

Heartwood

Voices from environmental
education: *Academic research
meets head, heart and hands*

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Foreword

BY JOHN OWENS

As we know, the world is facing a profound environmental crisis that incorporates the dramatic loss of biodiversity, accelerating climate breakdown and rising social inequalities. The ramifications of this crisis have the potential to be catastrophic for human societies and the natural world, with consequences from the local to the truly global.

How should education respond? Educational practice, like the systems and societies it is situated within, often exists in a state of ambiguity in relation to the unfolding environmental crisis. We have never had greater knowledge of the crisis, its causes, effects, and the forms of mitigation available to us. Yet, despite soaring rhetoric and lofty ambitions, a culture of 'business-as-usual' remains pervasive, with sustained attention and action in short supply. This raises significant questions: In what ways is our education system capable of meeting the challenges posed by the environmental crisis? What are the limitations and possibilities for education in responding to the crisis? What might students, educators and institutions do to rise to the challenge, and what would be needed to support them in doing so?

This important essay collection responds by drawing together perspectives from students and staff at the forefront of contemporary environmental education practice, pedagogy and research. Produced by members of the community of the MA in STEM Education at King's College London, it provides insights and reflections from scholars, students and educators which are empirically grounded and theoretically informed. Moreover, it does so in a creative, curious and highly engaging manner that embodies the ethos and pedagogical dynamics of the programme. Indeed, my own experience as an occasional



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contributor to the programme's *Environmental Education: Sustainability and Society* module was of a student-led discussion so rich and grounded in personal experiences and professional concerns that the slides and session plan I had brought with me went out the window. Our setting for this session in the Holland Park Ecology Centre, surrounded by taxidermied woodland animals and en route to our own participation in one of the Centre's Forest School sessions, reinforced the programme's novel and inspiring approach to promoting and practising environmental education. This collection provides readers with a means of sharing in the approach and culture of this programme and will therefore be of interest to students and educators involved in environmental education, as well as to broader stakeholders, not least parents, policymakers, and the wider public.

Its valuable contributions demand we reflect on what matters about environmental education and ask us to re-examine the everyday policies and practices that shape formal and informal approaches to the subject. Alongside testimony and inspirational ideas, it raises questions that prompt us to consider the value and potential of developing new ways of teaching and learning about the environment and our place within it. Fresh, critical thinking is of course essential to responding to the crisis, as is finding forms of pedagogy that will enable students and educators to foster forms of curiosity, engagement and solidarity with one another and the more-than-human world.

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Distilling the heartwood of academia

BY MELISSA GLACKIN

Melissa works as a senior lecturer in science education at King's College London where she leads the STEM education MA and the *Environmental Education: Sustainability and Society* module.

*Would you hew to the heartwood cutter?
Would you lay me low beneath your feet?
Listen to my sap mutter.
Hear my heartwood beat.*

*Would you throw me on the log-pile cutter?
Would you toss me to the steel saw blade?
Listen to my leaves flutter.
Hear my heartwood break.*

Heartwood, Spell Songs¹

Knowledge in the Heartwood

A tree's heartwood is the dense, mature wood found at the centre. It is the oldest part of the tree, which has often observed centuries of life. Rather than non-living, as some biologists have come to define it, I consider heartwood as the embodiment of a collection of deep-rooted memories. These memories have captured the stories of our Earth in the form of particles, communicated in annual tree rings. If we were to look closely, if we were to listen in, we might reach into this cavernous environmental knowledge it has preserved, alongside the stories told through roots, trunk, branches, blossoms and flowers.

Listening to heartwood and hearing this knowledge takes time, lots of time. It also takes patience. It demands that we sit still, open to discomfort, as our perspectives shift. Knowledge not only accumulates from the direct experience of the tree but is also pulled up through the roots and through the leaves, allowing the well-travelled water droplets and air particles to share their experiences from further afield. When you've listened to heartwood it often leads to wanting to share the experiences with others and to act.

Environmental education, including the research and scholarly literatures it has elicited, has much in common with the heartwood of a tree. In the core book we use on the MA module described below, *The World We'll Leave Behind*, Bill Scott and Paul Vare² remind us that since the beginning of the biosphere all education was environmental, as our survival rested on this knowledge – for our food, our shelter, and our safety. At the forefront of

environmental education were Indigenous peoples. They learnt to listen to the inhale and exhale of the Earth and become attuned to the biosphere's excesses and famines. Today's westernised notion of environmental education has roots in Rachel Carson's 1960s book *Silent Spring*³, which turned our gaze to the negative impacts of humans on Earth's systems. Over the past 50 years, the irony is that whilst the environmental and social challenges have become ever more pressing, the expanse in rich, deep, philosophical academic literatures concerning environmental education have similarly grown. Indeed, none so much than in the last decade.

In academia, such scholarly work might be considered as our heartwood. It holds wisdom, signifiers and way-markers. Similar to the practice of listening into the stories trees have to tell, scholarly work also requires us to sit still, to listen, and to consider a range of perspectives. This too requires time and patience; it requires guidance. In a busy and noisy world, time can feel like a scarce resource and guidance can be challenging to trust. The result is that much work has gone unread, and when it has been read, the readership is limited to academics, leaving the important messages and calls for action unheard to the majority. This silent neglect can be witnessed in scholarly repetition, as well as in the conservative and regressive policies and research programmes that keep us entrenched in the 'business-as-usual' practices which have arguably brought us to the climate crisis we find today.

