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# From Climate Anxiety to Resilient Active Citizenship: when primary schools, parents and environmental groups work together to catalyse change

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**ABSTRACT** This article presents the perspectives and experiences of parents of primary school children who, as climate change activists, have been reflecting on the role of primary schools and actively engaging in their children's school by piloting a climate change action initiative in close collaboration with environmental organisations. At the intersection of primary education, climate change and active citizenship for social change, this article contributes to the following questions: What is the role of primary schools regarding the current climate emergency? How can primary schools contribute to building a generation of emotionally resilient, environmentally aware, proactive citizens? While the authors' professional backgrounds and work are not directly in education, they hope that reflections about active citizenship and social change can bring rich perspectives on the role of schools and formal education on climate change. The first section reflects on the unique role of primary schools regarding the current climate emergency. The second section discusses the authors' own experience of setting up a Climate Action Group of parents, school staff, teachers and pupils, and how they were able to support the school to put climate action at its core.

I want to stop climate change because it's not good for the planet and I like the planet. (Tyndale Climate Action Committee member, Year 1, six years old)

Primary children have the enthusiasm and knowledge for climate action. It just needs adult support to focus and channel that enthusiasm. (John Kirkland, climate lead teacher, Tyndale Community School)

## **What Is the Role of Primary Schools in the Current Climate Emergency?**<sup>[1]</sup>

Eco-anxiety is on the rise and is affecting children of all ages, including primary children.[2] Children are being increasingly exposed to potentially terrifying bits of information and language in the news and in the world at large (for example, ‘catastrophic climate change’, ‘extinction’) without being equipped with the skills to understand and process this information. Whilst fear and anxiety are a logical response to the scale of the problem, unnecessary additional stress from inaccurate, unclear or badly packaged information can be avoided. As the topic is not covered explicitly by the National Curriculum in England, the information children receive can be piecemeal at best and contradictory at worst, and access to safe and useful information relies largely on the ability, resources and understanding of the adults around them – both of climate change itself and of how to communicate the issue in an age-appropriate and non-scary way. Many children may lack the opportunity to ask questions about the issue and become anxious.

Fear is a natural response to the climate emergency. What is crucial is to allow children the opportunity to process their feelings and take action in response. Research (Ojala, 2018) has shown that fear, in combination with the lack of a clear pathway to effective action, is more likely to increase anxiety and feelings of powerlessness, and contribute to inaction around the climate. Children who are worried about climate change can be lacking both a clear understanding of the scientific facts and what they can do to reduce it. A pupil from Tyndale Community School in Oxford, UK asked the school’s Climate Action Group: ‘Why do I have to live in a time like this with climate change? How can I help the planet and change the situation?’

Children need to become the resilient and empowered adults of tomorrow. As well as a moral obligation to be open about the climate crisis, adults have a responsibility to equip the next generation with the emotional and practical skills to enable resilience in a time of crisis, and to effectively address the rise of eco-anxiety amongst young people.

### *The Role of Primary Schools in Climate Education*

We were going to go in the car, but I realised the car has gases that are bad for the environment, so I said, ‘Why don’t we go on a bike?’ and then we went on a bike and it was much more fun. (Year 4 pupil, eight years old)

There are potentially huge untapped benefits to acting through primary schools. Through school, children can learn and develop new knowledge, skills, behaviours, attitudes and practices around climate action and citizenship. By empowering children on climate action, schools can contribute to building a generation of emotionally resilient, environmentally aware, proactive citizens.

Primary schools have the potential to reach and equip all pupils, regardless of socio-economic status, background, ethnicity or level of family awareness, on climate change issues, thus contributing to a more inclusive climate movement that leaves no one behind. Primary schools offer the potential to reach beyond the usual ‘green bubble’ (Watts, 2019) – reached by environmental and climate change organisations – to encourage participation from a broader cross section of society, which is key to reaching diverse populations and may contribute to more inclusive climate initiatives and movements.

