examples, such as eco-clubs, these experiences were described as most impactful when students felt they resulted in meaningful discussion with senior school leaders and subsequent change. For example, one participant spoke of campaigning for CCSE to be in PSHE and assemblies.

Finally, participants drew on a limited range of **formal school experiences** as being effective. For example, one articulated the impact of linking work around estates to the taught curriculum as being impactful:

“People genuinely started talking about climate change education so much more [and] teachers would start using data. They'd take data from the ground source heat pump and they'd use that in their lessons, whether that's a maths, geography, science, whatever, they'd use that in some way.”

Another drew on the experience of a field trip with the impact persisting for many years:

“In year 8, which is so long ago now, we took a field trip to our local recycling plant which is kind of a weird one ... but I just remember how fascinating it was to understand all the intricacies of recycling. And I learned a lot of things about recycling and about, like, what ends up being recycled, what gets stuck in the machinery ... I ended up telling people around me ... I think that really changed my course and like how I view this”.

2.2 Opportunities for the government

Young people were asked what they thought the biggest opportunities for the new government were for climate change and sustainability education. In response, many participants articulated the opportunity of **developing the curriculum to include CCSE**; this included both integrating across the full curriculum, but also providing more examples of concrete solutions through it:

“A lot of my experience of climate education has been in a really abstract way talking about the science behind the greenhouse effect. Rather than doing that, relate it to concrete examples of how it's affecting the local area and what we can do within our local area... So yeah, I would say making it more personal.”

Students also identified opportunities to be both **acknowledging the urgency of the climate and nature crises**, and then supporting young people to develop the **emotional resilience** to overcome a generation of climate anxiety:

“There's a real opportunity to acknowledge this generation's unique relationship with the crisis. Unlike previous cohorts, students now have a really concrete idea the

climate crisis is not an emerging one it's current. And I think that kind of successful and innovative climate education not just acknowledges that, but centres it."

"We're all familiar with climate anxiety, but I think perhaps what's not yet happened is a real acknowledgement of how that may be beginning to affect students' lives kind of day to day".

"We term this era kind of the polycrisis. I don't know about you, but I think that's actually quite a distressing language to grow around. So the opportunity to integrate emotional resilience and coping mechanisms is really exciting".

Students suggested that in order to address this, schools need to support students to develop skills which will help them in the future. Students described solutions-oriented skills and experiences as the antidote to climate anxiety.

Finally, students referred explicitly to the **opportunities presented through the five missions stated as key priorities that shape the work of the government** (Labour, 2023). In particular, how quality CCSE can contribute to the opportunity (*breaking down barriers to opportunity at every stage, for every child, by reforming the childcare and education systems, raising standards everywhere, and preparing young people for work and life*) and net zero (*making Britain a clean energy superpower to create jobs, cut bills and boost energy security with zero-carbon electricity by 2030, accelerating to net zero*) missions, thereby driving forward progress to its broader work.

2.3 Challenges for the government

Students were asked to articulate what they thought the biggest challenges were for the new government in relation to CCSE. A wide range of responses were presented, encompassing school capacity, teacher expertise, government structures, and student engagement.

Many students described a concern around **teacher expertise**, suggesting that there is a lack of guidance and arguing the need for teacher training opportunities (*"professional upskilling and training"*):

"A lack of teacher confidence as a result of not having guidance ... because teachers don't necessarily know exactly ... quite how to weave climate change into the curriculum when they want to. Or maybe because they don't have the confidence to go beyond the national curriculum, they feel limited in how much they can ... do things around climate change and sustainability on their school grounds."

An additional concern was raised in relation to **finding time in the curriculum**, with a frustration that there is a focus on exam results, and a strict National Curriculum that does not afford teachers the opportunity for flexibility:

"It takes a very special type of teacher to want to put time aside to do things like that ... teachers are under a lot of pressure"

Some participants described challenges for the new government in relation to their need for **balancing CCSE with other priorities**:

“Climate change has to be balanced with the government's other priorities ... how can we make sure the discussion around climate change education is serving other aims like tackling inequality in education and ensuring that all young people are supported to make the most of opportunities”.

Government funding was also identified as a challenge by several participants, both in relation to teacher training, but also the cost of improving school buildings:

“The government sadly has a finite amount of money and a lot of things cost money, particularly on the building side. And also with teacher training ... it can be difficult for parts of government like the Department for Education to go to the Treasury, which is responsible for giving out money and ask them for money for things where there's ... no cash reward for it it's just about having young people that are better equipped and better skilled.”