Environmental Education: Sustainability & Society

The co-creation of the MA module *Environmental Education: Sustainability & Society*, later to become *Environment, Sustainability and the Role of Education*, was a direct response to the need to connect a greater audience to the literatures concerning the complex and multi-faceted field of environmental education. In 2018, I had the privilege of working with Kate Greer, a climate change education policy expert and all-round good human being, to co-create a Master's degree module for those studying in the field of education, and in particular STEM (Science Technology Engineering & Mathematics) Education. The resulting module set out to guide students, many of whom are educators, through the historical, political and philosophical landscape of environmental education academic literature. We wanted the module to open up our students' thinking, going beyond discussions of 'best practice' and 'evidence', to observe and critique the dominant discourses which are embedded in contemporary environmental-related education. In doing so, we have

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navigated the module through the sticky ground of how capitalism has come to shape our engagement with nature, the role that international and national policies play in agenda setting, alongside the tensions faced when designing an environmentally-just education. In doing so, we mine ideas of activism, educators' beliefs and self-efficacy, and alternative forms of practice. We provoke conversations concerning organisational responsibilities, including turning the gaze on ourselves as a higher education institution, to explore how they are stepping up to grapple with global emergencies and to ask whether educators have the capabilities required to respond. In doing this work, we encourage our students to become attuned to and adept in the language required to broker environmental and social divides.

In essence, akin to tapping maple trees for their syrup, we seek to extract and distil the heartwood of academic literatures. As a consequence, we were very alert to the irony and tension caused by prioritising the scholarly texts as a product of the mind over the lived and embodied experiences of the heart. In developing a module within the constraints of a higher education programme, with specific assessment demands, we wanted to ensure that, whilst academic texts were appropriately addressed, there were opportunities when the hearts, imaginations and experiences of our students were set free. These *openings* were gradually threaded through the seminars, where we were all called on to be brave. Examples of such *openings* include: an invitation to travel through time and consider our role in future generations' lives; a paired discussion on the heart's response to the life we live today; an empty chair present in group decision-making to act as a reminder of the impacts on future generations; and convening sessions outside of the academy and in the community, often in environmental education centres, to connect with those closest to the practice.

Our purpose

The purpose of this book is to share some of the rich learnings from the MA module. You might consider it as the next stage of distilling the heartwood that is locked away in the scholarly texts. We wanted the module discussions and resulting student research projects to be communicated further. Whilst we encouraged the development of academic writing during the programme, we understood that this mode of writing would not necessarily enable our students to naturally communicate their new understandings beyond the gates of the university. Colleagues, friends, family and neighbours were consistently noted as intended recipients for these important but often complicated issues, bound up in environmental and social change. That's why, whilst we wished to share the ideas from the module, we knew it needed to be digestible. The result is this collection of essays which captures and communicates many of the ideas, issues and debates we've explored.

And so, all the chapter authors have been brave: they were encouraged to write from the heart, rather than in the academic style they were used to, and to imagine their mum, brother or friend as the audience with whom they wanted to share their work. The process was as important as the outcome. So, whilst the chapters are single-authored, they have all been developed communally. Shirin Hine and Sophie Perry, both Environmental Education postgraduate students, have been crucial here in creating an atmosphere that encouraged risk-taking to flex a more heartfelt narrative. In mentioning risk-taking, possibly the scariest part of the process for all was the request that we go beyond the written word to draw an image to accompany the chapter. Drawing is something we do innately as children but progressively do less of as adults. This decline possibly has roots in the privileging of the written word within academia. As the adage suggests, a picture paints a thousand words... But you can be the judge of that.

The structure

All the chapters speak to an environmental education concern. The chapters are grouped under the themes of: *educators' perspectives*, *young peoples' perspectives*, and *the role of organisations*. Each section comprises two extended essays and a review. The authors of the extended essays have previously been, or currently are, students exploring environmental education, either as part of the MA in STEM Education or as part of their PhD programme. All have participated in the Environmental Education MA

“Akin to tapping maple trees for their syrup, we seek to extract and distil the heartwood of academic literatures.”

module, with the majority going on to complete their dissertation research projects in the area. In the spirit of communal work, and ensuring the process was instructive, each section was reviewed. Our reviewers are 'friends' of the MA module, invited as they have specific knowledge in the area and have contributed in some way to the module. Matthew Rose is an environmental educator at Holland Park Ecology Centre, a centre visited during the module. Samrena Antwi is a member of the London Wildlife Trust Youth board, a programme discussed during the module. And Paul Vare is a co-author on the core book we use on the module, highlighted above.

Our intention is not that the chapters are necessarily read sequentially; rather, you might be interested in a particular viewpoint (for example, educators or young people) and want to explore these chapters and the reviewers' reflections in tandem. However, in our final chapter, we draw out key themes and threads which we observed during the writing process and reflect on the meanings they have in our work within environmental education but also for all of us as friends, sisters, mothers or brothers.