Moreover, primary schools are uniquely placed to influence not just pupils, but also their families and the wider community. As demonstrated by the climate strike movement and recent research (Lawson et al, 2019), children have a strong influence over the opinions of their parents and society when it comes to climate change. Child-to-parent intergenerational learning, where the child shares knowledge on behaviour changes with their significant adults, can bring about changes in attitudes towards climate concerns.

Finally, in parallel with the integration of climate change learning in their educational programmes, schools can access many existing programmes that will support them to improve their environmental and carbon footprint [3], with many additional benefits, including expected financial savings. By doing this, schools can become a ‘living model’ and inspire children, families and communities. For all these reasons, primary schools occupy a distinctive place of influence and have the potential to offer an unparalleled pathway to diverse social groups.

*Typical Challenges Faced by Schools  
When Teaching about the Climate Emergency*

Change is difficult. A school is like a giant tanker to turn, in terms of things changing. The vast majority of staff in a school are thinking week to week, if not day to day, and often rely on the routines and the rhythms of a school year. This does mean finding the people/time who can make a positive change, rather than just doing ‘what we always do’ for that event/time of year, etc. [It] is a challenge. (Oxford primary school teacher)

If we take the Oxfordshire example, many schools have Forest School [4] and participate in the Eco-Schools [5] programme and similar ecologically focused programmes. Some have developed cutting-edge action-based programmes to tackle specific facets of the climate issue or associated environmental challenges (for example, work around transport and air pollution). Many are keen for input from external organisations, as seen from the frequent requests to environmental organisations for expert guidance and input, in the form of lesson plans, resources, talks, assemblies and activities. But while there are examples of good practice of school-based action on climate change, often schools lack the

confidence, resources, knowledge and time to do it, as well as to invest in reducing their own carbon footprint.

With climate change missing from the National Curriculum, schools' competing priorities and extreme pressure to deliver, as well as a formal education system in the United Kingdom that is increasingly affected by austerity, there is no guarantee that schools can allocate time to include climate change in their teaching:

YouGov research commissioned by Oxfam in June 2019 found that more than two thirds of the UK teachers polled thought that there should be more teaching about the climate crisis in UK schools, while three quarters did not feel they had received adequate training to educate young people about climate change. (Taylor, 2019)

Around 40% of the UK teachers polled by Schoolzone in June 2019 thought that their school could do more to encourage awareness of climate change issues (see also Oxfam, 2020, p. 3). As several of the teachers we have interviewed pointed out, if climate change and biodiversity loss were included in the compulsory curriculum, teachers would make more time for it, and publishers would produce age-appropriate materials on it. They would be able to build on lesson plans taught year-on-year, rather than providing one-off lessons on the topic.

Our experience shows that whether a teacher or school engages in climate action is very much down to the interests of the individuals involved. Behind most successful initiatives in schools, we often find one (or a few) passionate teacher(s) and/or head teachers who are going the extra mile to transmit their environmental passion to children. Integral to the success of climate initiatives in schools is whether a teacher or head teacher is fully engaged with them. A reflection from one teacher, dedicated to sensitively teaching about the climate emergency, was that 'for effective change across the school, the head or senior management need to be on board'.

Even when teachers are interested and prioritise this area of learning, schools lack sufficient financial resources and support to allow them to spend time on non-core activities. For example, in one school, staff were unable to attend a day's training to enable the school to qualify for an audit, as they did not have the budget to cover the £200 substitute teacher. Teachers are frequently time-poor and lack the additional capacity to identify and create good resources themselves or to access some of the resources and initiatives that are offered by diverse stakeholders, such as councils or environmental organisations. Because of all this, often the initiatives that schools run on climate are one-off activities or events, and lack a holistic vision and planning to ensure effective learning happens, as well as changes in behaviours and attitudes.

Moreover, opportunities to link what a school is offering on environmental and climate change learning to the school's strategy for reducing its own impact and carbon footprint can be missed. As one staff member

explained, schools are not run primarily as businesses, so there is perhaps less focus on long-term financial planning, and investing in a more environmentally friendly infrastructure (like solar panels) is not always explored as a long-term cost-saving option. Also, the initial outlay is significant, and schools do not have the savings to cover this.