Finally, participants raised a concern with disengagement by some young people, with some discussion (and frustration) about why this might be. For example, participants suggested some young people did not prioritise climate change and sustainability because they don't see it as directly affecting them, because there are too few positive role-models in business or government. In particular, they spoke of frustrations with previous government policy which served to disengage and/or demoralise young people:

“Major corporations, they want to reach net zero by the year 2030. But ... Britain, like as a whole like. ... in 2015 they said ‘we're gonna do this by 2025’, and now it's 2024 they think it's 2030. Who knows that by the time it's 2030, they're gonna say net zero by 2050. It's almost like they keep postponing the date.”

“Feeling powerless has led to significant apathy.”

Participants argued that this was often the result of a lack of awareness, either of the scale of the issue or the potential solutions, because of inadequate CCSE:

“There aren't enough lessons that give us awareness about climate change so people don't know where to start and all they need is just that starting idea.”

“Limited education about what will affect your life... You never really got shown these things or given real life examples in the UK, or even like our local areas. I think that maybe people didn't really feel that connection and such to it. It didn't really feel like it affected them as such.”

2.4 Impactful CCSE

Participants were asked to explore opportunities for impactful CCSE within the school context, with responses focusing around opportunities within the curriculum and opportunities for developing agency through local action.

Curriculum

While some students expressed a desire to have dedicated lessons to CCSE within the PSHE programme or CCSE assemblies, many articulated the importance of embedding across all subjects in the

curriculum, including broader areas such as climate justice, consumerism and biodiversity, and ensuring schools are accountable for this through the Ofsted framework.

“We should teach environmental justice in PHSE, teach carbon footprint calculations in maths/science, as well as showing the impact of green jobs in economics and business, showing us that there is a future within that sector. This would also emphasise the reality of climate change, teaching calculations especially would really influence student's decisions outside of school, so they can lower their carbon footprint.”

“We have these crossover lessons that would be an art and maths collaboration, and we got super excited for it because it was something slightly different but it would bring two things together and I think that this would be key to getting people interested.”

Through the curriculum, participants also expressed interest in hearing a wider range of case studies, which incorporated information about how climate change is affecting their local environment, as well as how they might take action:

“We talk about the global South. It's very rarely related to us here. So I think bringing it closer to home helps people care more, helps make climate change more, like education, more accessible, and helps get people inspired.”

Participants frequently described the importance of outdoor learning as part of the formal curriculum, both to support academic learning but also to improve wellbeing; examples included fieldwork, growing food in allotments, planting trees and farming bees.

“I think a lot more could be done in terms of like green spaces within like local communities like allotments and stuff because that's like it would be so easy to make it accessible to everyone. But it's just not accessible at the moment, but I think then people would feel like more connected to it sort of feel the need to like help more and become more like outspoken about it.”

Practical activities, through and beyond the curriculum, were seen as being more engaging, but also modelling activities that could then be done at home:

“I also think there should be an emphasis ... on the importance of clubs such as gardening, linking in to composting, because as far as I'm aware no state schools in my area offer clubs like this. This would teach more students skills which they could adapt at home and encourage their family to do. Even though it's small it could bring about a lot of change if it was implemented within schools as students will feel as though they have the power to do something.”

Other examples for inclusion within the formal curriculum were striking the balance between telling young people about the urgency of the situation without causing anxiety:

“We don't want to scare people because that's when. It becomes more of a topic that we want to avoid, but also we do need to sort of be like, you know, this is happening now. This is important. This is going to affect your future and I think it's finding the sort of middle ground.”

In addition, participants spoke of the importance of providing local, relevant examples of positive action:

“I would also think that this would help with you know, the amount of anxiety we have about climate change and that I know lots of younger students have as well because it feels so big and just like overhead looming. Bringing it back home and closer to our communities, I think would be really important.”

Local action

Participants also spoke extensively about the importance of providing opportunities for tangible local action through and beyond the curriculum. This included engaging with activities, such as eco-clubs or recycling, but also more strategic actions to develop students’ agency, such as co-developing climate action plans within school. They also suggested students should be given opportunities to engage with local and/or national policy-makers, including holding people in power to account, with the aim of developing students’ confidence in their ability to make a difference:

“People need to feel empowered and like they can actually make an impact.”

“I’ve worked with the school curriculum leads at my school and ensuring that climate education is taught better within the subjects there was really empowering for me. ... I’d want that to be the norm of people’s experiences and the education system and ensuring that school leaders are empowered to listen to students and to work with students to improve education.”

“I think there’s some there’s some research from the World Bank which said that education is the single strongest predictor for climate change awareness. But I think it sort of goes a bit beyond that, I think it becomes the children and students act when they feel empowered to do so ... I think we’re seeing more and more that students are aware, but when you’re empowered to act, that’s when the young people start believing that they can and that’s when we start seeing the real change in the schools.”