Heartwood: mutter and beat

The chapter opened with a verse from Heartwood, a song motivated by the decline of nature-based literacy with the desire to reverse this trend. Inspired by the song, this collection of essays seeks to do something similar. It aims to distil the knowledge and wisdom of academic literatures from their mutter to reach a wider audience, in the hope that they will feel inspired to listen closer to the planetary heartbeat and take action to protect, maintain and support her. H

¹ The Lost Words (2019). *Heartwood: Spell Songs*. Heritage Creative. <https://www.thelostwords.org/spell-songs/> *The Spell Songs ensemble is an accompaniment to the Lost Words book by Jackie Morris and Robert MacFarlane which set out to re-wild our language, a response to the removal of everyday nature words from children's dictionaries.*

² Scott, W. & Vare, P. (2018). *The World We'll Leave Behind: Grasping the Sustainability Challenge*. Routledge.

³ Carson, R. (1963). *Silent Spring*. Hamish Hamilton: London.

Trees, bees and girls with muddy knees:

What can an awareness of gender offer Forest School educators?

BY SHIRIN HINE

Shirin is a PhD student at King's College London and a recipient of the Rosalind Driver Studentship in Science Education. Her research looks at Forest School and its potential as an approach to environmental education, with a particular focus on gender equality.

Forest School practice as radical 'alternative' environmental education

If you've had any contact with primary education in recent years, you've probably heard of Forest School. Rooted in Scandinavian outdoor pedagogy, this holistic, experiential approach to outdoor and environmental learning was introduced to the UK in the 1990s and is now widely practised across a range of educational settings. Based on distinct principles and good practice criteria¹, it has been defined as:

"an inspirational process, that offers ALL learners regular opportunities to achieve and develop confidence and self-esteem through hands-on learning experiences in a woodland or natural environment with trees."²

This emphasis (not my own) on ALL learners – which, according to Forest School's principles, includes practitioners – is worth considering. Educators (particularly within mainstream education, as a cursory glance at the National Curriculum will tell you) are seldom positioned as learners; their practice constrained by systems that privilege mind over body, adult over child, human over non-human. As the climate crisis casts an ever-lengthening



“Girls, look at your jackets! What are your mums going to say?!”

shadow over our collective consciousness, mainstream environmental education appears increasingly out of step with the demands our species has placed upon it. ‘Alternative’ approaches such as Forest School may therefore offer a space in which the behaviours, hierarchies and assumptions arguably underpinning current environmental and social crises might be renegotiated: we can ALL become (un)learners.

The unique perspective of Forest School practitioners

But why focus on Forest School over other ‘alternative’ environmental education approaches? Its enduring popularity in schools is certainly a factor, offering a unique opportunity to embed a potentially radical pedagogy alongside (if not directly into) mainstream education. A growing body of research highlights its benefits to learners’ physical, mental and emotional wellbeing and it has been extolled in the media as a means of ‘reconnecting’ with

nature, not least in the wake of the Covid-19 pandemic. But another reason for my interest in Forest School – and for the *hope* this approach has come to represent to me as a researcher of environmental education – has been one I initially glimpsed as a Forest School volunteer, and then encountered repeatedly as I began my PhD studies. Speaking about her own discovery of Forest School, Nina, an experienced Forest School educator, captures this perfectly:

“I just realised... this is literally everything I love and care about: the answer to all the world’s problems, as far as I’m concerned, is basically Forest School! Like, this is it!”

This enthusiasm, this profound belief in Forest School’s potential and sense of personal alignment with the values at its core has been evident across the many interviews and observations I’ve conducted with Forest School practitioners. Their allegiance is not uncomplicated: many are simultaneously frustrated by various aspects of practice, and questions abound over, for example, whether the costly Level 3 qualification should be a prerequisite for Forest School leadership, or to what extent Forest School should be linked to the mainstream curriculum, if at all. Nevertheless, underpinning this questioning is a deep conviction in the unique potential of Forest School and a commitment to its central tenet of reflexive practice. It is by acknowledging and delving into these tensions, however challenging, that many educators feel Forest School’s potential might be further understood. The experiences and attitudes of practitioners – together with their fundamental dedication to the approach – therefore have much to teach us about achieving this potential.

In this essay, which draws on observations from my PhD research with Forest School practitioners, I want to highlight educators’ role in a particular tension at the heart of Forest School practice in the context of environmental education: namely, the potential conflict between supporting child-led learning and facilitating the ‘different ways of being’³ required to renegotiate problematic relations with our planet and each other. In other words, for example, if a child chooses to explore a tree by snapping off a branch, should this be challenged? If that branch is used aggressively in war play, at what point should the educator step in, if at all? When a child’s right to experience nature on their own terms reinforces dominance over those around them, human or otherwise, does Forest School simply entrench the power structures it purportedly rejects? How can its potential to support more equitable environmental and social relations be realised – and what might help practitioners achieve this? While I

certainly don't possess the answers to these questions, I want to share a perspective which has helped me begin to address them with greater clarity.

Considering gender in Forest School

The lens through which I have chosen to explore these questions in my current research – and one I believe can assist educators in responding to them – is that of ecofeminism, which draws on the concept of gender to analyse relations between humans and the more-than-human world. Using this perspective, I believe that gender equality within an environmental education approach such as Forest School can be a useful indicator of its potential to facilitate more socially and environmentally equitable ways of being among learners.