While there is an increased appetite for action on climate change, schools often need external support to further integrate climate change in their learning and educational programmes, reduce their carbon footprint, and influence their pupils and wider communities. Future changes in the education curriculum are key and are urgently needed to consolidate the work that some schools are already doing, and for climate action to become an integral part of all primary schools' education offer.

### **Tyndale School Climate Action Group: when schools, parents and environmental groups come together**

Advocacy for changes to the National Curriculum and for additional resources for schools is key and must continue. In the meantime, there is a multitude of civil society organisations that offer creative resources, programmes and initiatives to help schools integrate climate change in the current curriculum and reduce their carbon footprint.[6] Moreover, there are amazing opportunities for innovative collective action between primary schools, parents/carers, and environmental and climate change organisations. In this section, we will present some of the rationales, as well as the learning from the work we have been doing in Tyndale Community School in Oxford since May 2019, which we aim to pilot in other schools and scale up through a partnership with local environmental groups.

#### *Tyndale Community School Climate Action Group*

The Tyndale Climate Action Group was established in May 2019 when a group of parents interested in climate change approached Tyndale Community School's head teacher with a proposal to support the school to integrate thinking on climate change and the environment in its education programme and school infrastructure.

The group brings together parents/carers, school staff and teachers, and pupils. It works through a steering committee composed of three parents and three teachers/school staff, who work with a pupil-led Climate Action Committee, composed of 22 children representatives of each year group. The group coordinates its work closely with the head teacher, all school staff and teachers, and around 30 parent volunteers.

The Tyndale Climate Action Group's mission is twofold: (1) to increase knowledge and awareness of climate change issues and encourage resilient and active citizenship both in pupils and their families through learning opportunities and a focus on positive actions and (2) to improve the school's

environment and carbon footprint for the school to become a living model for children and the broader community.

The Climate Action Group developed, through a participatory process, a Climate Change Action Plan around these two interrelated pillars. The Action Plan aims to create a holistic, integrated learning and mobilisation base for pupils and their families. Over the last year, through different projects and partnerships [7], a series of learning and awareness-raising activities and community actions has been implemented. In parallel, the Climate Action Group is carrying out an audit to transform the school's organisational practices and operations in order to reduce its carbon footprint.

Throughout this process, the group faced the same challenges recognisable to many schools (as described above), but our time as volunteers, alongside the strong motivation and willingness of a few key teachers and the support of environmental organisations, catalysed important changes in the school that just one year ago would have been unthinkable. We will now present some of our thinking, our theory of change, approach, lessons learned and key ingredients for replicability and scale-up.

### *Key Elements of Our Theory of Change and Approach to Implement Our Two-Pillar Plan*

1. *The strength of innovative partnerships between schools, parents/carers and environmental organisations to build a climate movement.* Our theory of change is that primary schools can work in partnership with parents/carers, the community and environmental organisations to participate in a broader movement of change, mobilising children, their families, school staff and local communities around climate action. One of our drivers for action is that schools can reach a very wide cross section of our society – including those outside the 'green bubble' (Watts, 2019) – and raise awareness and contribute to change behaviours, attitudes, practices and social norms.

Our first assumption is that Climate Action Groups, composed of parents/carers, school staff, teachers and pupils in primary schools, can be a catalyst for change in schools. By actively engaging parents and carers, Climate Action Groups can mobilise greater resources for action in schools (for example, volunteer time, fundraising, specific expertise and networks) and achieve greater impact. In our school, we saw enthusiastic support for the initiative from many parents – in particular, from those already actively involved in the school as volunteers, as well as those among the most aware and active in environmental and climate issues. Concretely, this enthusiasm translated into 5-10% of the parents/carers offering to volunteer in the school's climate initiative, as well as a much greater number of parents wanting their children to be a representative in the pupil-led Climate Action Committee than the 22 children we could accept. While we appreciate the fact that our school is not representative of all schools and that most interested parents who tend to volunteer in climate initiatives come from very specific backgrounds, we believe that this type of collaboration

between parents/carers and the school is something worth exploring in other schools and can be a key ingredient, in the current context, for the greater role and impact of primary schools in climate action.