Participants also explored the **role of the school building** in supporting learning within CCSE. There was agreement that the school estate has huge potential for supporting learning; this includes opportunities for action, as described above, but also as a way of modelling sustainable practice. For example:

“It’s ... important to look at the actual environment that students are taught within ... schools provide an excellent way of modelling sustainable practices. The energy efficiency of the buildings itself, like the ground source heat pump in my college, having solar panels, using LED lighting, all these kind of things serve as daily examples of those sustainable practices to teach students about renewable energy, about energy conservation.”

“The school estate ... is the biggest public sector contributor to carbon emissions, so we have a real opportunity to kind of kill two birds with one stone and not only retrofit buildings to net zero in a way that saves on carbon emissions and produces climate change, but also ... turn it into a learning opportunity.”

“Yes, it’s heating the school. Yes, it’s providing energy. But how can we also then put that into the classroom? The use of green building materials models ... how it needs to be environmentally responsible and ... the impact of building choices that has on

natural resources. As we're growing up it allows us to continue making those decisions throughout our own lives, when we're buying our own houses."

2.5 Green jobs

Participants of focus groups were also asked to reflect on the nature of green jobs, given recent research has identified that only 31% felt that learning about climate change and sustainability education would lead to more job opportunities, while just 17% were interested in pursuing jobs related to climate change and sustainability (Walshe et al., 2024).

In response to being asked what they think green jobs are, many participants conveyed they were unsure, stating *"You're not really taught any of that"*. Others described jobs related to renewable energy, such as wind turbines; for example, *"We don't know anything about green jobs. I don't know anything, but I assume it's something to do with renewables?"*. Others spoke about improving the environment or conservation work, such as a marine biologist. A number of participants, however, understood the broader remit of green jobs as encompassing all jobs:

"In theory a green job is sort of any job that supports the transition to low carbon. So that could be anything. Like obviously renewables, but that could also be things like a climate mitigation lawyer or a doctor who thinks about decarbonizing their processes in terms of producing waste or anything like that. So it's broader than perhaps you imagined."

"Even if I'm a teacher and I do sustainability stuff within my school and with my students, I feel like that should still class as a green job".

Participants were then asked to consider why they think there is a lack of interest for green jobs among young people. A range of explanations were suggested, including the perception that green jobs would be poorly paid:

"I think you know, a lot of people say like, if they're paid well, then they'll do it. But if they don't, if it's not paid well, then what's the point? I mean, I think people will prioritise money over saving the environment."

Others suggested that the lack of interest was because it was not 'cool' to be interested in the environment:

"I nearly stopped doing it because the amount of mockery that I got and insults and everything. It was it was ridiculous. And you know, a lot of people, I think get put off by that. So even if they are interested, perhaps they hide it or they don't talk about it."

Finally, many participants simply suggested that young people don't know enough about what green jobs entail:

"Not really knowing about green jobs. We don't. We don't really learn about them in school."

3. Recommendations

There are three key recommendations emerging from perspectives presented by participants in the event.

3.1 Embed climate change in all subjects across the curriculum

The first recommendation is to embed climate change and sustainability across the full curriculum.

Within the discussion, participants articulated the importance of learning about climate change and sustainability within all schools subjects, in addition to a broader PSHE programme. They argued that this would allow full and proper consideration of the science of climate change, but also crucial topics, such as climate justice, consumerism, biodiversity and green jobs. Greater coverage across the curriculum would also allow for inclusion of a wider range of case studies of how climate change is affecting their local environment, as well as how they might take action, and would provide opportunities for practical activities within and beyond the school community, including those opportunities for outdoor learning.

This desire to learn about climate change and sustainability across the curriculum reflects previous research in which students stated they wanted to learn more about broader themes, such as the impacts of climate change on future people, the financial system, and human health and wellbeing, through a wider range of curricula subjects (Walshe et al., 2024). All school subjects offer avenues for students to gain valuable knowledge and skills that contribute to their understanding of and ability to respond to the climate and ecological crises (Greer et al., *in review*). While there are concepts that all young people need to understand in relation to climate change, such as the link between greenhouse gas emissions and climate change, exploring climate change and sustainability issues across all subjects provides multiple lenses to critically view and respond to the climate and ecological crises. Subjects typically associated with climate change and sustainability, such as science and geography, can be complemented by perspectives from subjects, such as history, mathematics and music.