Here, though, rather than offer a dry account of theorising Forest School practice, I want to tell the story of how I arrived at this position. The first of the three vignettes below recalls my own “this is it!” moment as a newcomer to Forest School, and how my focus on gender was shaped during my early encounters with the approach. The second describes gendered power dynamics and their effects on a learner's Forest School experience; and the final example shows similar dynamics being acknowledged and apparently influencing the practitioner's facilitation of the session. By illustrating this progression, I hope these examples will convey how an awareness of gender, combined with reflexive practice, might help educators navigate some of the complex tensions between the aims of Forest School and its everyday reality, and highlight aspects of practice which support the achievement of Forest School's potential as a truly 'alternative' environmental education.

1. Muddy coats

My involvement with Forest School happened almost by accident. Responding to a call for volunteer helpers at a local primary school, I was assigned to a 30-strong Year 1 class and asked to accompany them out into the (mostly concrete) school playground each week for a 90-minute Forest School session. Along with the form teacher, my presence increased the all-important adult-to-child ratio while a Teaching Assistant (TA), a qualified Forest School leader, led the sessions. Perhaps sensing the subtle change in hierarchy, the children appeared instinctively drawn to areas usually off limits: the tangled tree overlooking a litter-strewn alleyway, a fenced-off patch of soil, or the flowerbed, usually decorative but now full of opportunities to explore the underside of a damp log squirming with

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– Nina, Forest School leader

woodlice, or to plant a bulb deep in the ground.

This setting, I would later learn, typified what some call Forest School 'lite' – not *pure* Forest School, fully observant of best practice, but a sort of best attempt at it within the confines of a time-and-cash-strapped mainstream state school. Predictable playground patterns were evident, most starkly surrounding gender: boys dominated the centre of the site with games of 'Vikings' while girls mostly stayed nearer the edges, occupying less space. Nevertheless, on these afternoons I became aware of a shift in dynamics between the children, adults and the familiar surroundings of the playground. Certain activities, facilitated by the Forest School leader, lent these rigid groups a new fluidity. Den-building, seed-planting, or building 'bug hotels' seemed to allow the children to relax into different roles: collaborating with a wider group of peers or teaching the adults about something they had found. Here, the Forest School leader seemed to *hold* the class, often with minimal instruction, offering just enough guidance and encouragement to enable the children to discover these new experiences. I found these moments unexpectedly invigorating, inwardly cheering as I watched a usually timid child confidently directing a group of classmates, or a child previously displaying challenging behaviour now contentedly immersed in constructing a home for some ants.

In one such incident, three girls, who had earlier tiptoed around puddles to avoid getting their boots dirty, bounded giddily across the site, gleefully daubing each other with mud. As the session concluded they ran together, red-cheeked and panting, towards the line leading back indoors. Seeing them, the TA called out “Girls, look at your jackets! What are your mums going to say?!” Their steps slowed, their exuberance fading as they shrugged and filed back towards the classroom, while an equally mud-smearing boy ran past, shouting but seemingly unnoticed by the adults. Watching the girls' developing tolerance of the mud unwittingly undermined, it occurred to me that

these small, subversive changes in Forest School in which societal expectations seemingly held less power were fragile, vulnerable to the most throwaway of comments. This was not a criticism of the practitioner, whose careful scaffolding had facilitated such moments in the first place. Rather, it was a recognition of the intricacies of Forest School practice and a realisation of the extent to which social norms influence learners' nascent environmental awareness. Forest School seemed the ideal place to explore this link more fully.

2. The tree swing

The grounds of the village school where Niamh, a freelance Forest School practitioner, held weekly sessions appeared more conducive to 'pure' Forest School than the urban playground in which I'd first encountered the approach. Surrounded by bushes and trees, this site smelt reassuringly autumnal and was furnished with a carefully considered array of props and activities, which Niamh set up well before the children's arrival. Among this equipment was a wooden swing, tied onto the bough of a sturdy tree. Set back near the edge of the site, this tree offered a sheltered vantage point from which I could observe unobtrusively and so, over the following weeks, I spent much time rooted by its side, its damp scent and sticky amber sap becoming familiar sensory companions.

Of all the activities on offer, the swing was among the most popular, but by the second session a boy named Robin had begun to regard it as his own, shouting aggressively if a child other than his friend, Finlay, approached. There he remained, occasionally calling out to Finlay to swing him higher, having tied ropes nearby to keep others away. Halfway through the session, Hannah, one of the girls who had been eyeing the swing from across the site, approached Niamh, whispering and pointing towards Robin. Niamh nodded and walked slowly towards the swing. "Is it OK, Robin..." she began, "...if Hannah uses the swing for a bit?" Robin looked up, frowning. "No!" he replied, "I'm using it! NO!" Niamh crouched beside him, her tone gentle and steady. "I know the swing is special to you" she continued, "but there are lots of others who would also like to use it, and we need to learn to share." Robin's expression grew visibly angrier. "Definitely NOT!" he shouted. Still calm, Niamh continued, "Can we make a deal? You can have five more minutes, then I'm going to ask you to let Hannah have a go." Saying nothing, Robin turned away and began swinging back and forth again, kicking the tree repeatedly as he did so.