Our second assumption is that building successful partnerships between primary schools' Climate Action Groups and environmental organisations is key for the quality, scope and scale of the climate work schools can do. Through partnership-building with other local schools and environmental groups, expertise can be gained through knowledge-sharing to prevent the duplication of activities that fall flat and replicate those that have been successful. The first and most common step of schools' collaboration with environmental organisations is through accessing their resources and expertise, and/or implementing their climate initiatives and programmes in the school (for example, when a school participates in the Eco-Schools programmes). Our Climate Action Group took a step further and reached out to and joined networks of local organisations, seeking to contribute to co-create resources and collective action. One example is our joint work with the Kids Climate Action Network, Community Action Groups Oxfordshire and a coalition of six other organisations to design the climate project 'Oxfordshire People Acting on the Climate Emergency', in which we co-led the design of a primary schools working package. This experience showed how a school can be a valued member of the environmental and climate movement, and has the potential to co-create initiatives that fully untap the potential contribution that primary schools can make in the current climate emergency for individual and systemic change, as well as climate-movement-building.

*2. Educating for 'climate active citizenship'.* Central to our approach is the concept of 'educating for climate active citizenship'. This is about equipping primary children with the knowledge, understanding, values, attitudes and skills they need to be resilient and active citizens for climate action and for a just and sustainable world.

It is about the school creating a safe space for pupils to explore – in an age-appropriate manner – the complexity of the climate emergency, helping children make sense of it, and developing understanding and critical thinking while managing potential anxiety and fears. Equipping young people with scientific facts and understanding is important but, in 'learning by doing' their own climate-positive activities both within and outside the school day, pupils will feel empowered to make a positive impact on their local and the global environment and become a new generation of emotionally resilient, environmentally aware, proactive citizens. By complimenting and enriching their education with a focus on practical actions, our intention is to promote real changes in attitudes, behaviours, values and practices at an individual level and, more broadly, at the family, school and community levels.

We see the value of using a Learn–Think–Act approach – inspired by Oxfam's (2015, 2019) Global Citizenship Education model – because of its

explicit recognition of the relationship between understanding, reflection and action. Such an approach includes,

alongside a rigorous development of knowledge and understanding of [climate change issues] ... opportunities for young people to foster new skills, think critically, and act and reflect effectively as agents of change. It also enables learners to explore, develop and express their own values and opinions, while listening respectfully to others' viewpoints. (Oxfam, 2019, p. 9)

As fear is a natural response to the climate emergency, we propose to add a fourth element to the Learn–Think–Act framework, recognising the importance of safeguarding children's mental health and the fact that many feel disempowered, pessimistic or anxious regarding the climate crisis. We call it 'Develop Resilience and Promote Constructive Hope' (see Figure1).