An additional concern was raised in relation to **finding time in the curriculum**, with a frustration that there is a focus on exam results, and a strict National Curriculum that does not afford teachers the opportunity for flexibility:

*“It takes a very special type of teacher to want to put time aside to do things like that
... teachers are under a lot of pressure”*

A suggestion from students to resolve this tension was to consider how subjects can be taught through a *lens* of sustainability – rather than necessarily adding more content.

3.2 Provide opportunities for action.

The second recommendation is to foster a sense of agency for all students by building opportunities for action within and beyond the curriculum in school.

Participants shared examples of impactful CCSE which allowed them to take action in their local communities such that they felt they were able to make a difference, for example, engaging in environmental work with charities or work experience at a zoo. They further stressed the importance of CCSE which provides them with opportunities for tangible action through and beyond the curriculum; this included activities ranging from small-scale, local action, such as eco-clubs and recycling, to more strategic action, such as influencing sustainability policy within school or engaging with local and/or national policy-makers. Participants expressed the importance of this as empowering them to

demonstrate that they can make an impact; this both motivates to act again, but also reduces feelings of helplessness and anxiety.

This desire to engage in activities to ‘make a difference’ echoes previous research which found that participating in certain activities, such as helping families to be more sustainable at home, raising concerns about climate change, and undertaking projects within local communities, helped students to see that their actions make a difference. Activities that support students to gain awareness of what can be done, and understand that personal and collective actions can make a difference, have the potential to contribute to more positive emotions and more constructive responses to climate change (Ojala et al., 2021). Further, allowing students to take action has a positive impact on students’ self efficacy in other aspects of their lives, potentially leading to higher attendance, better engagement at school and greater academic performance. However, a recent survey of students aged 11-14-years-old found that although 60% of students agreed that their teachers explain how climate change and sustainability are relevant to them and what they can do to make decisions that are more sustainable, only 29% reported that they were able to influence how their school is responding to climate change and sustainability (Walshe et al., 2024).

3.3 Develop provision for green careers.

The third recommendation is to provide greater support for schools and teachers to develop green careers provision. This includes embedding an understanding of green careers across subjects and within educational opportunities beyond the formal curriculum.

Many participants in this event found it relatively difficult to articulate what a green job was, despite being engaged with issues of climate change and sustainability more broadly. This echoes previous research that suggests few young people would like to have a future job or career that will help reduce the impact of climate change (Walshe et al., 2024; Hamlyn et al., 2024; Sheldrake and Reiss, 2023). This potentially restricts aspirations for wide-ranging future careers in a context where the UK government has stated a commitment to reaching net zero in all sectors of the economy by 2050 (National Careers Service, n.d.).

Participants themselves stated the importance of schools in highlighting the diverse range of green careers beyond simply green energy or environmental activist. This would necessitate enhancing awareness (for students and families) around the nature and accessibility of green careers, ensuring equitable access to career support, and linking curriculum content to diverse career opportunities in sustainability across all subject disciplines (including through the Gatsby Benchmarks; Holman, 2014). This requires investment in professional development programmes to equip teachers with the knowledge and tools to integrate this effectively into their subject teaching, rather than treating it as an ‘add-on’.

3.4 Provide appropriate support for schools and teachers.

The fourth recommendation is to provide appropriate support for schools and teachers to develop CCSE, particularly professional development for teachers.

Participants recognised the challenges of developing a more holistic and embedded approach to CCSE, most commonly that of ensuring teachers were given appropriate support in the form of professional development. They particularly expressed a concern around teacher expertise, suggesting there is a need for professional development opportunities for all teachers to allow them to embed CCSE into their practice. Beyond this, they were of the opinion that CCSE should be embedded formally into both the National Curriculum and accountability structures, some suggesting that it should be incorporated into the Ofsted inspection framework to ensure that schools and teachers properly prioritised it within their practice.

These perspectives echo previous research has found that children and young people in England are currently heavily reliant on teachers choosing to make these topics a priority, rather than any requirement to do so; this has resulted in a gap between those schools and teachers who are engaged in these issues,

and those who are not (e.g. Greer et al., *in review*). This suggests fundamental changes are required to the professional frameworks for teachers and school leaders, including the core content framework (CCF) and early career framework (ECF), such that CCSE priorities are visible, valued and a part of the professional responsibilities for all. Examples of such approaches exist, for example, in Scotland, where Learning for Sustainability has been integral to the professional standards for teachers and school leaders for over a decade (Clarke & McPhie, 2016). However, this shift would also require a comprehensive, sustained and resourced spectrum of professional learning opportunities that are designed to support teachers, school leaders and the wider school community to enact school-based CCSE which addresses the concerns and needs of their communities, now and in the future.

4. References

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