Fifteen minutes later Hannah tapped Niamh's arm,

again whispering to her and pointing at the swing still occupied by Robin. Niamh paused and gently shook her head. I heard her acknowledge Hannah's disappointment and watched as she pointed towards a table where six other girls were making windchimes. Silently, Hannah made her way towards them, twice turning back to look at the swing as she did so. Robin, unaware of this quiet exchange, continued to swing and the contented buzz of the setting remained intact, a further angry outburst averted. I felt a surge of exasperation at the invisibility of Hannah's patience and determination, and of her quiet disappointment, which had allowed the session to progress peacefully. Aware of the need to remain inconspicuous, I stood still as I watched her approach the table and wondered how this small girl had interpreted what had happened. What had it taught her about her place at Forest School? Her place in the world? I leant back against the tree feeling frustrated and – despite my role as an observer – somehow implicated, listening to the deliberate scraping of Robin's boots against the trunk and watching fragments of bark fall to the ground with each blow.

3. The dead bee

When I met Lucy at the site of her weekly Forest School club, four boys aged nine or ten had arrived carrying bows made from sticks and string at a previous session and were running, shouting, into the woodland. Turning to me briefly as we walked behind them, Lucy said quietly "there's a lot of boy energy going on. You need to watch that, actually... you start to get a lot of weapons and swords..." I thought about this remark, wondering what she believed this 'boy energy' was (Nature? Nurture? Both?). In any case, her comment told me something about her approach to facilitating Forest School. *You need to watch that.*

As the session began it was clear that the 'energy' of this group differed from those around them and frequently bordered on – sometimes spilling into – aggression. This didn't seem intentionally directed at the other children, but the volatile relations within this foursome created a vague air of threat which closed in on whatever smaller target lay in their path: an insect roughly handled and squashed, or thin branches stripped from trees in a competitive display of strength. Seeing one of these boys gripping his friend's arm and threatening to put a beetle down his coat, Lucy tapped his shoulder and said calmly "We'll look at the microscope this afternoon, Oliver, because I know you've been asking about it." Oliver looked up and nodded as Lucy continued walking across the site to help a group of younger children.

“When a child’s right to experience nature on their own terms reinforces dominance over those around them, human or otherwise, does Forest School simply entrench the power structures it purportedly rejects?”

As Lucy placed the microscope onto a large tree stump a little later, Oliver approached and sat down on the log beside her, saying nothing. Lucy showed him a small box, from which he picked out a dead bee, which she explained had been found on the site. The pair sat together, talking about the bee – its form, its colours, its role in the ecosystem – as Oliver repeatedly peered through the lens, asking more questions. After several minutes he gently slid the bee from underneath the glass and into his hand, raising it to his face to study its tiny body further. I thought back to Lucy’s acknowledgement of the gendered dynamics at the start of the session and wondered whether this had influenced the skill and subtlety with which she had engaged Oliver now, in this activity which enabled him to slow down and consider his surroundings at a different pace. Putting the bee’s body back in the box, Oliver carefully picked up a leaf skeleton and repeated the simple, quiet process of looking, feeling, questioning. Eventually, Lucy asked him “Have you had enough now?” Oliver nodded and Lucy replied “thank you for letting me show you.”

These episodes are drawn from accumulated observations of various unrelated Forest School settings, each shaped by a unique set of social and environmental influences. What links them, however, is the importance of the educator’s approach in treading the delicate line between supporting child-led learning and facilitating more equitable social and environmental relations – something environmental education must achieve if we are to change the harmful behaviours of our species. Observing Forest School has shown me that, despite its ethos, its carefully planned activities, or the proximity to nature it offers, it is practitioners’ awareness and interrogation of power relations within the setting which seemingly exerts the greatest influence over whether Forest School merely entrenches restrictive social hierarchies (as experienced by

Hannah in the second vignette) or transcends them (as with Oliver in the third). My own frustration at observing Hannah’s exclusion from the tree swing – and my inability to speak or act as I stood taking notes by the tree – reflected the powerlessness commonly felt when confronted with overarching structures of inequality. When learners encounter these silent structures, unchallenged by those in positions of power, how can they access the freedom to think and act beyond them, even in a setting as conducive to freedom as Forest School? As I hope these stories convey, an awareness of gendered inequalities – inspired by an ecofeminist perspective wherein social and environmental concerns are inextricably bound – may help practitioners foster more equitable social and environmental relations within (and perhaps even beyond) Forest School. The flexibility, sensitivity and reflexivity of the Forest School educators I’ve encountered during my research so far, together with the glimpses of possibility each visit to a Forest School setting has shown me, leaves me hopeful that this potential can be realised. H

¹ Forest School Association (FSA). (2023). Full principles and Criteria for Good Practice. Retrieved from: <https://www.forestschoollassociation.org/full-principles-and-criteria-for-good-practice/>

² Forest School Association (FSA). (2012). What is Forest School? Retrieved from: <https://www.forestschoollassociation.org/what-is-forest-school/>

³ Waite, S., Rogers, S. & Evans, J. (2013). Freedom, flow and fairness: exploring how children develop socially at school through outdoor play. *Journal of Adventure Education & Outdoor Learning*, 13(3), pp.255-276. (p.264).

The frontline of environmental education:

What can educators' perspectives teach us?