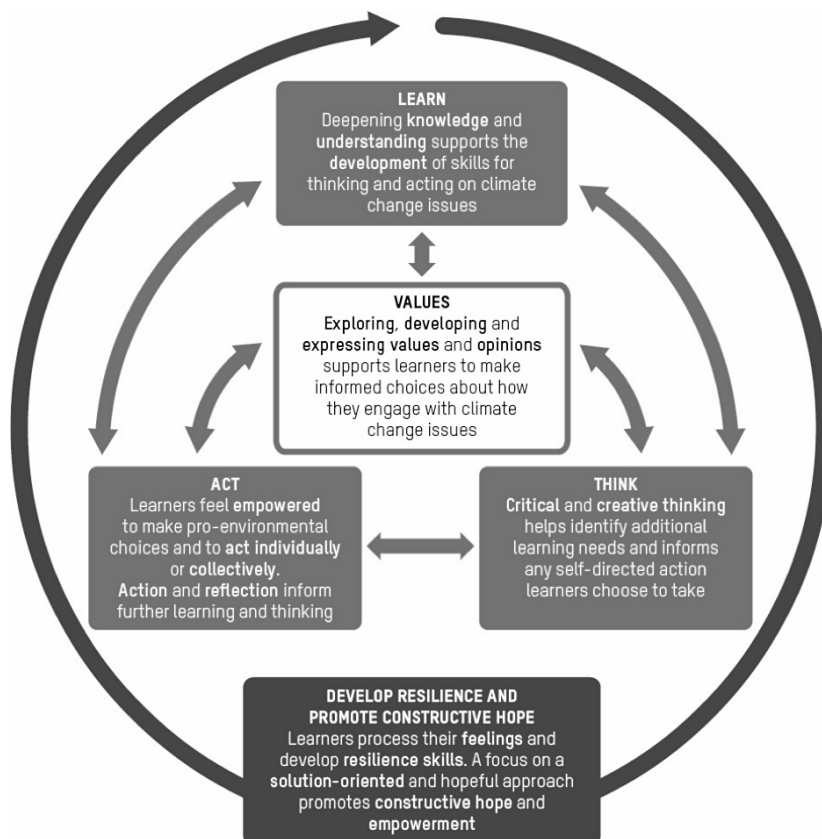


Figure 1: Learn–Think–Act–Resilience–Hope framework for climate change. Adapted from Oxfam's (2019, p. 9) Learn–Think–Act framework for the Sustainable Development Goals.



Children need to be given the opportunity to process their feelings, bring them into awareness and develop resilience skills. For that, ‘adults need to listen to young people, to not be afraid of young people’s worries and to help them express their emotions articulately. Talking about climate change in a supportive and solution-oriented way is vital’. Therefore, the school’s work with children needs to ‘promote constructive hope and empowerment’ (Ojala, 2018). This is crucial to promote well-being and equip the next generation with the emotional and practical skills to enable resilience in a time of climate crisis.

The idea of ‘active citizenship education’ is based on the belief that each individual has the power to make a difference, and this is why the concepts of agency and power to act – and change the world – are central.[8] It provides a chance for children to reflect on their roles and responsibilities regarding climate change issues individually, locally within their communities and globally within an interdependent world.

We see the ‘resilient active climate citizen’ [9] as someone who:

- is aware – in an age-appropriate manner – of climate change and its implications locally and globally;
- feels better equipped with resilience skills to manage fears and anxiety;
- is passionately committed to the environment, climate action and social justice;
- has a sense of their own role as a world citizen and of the power of collective action for change;
- participates in the community at a range of levels, from the local to global;
- works with others to make the world a more equitable and sustainable place;
- takes responsibility for their actions; and
- respects and values diversity.

Moreover, the learning approach is based on the following additional principles:

- Children should be trusted with information, and the information provided should be clear and age-appropriate. In line with current guidance from those with psychology and child development expertise (McAndrews, 2018), we need to provide clear, easy-to-grasp information about climate change in a non-scare-mongering way which is age-appropriate and enables children to understand the situation.
- Children are not a homogeneous group (with regard to age, gender, race or class, for example) and they relate to the climate issue in diverse ways in terms of their thoughts and approaches to climate change. For instance, girls and boys can have different reactions and coping strategies regarding the climate emergency (Ojala, 2018). A gender-sensitive and intersectional approach is key to analysing those differences and informing the climate education approach in the school.[10]
- Climate actions should be, as much as possible, pupil-led, promoting consistent, high-quality pupil participation practices in all phases, from

design, implementation and monitoring to evaluation.[11] Sociologist Roger Hart's (1997) ladder of child participation is a useful tool to support meaningful levels of children's participation in climate actions in a primary school context.