BY HEATHER TIERNEY

Heather is a physics teacher at a school in Greater Manchester. She completed the MA in STEM Education at King's where her interest in environmental education developed.

Both education and the environment can be heavy and hard-going topics. Undoubtedly, both contain complex problems, so combining them into 'Environmental Education' might scare you off. Are you about to read a long list of problems without conceivable solutions? This was certainly a thought that had crossed my mind when I decided to embark on research concerning teachers' views on environmental education. Over the course of my research, was I going to follow well-trodden paths leading me to inevitable conclusions of an overwhelming problem with no clear answer?

However, this was not the outcome. Rather, over the course of eight interviews with secondary school teachers of subjects traditionally aligned with environmental education (science and geography) and of those not traditionally associated with environmental education (religious education (RE), maths, history, and English), I found their insights to be interesting, revealing, and inspiring. While I wasn't surprised that the science and geography teachers had a strong belief in the importance of environmental education, it was the strength of belief from the second group of teachers that showed me that

a desire to improve our environment through education transcended subject disciplines.

In this chapter I present some of the findings from my research and share direct quotes from the teachers interviewed to offer a better insight into their beliefs and wisdom. I also consider implications for education policy in light of their suggestions. However, before all that, I want to explain my personal motivation for this research.

My perspective as a science teacher

When reading the literature on environmental education one thing that struck me was that, though there was existing research on teachers' views and beliefs on environmental education, so much of it focussed purely on science and geography teachers. Interestingly, as a science teacher myself, I had never felt that my interest in environmental matters was related to the subject I taught. Yes, I taught about the environment when teaching science, but that didn't influence my thoughts and feelings regarding the environment. My interest in the environment came from somewhere else that felt far more personal than my identity as a science educator. I was aware of colleagues who shared my interest in the environment, and also some of my frustrations around what more schools could do in this critical area. Some of these colleagues were fellow science teachers, or geography teachers, but many also taught a wide range of other subjects. This second group clearly had important views on how environmental education could be taught in schools, but it was evident from the studies I'd encountered that their opinions were often neglected. I wanted my research to give these teachers a clear voice, a platform, and an opportunity to share their thoughts on how their subject responds – or should respond – to integrating the environmental crisis, as well as to discuss the impact of this. In putting forward their views and ideas, my intention is to add to a body of research supporting changes in the way environmental education is delivered, both at school and policy levels, in order to increase its impact and put the environment at the forefront of education's agenda.

Teachers' understanding of environmental education

To understand teachers' views on environmental education, I needed to speak to teachers. Working at a state secondary school, I was well placed to do this and so I conducted interviews with eight of my colleagues. Since I knew my interviewees well, the interviews were fairly informal, but this meant I was able to ask for clarifications and probe further throughout the interview process, and

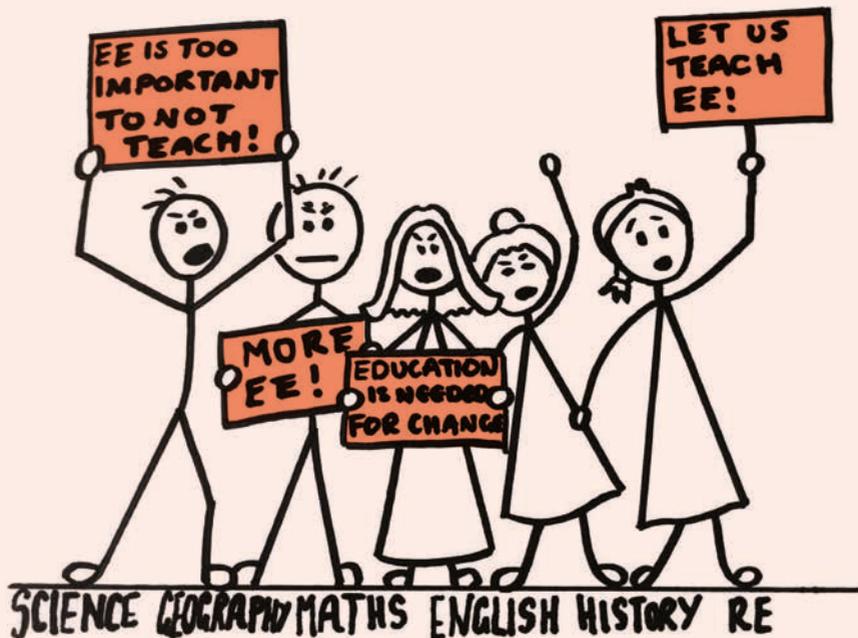
“Environmental education may be one of the most important things that we need to focus on in the next 10-15 years... it needs a place. – Donna (geography teacher)”

that they were comfortable sharing their thoughts and views with me. In this chapter I will offer some findings from these interviews, concluding with my own reflections on the implications for environmental education in the school curriculum and in wider policy.