- For the best results, climate activities include a combination of school-based and home-based activities, which means that action needs school-home collaboration, where parents/carers play a key role in the continuation of learning, thinking and actions. Actions need to be suitable for previously engaged children and families, and also an easy and accessible entry point to those not already involved in action, recognising that there are different journeys and trajectories, and that all small changes should be valued.
- The importance of linking local realities with a global perspective to climate change, given the disparity of impacts already occurring across the world and the fact that 'we live in an increasingly globalised and interconnected world in which the global is part of our everyday lives, and analysis of seemingly local issues benefits from global perspectives' (Oxfam, 2015, p. 6).
- The importance of guiding our work with a clear vision of 'how change happens' and the fact that changes at individual and family levels (for example, in knowledge, attitudes, behaviour or practices) can only go part of the way to cut emissions. Alongside changes at an individual level, the climate emergency urgently needs changes at the systemic level, which means changes in social norms as well as in policies, laws and institutions. This includes, among other things, big structural shifts in the economy and industry. Our 'Learn-Think-Act-Resilience-Hope' approach needs to be informed by this vision of 'how change happens'. Most importantly, we need to promote the right balance between what can be done at the individual level and what collective engagement can do. A key principle is that we do not put a heavy burden on a child's shoulders by focusing first and foremost on what the individual can do. Based on the finding that 'collective engagement on environmental issues is related to hope and wellbeing' (Ojala, 2018), the central focus should be on collective engagement and collective global action.

*3. The importance of linking learning activities to concrete actions in the school to reduce the carbon footprint.* Schools need to embody the change we are working towards. In alignment with our 'Learn-Think-Act' approach, schools have an opportunity to model best practice and reinforce the learning-by-doing approach. By looking at their own practices, operations and ways of working with the aim of improving their environmental and carbon footprint, schools act as models for children, their families and communities. Moreover, including and demonstrating schoolwide positive actions to help mitigate the climate impact of the school will go some way to creating a sense of hope, rather than despair or eco-anxiety, amongst young people (Ojala, 2018).

From this perspective, action in schools should be holistic and coordinated, and link climate active citizenship educational work with plans

which account for and mitigate the school's direct environmental impact and carbon footprint. Very concretely, this can be done through the school partnering with different organisations (for example, councils or environmental organisations) to carry out audits to assess the environmental footprint of their premises and everyday activities, and prioritising and implementing alternative actions – some of which will bring important savings in the future.

*Learning from Our Experience: key ingredients for success and reflections on the replicability and sustainability of the actions*

Our ambition is bigger than we can achieve given our very limited resources (for example, in terms of time and budget), but we were able, as a Climate Action Group, to do much more than expected in a short time frame, and start transforming the identity of the school to one where environmental and climate action is central to its work. Our learning shows that the key ingredients for success are:

- The pupils' motivation and enthusiasm, with more children signing up to the pupil-led climate committee than was feasible to manage.
- Building a successful partnership between the school and parents/carers, which values their roles and is built on trust and autonomy for action. Our motivation as parents was supported by the sense of freedom afforded us by the school to propose and co-lead on actions, and that we brought a clear value in supporting the teachers' activities.
- Support for the initiative from the school leadership team, and their selecting and delegating of roles to the most climate-motivated teachers and school staff, empowering them to implement the initiative with parents.
- Amazing, enthusiastic teachers who are extremely motivated and have given their personal time to advance the initiative.
- Tyndale Community School's embedded core values – creativity, responsibility, respect and resilience – lend themselves well to the climate initiative. They provide a framework through which to teach the climate work. The fact that the children are already aware of them means that they understand the power of these values, which reinforce the idea that pupils can have a positive impact in school, in their families and in the community.
- The school's organisational culture, which values parents' involvement and initiatives.
- The willingness and availability of a few parents who are climate activists and want to invest their time to make a difference in their children's primary school, bringing hundreds of hours of time and diverse technical skills in relation to the environment, social change and fundraising finance, for example.
- Collectively taking the time to collaborate on and develop a common vision for change, and producing a Climate Action Plan for the school, with clear roles and responsibilities – which was also key to contributing to the group's sense of autonomy, agility and capacity to act.

- An action plan that is based on a clear vision of how change happens for climate change and the role that schools can play, as well as being aware of and sensitive to the limitations and challenges schools face, and trying to factor in support to mitigate the obstacles.
- The decision to base as much as possible on and add value to other existing programmes, resources and tools already being implemented in schools (for example, those led by Oxfordshire County Council and Eco-Schools, and energy audits offered by various organisations), which enabled us to make progress quickly.
- Close collaboration with environmental and climate organisations such as Kids Climate Action Network, which have been developing thinking and tools to work with primary schools, sharing their knowledge and experience.

Based on the initial successes of the initiative and lessons learned, the school's Climate Action Group joined a newly created coalition of environmental organisations in Oxfordshire that see the value of working in and through primary schools to raise awareness and mobilise children and their families. Together, we developed a project proposal to mobilise further resources for our school's initiative and to pilot and scale up the initiative in several schools in Oxfordshire. While the funding is still to be confirmed, this project would bring the enabling conditions to pursue and sustain this work, so that this initiative does not solely depend on the willingness, motivation and availability of a few teachers and volunteer parents.

### **Conclusion**

For the conclusion, we would like to bring the voices and wisdom of Tyndale Community School's pupils:

The role of schools on climate change is to tell the children – who are the next future people – to look after it, because if you just don't tell it, when they will be older they will make it worse and worse ... And the people that will make a change when they are older have to know and make a change. If not, they will decide to do nothing and it will carry on ... Kids are the future adults and adults are the ones that can really change things – kids don't have voting and 'a say' too much – so when we are going to be adults we have to know it ... As a kid, we can still do things, you can do your part as a child, but when you are an adult, you can do pretty much everything, but if you are not taught about it, you will just be horrible like the last centuries. (Year 4 pupil, nine years old)

I want my school to be proud and say 'We are an eco-school!' And I would like that all schools will be an eco-school to be an inspiration to the world ... I want everyone and all schools to do it [climate education] and then it becomes just something we do ... Like

training a dog to sit, after he knows it, we just say the word 'sit' and he sits! So, we would like it to be in our minds, for instance, when we recycle an object like plastic, it will be in our minds ... We would know exactly what we need to do. (Year 4 pupil, nine years old)

We want to learn about climate change and tell our mothers and fathers and then they can tell their friends and then so on. (Year 1 pupil, six years old)

We all need to do our part to help the planet ... and say thank you to the planet. There is no planet B. (Year 4 pupil, nine years old)

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### **Notes**

- [1] The first section of this article draws extensively on a project proposal we co-wrote with Mim Saxl in 2020, and on her ongoing interest in eco-anxiety, and the safe and empowering communication of the climate crisis to children.
- [2] BBC Newsround (2020) conducted a survey of 2000 8-16-year-olds. Seventy-three percent reported to be worried about the state of the planet right now, including 22% who were 'very worried'.
- [3] Resources for improving the carbon footprint of school buildings include, among others, the Environmental Information Exchange at Oxford Brookes University (<https://www.brookes.ac.uk/eie/>); Less CO<sub>2</sub>

(<http://www.lessco2.org.uk/>); and Solar for Schools (<https://www.solarforschools.co.uk/>).

- [4] <https://www.forestschoolassociation.org/>
- [5] <https://www.eco-schools.org.uk/primary-pathway/seven-steps/>
- [6] A few examples are Eco-Schools (<https://www.eco-schools.org.uk/>); Transform Our World (<https://www.transform-our-world.org/programmes>); Kids Climate Action Network (<http://kidsclimateaction.org/>); Greenpeace (<https://www.greenpeace.org.uk>); Friends of the Earth (<https://friendsoftheearth.uk/>); Low Carbon West Oxford (<https://www.lowcarbonwestoxford.org.uk/>); Oxfam Climate Challenge (<https://www.oxfam.org.uk/education/resources/climate-challenge-7-11>) and Oxfam's (2020) *Making Sense of the Climate Emergency*; and universities such as the University of Oxford.
- [7] For example, Kids Climate Action Network, Eco-Schools, the Oxford Hub, Oxford Brookes University and the Oxford Food Bank.
- [8] Very useful for this work are the alternative inclusive forms of power that scholars and practitioners use in development and social change: power with (collective power), power to (agency) and power within (empowerment). All these are key to the ability to act and change the world (JASS, 2013).
- [9] This definition was adapted for 'climate' by the authors using Oxfam's (2015) 'global citizen' definition.
- [10] Gender relates to the characteristics and roles that societies attribute to the notions of 'masculine' and 'feminine'. We learn gender roles through socialisation, which begins very early and is reinforced constantly throughout our lives by education, the media, families, religion, public policy and other social institutions. Gender roles vary in different cultures and can change over time (JASS, 2013, p. 5). Intersectionality is an analytical tool that helps us to understand and respond to the ways in which multiple aspects of each person's social identity and status (for example, age, gender, class, race) intersect to create unique experiences of oppression and privilege (JASS, 2013, p. 9).
- [11] 'Participation is about having the opportunity to express a view, influencing decision-making and achieving change. Children's participation is an informed and willing involvement of all children, including the most marginalised and those of different ages and abilities, in any matter concerning them either directly or indirectly. Children's participation is a way of working and an essential principle that cuts across all programmes and takes place in all arenas – from homes to government, from local to international levels' (Save the Children, 2005, p. 4).

## References

- BBC Newsround (2020) Climate Anxiety: survey for BBC Newsround shows children losing sleep over climate change and the environment, 3 March. <https://www.bbc.co.uk/newsround/51451737> (accessed 18 May 2020).

- Hart, R.A. (1997) *Children's Participation: the theory and practice of involving young citizens in community development and environmental care*. London: Routledge.
- JASS (2013) Feminist Movement Builder's Dictionary.  
<https://www.justassociates.org/en/resources/feminist-movement-builders-dictionary>  
 (accessed 21 May 2020).
- Lawson, D.F., Stevenson, K.T., Peterson, M.N., et al (2019) Children Can Foster Climate Change Concern among Their Parents, *Nature Climate Change*, 9, 458-462.  
<https://doi.org/10.1038/s41558-019-0463-3>
- McAndrews, J. (2018) Supporting Children in the Face of Climate Change, *YouTube*, 29 November.  
[https://www.youtube.com/watch?v=2bm18\\_G4n2Y](https://www.youtube.com/watch?v=2bm18_G4n2Y) (accessed 28 May 2020).
- Ojala, M. (2018) Eco-anxiety, *RSA Journal*, 164(4), 10-15.  
<https://doi.org/10.5539/jmr.v10n6p15>
- Oxfam (2015) *Education for Global Citizenship: a guide for schools*. Oxford: Oxfam Education. <https://www.oxfam.org.uk/education/resources/education-for-global-citizenship-a-guide-for-schools> (accessed 21 May 2020).
- Oxfam (2019) *The Sustainable Development Goals: a guide for teachers*. Oxford: Oxfam Education. <https://www.oxfam.org.uk/education/resources/the-sustainable-development-goals> (accessed 21 May 2020).
- Oxfam (2020) *Making Sense of the Climate Emergency: exploring values, thoughts, feelings and actions*. Oxford: Oxfam Education.  
<https://oxfamilibrary.openrepository.com/handle/10546/620966> (accessed 21 May 2020).
- Save the Children (2005) Practice Standards in Children Participation.  
<https://resourcecentre.savethechildren.net> (accessed 21 May 2020).
- Schoolzone (2019) How Should Schools Respond to Strikes for Climate Change?  
<http://www.schoolzone.co.uk/downloads/files/1559647790.pdf>
- Taylor, M. (2019) Teachers Want Climate Crisis Training, Poll Shows, *Guardian*, 21 June. <https://www.theguardian.com/environment/2019/jun/21/teachers-want-climate-crisis-training-poll-shows>
- Watts, E. (2019) Reaching Kids outside the 'Green Bubble'.  
<http://kidsclimateaction.org/2019/10/14/downloadable-case-study-reaching-kids-outside-the-green-bubble-by-rose-hill-and-iffley-low-carbon-rhlc/> (accessed 19 May 2020).

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