One of the first problems encountered during the interviews I conducted was that environmental education is not a well understood term. Some of the teachers had a vague idea of it relating to climate change and being taught to students in science, but beyond that they were unsure what it meant or encompassed. Donna, a geography teacher, was one of the more confident teachers I interviewed and was able to give me a clear idea of what she felt environmental education was. However, as she spoke about its breadth, she reflected on many aspects of environmental education not falling under the content delivered in her subject, and so being excluded from the curriculum:

Donna (geography): *...It's [environmental education is] educating them about the environment, what does environment mean, it means the world around them...you know, it's probably quite hard to define now I think about it... [Other than science and geography] I'm not sure I can think of another subject that would even touch it at all...*

Ellie and Liam, history and English teachers respectively, found environmental education harder to define. They both mentioned climate change when pushed but were reticent when asked to commit to any definition of environmental education, or to say for certain where it would be taught. Environmental education is not currently present in either the history or English curriculum, which might explain their lack of curriculum knowledge on environmental education. However, later in their interviews, both teachers separately mentioned where environmental education could be included in their subjects, as well as the benefits of students being exposed to more environmental education in the curriculum:



Ellie (history): *I mean, I wouldn't say I've got a very strong knowledge of it [environmental education].*

Liam (English): *From my knowledge, I would think it's [environmental education] taught in geography and science. I don't really know where else explicitly it would be taught...*

It was not a surprise that many of my interviewees hadn't heard the term 'environmental education'. It is not a term used in the school where we teach, and I had only become familiar with its use through my research. Despite this, when I asked if environmental education was important, the response was a unanimous 'yes'! For example, Ethan, a maths teacher, was very unfamiliar with environmental education but saw it as part of a wider responsibility to prepare his students for life outside school, since they would hear about the climate crisis and other environmental issues in the news and would need to form judgements on these:

Ethan (maths): *I'd say [environmental education is] very important, [it's] about making sure they leave with a solid education and also understanding of their personal responsibilities and how the world works...*

Donna, Tom, and Cath all felt they taught aspects related to environmental education in their subjects. Although this was perhaps unsurprising in the cases of Donna and Cath as teachers of geography and chemistry respectively, Tom was one of my most interesting interviewees as RE is not a subject often associated with environmental understanding and action. Tom spoke about teaching the effects of environmental issues on humans, rather than the causes and effects on the natural environment often associated with geography and science, which offered a differing viewpoint. These three teachers were all very vocal about the importance of teaching environmental education, both for the sake of the environment and that of students:

Tom (RE): *[environmental education is] incredibly important because at the end of the day, the kids are the ones that are going to suffer...*

Donna (geography): *I think [environmental education] may be one of the most important things that we need to focus on in the next 10-15 years. I think it needs a place. I think it's underdone at the moment, and I think it's of the utmost importance.*

Cath (chemistry): *I think it's incredibly important, because it's, you know, I believe, from the science that I've seen, and the facts that I've read, that it is a huge disaster and a huge crisis coming on the way. It's happening already, not to us, but it's happening to other humans in the world... I think that people who have been living with privilege, like me, should be trying to pull their weight in some way or another. I think that that is a view that you should be passing on to students as they come through school...*

As with all teachers across disciplines, my job is to teach students about my subject and prepare them for their assessments. Equally, however, a large part of our job is modelling the behaviour we would like to see in our students and giving them the tools to develop into people who can make a positive impact in society, both now and after they leave school. As I have an interest in the environment, I model behaviours to promote care of the environment, such as running the school's eco-club. This is a weekly student-led club, which I facilitate with another member of staff, where students come up with strategies to promote positive environmental behaviours for the teachers and students at the school and implement changes to make the school more eco-friendly. This is an

opportunity for me to help students develop into adults who care about the environment they live in, which I believe is a valuable part of my job. Unsurprisingly perhaps, this was echoed by other science teachers, who thought it was important to promote environmental education to students so they had the knowledge to make their own decisions, which would hopefully include a care and respect for their environment:

Adam (biology): *You know there's definitely a view, I think that, you know, we should be imparting a message of trying to protect and improve our environment... we can set the example through lessons, through activities that we do outside of lessons, through behaviours that we can demonstrate.*

Cath (chemistry): *I think that as somebody who believes that they can be sort of good within society, then it's kind of my responsibility to influence young people with views and the tools to analyse what they're doing, and to synthesise their own viewpoint...*

What teachers think environmental education should look like in schools

My own ideas about what environmental education could look like in schools were cultivated during my research as I read literature about environmental education in schools around the world; before this my understanding of environmental education was limited. Hence, when I asked the teachers I interviewed what they thought environmental education could look like in schools, I was pleasantly surprised by the range and detail in their responses.

Several of the teachers referred to environmental education being integrated in all parts of school life. Tom spoke about the importance of giving environmental education equal value within the curriculum in order for it to be valued by the students, rather than being included on an occasional basis only and therefore feeling like an afterthought:

Tom (RE): *I think it needs to be valued, in a way that it's not just tacked on... it needs to be integrated as a partner of value [in the] curriculum.*

The idea of environmental education being integrated into all curriculum subjects was also highlighted by several other teachers as a way of raising its profile and impact in schools. Donna, a very experienced classroom teacher, referred to a previous national policy concerning numeracy and literacy, where teachers across all disciplines were to assume responsibility for students' progress in these particular areas. She suggested that environmental education could be threaded across the

“More isn't necessarily effective if students feel they are being preached at, or if they can't see the relevance of what they are being told to their personal situation.”

school curriculum in a similar way:

Donna (geography): *I think if you have a national drive towards something, so for example, when we had this national drive towards literacy and numeracy when we said [all curriculum] subjects, you really, you know, go out of your way to make this part of your thing... I think if you did that, you'd be surprised at what people could come up with.*

Whilst more environmental education in schools sounds like an excellent plan, unless planned and taught in an effective manner it is a pointless endeavour. The current way environmental education is delivered in science and geography is largely fact-driven and, even when delivered by the most passionate of teachers, often comes across as dry. More isn't necessarily effective if students feel they are being preached at, or if they can't see the relevance of what they are being told to their personal situation. Most people in the UK have some awareness of climate change and other environmental crises; however, many people are not driven to act. Clearly the knowledge alone isn't sufficient, and this is a sentiment that Tom raised:

Tom (RE): *...we have the knowledge already. It's really quite clear. You look at the climate crisis and things like that. We have that knowledge already, and people aren't doing anything.*

The teachers I interviewed spoke of two ways to increase the impact of environmental education. The first was to make environmental education come alive through practice. Rather than repeatedly subjecting students to hearing precisely how dire our prognosis is, which can be anxiety-inducing to say the least, they could be given practical experiences and solutions to empower them to act. As a teacher I am a big proponent of taking students out of the classroom to bring science alive for them, and Cath spoke about this idea in relation to environmental education:

Cath (chemistry): *So, I think, like, maybe more visits to*

“A drastic shift in education policy regarding environmental education is needed, with the realisation that teachers have the knowledge, expertise, and motivation to make these changes realistic, long-lasting, and effective.”

places, because inside a classroom, it's very difficult to make some things feel real. So, maybe go and see your power station... go to a museum... bring people in to talk about it.

The second point raised was that environmental education should be taught in such a way as to influence beliefs and emotions:

Adam (biology): *...most of the facts I learned at school I've forgotten, but the reasons why I did certain things and the... beliefs, I suppose... so the kind of... the passion and the thoughts as to why certain things we've done, or the intention of certain things, that has a longer lasting impact, I think, than just the facts themselves.*

There are many emotive aspects of environmental education – the image of a single polar bear on a block of drifting ice is a familiar one – and although these shouldn't be overused lest they become ineffective, in the right situation they can be useful. Tom, the RE teacher, spoke about teaching about veganism in relation to the environment and how, through discussion, students could give their viewpoints and speak passionately about what they believed. By picking out different aspects of environmental education and teaching them in several subjects, a light touch can be used. Rather than repeatedly being told in science and geography that too much carbon dioxide is being released into the atmosphere, the students gain a more nuanced view of the causes, effects and impacts of different environmental crises across the world.

What does this all mean?

These interviews left me feeling hopeful. Each teacher I interviewed cared about environmental education and saw value in embedding it in school life. They also suggested many varied ways that this could be done. When embarking on this research I had hoped this would be the case, as this was how I felt, so it felt empowering to see that I wasn't alone in thinking that a change needed to be made. However, as unanimous as this sentiment was in my interviews, I couldn't help but feel that

this change was a long way off. Relying on the goodwill of teachers to put on trips, run clubs and plan activities to promote environmentally positive behaviour is unfair on teachers and students. Something this important cannot only be implemented in some schools by some teachers, as the impact will be small and unsustainable. With all the other demands being placed on teachers, it is easy for something which isn't required by the school or by wider policy to be sidelined. Asking teachers to shoulder the responsibility of preparing students to enter a world which requires them to understand environmental matters and to care about them is fatiguing, especially when often it feels that environmental concerns are overlooked in favour of profit margins and the bottom line in the 'real world'.

Environmental education needs to be properly integrated into school life. For this to be successful, collective responsibility needs to be taken by policymakers, school governors, leaders, and teachers. This would require significant changes to ensure that environmental education permeates all curriculum disciplines and that teachers were appropriately trained to deliver this. As my research illustrates, teachers understand the importance of environmental education and can see how important it is that students also see this. However, this isn't enough. A drastic shift in education policy regarding environmental education is needed, with the realisation that teachers have the knowledge, expertise and motivation to make these changes realistic, long-lasting and effective. H

Reflections from an educator's perspective

BY MATTHEW ROSE

Matthew has worked in environmental education for over twenty years. His career started from a love of wildlife and the outdoors, followed by discovering the joy of teaching children about nature whilst working at an outdoor activity centre in north Norfolk. Since 2004 he has worked at Holland Park Ecology Centre, delivering one-off environmental education sessions and Forest School programmes to local children and young people.

As an environmental educator I was intrigued by the titles of the chapters in this section, as both consider environmental education in relation to the educators involved, rather than what is taught or the outcomes attained. I was also keen to gain further insight into the role of the educator and their impact on learners. In addition, as someone whose work spans traditional environmental education and Forest School, I wondered if these essays might highlight the similarities and tensions between the different approaches.

Reading Heather's essay, *The frontline of environmental education: What can educators' perspectives teach us?*, unlike the author, I was surprised to learn that most teachers outside science and geography were not familiar with the term 'environmental education'. This reflects the siloed way in which secondary teaching operates, and the work required to show how environmental education can be integrated into other subject areas. I was also interested to see that teachers most strongly linked environmental education to learning about the climate crisis which, whilst crucial – and underplayed in the curriculum – is just one element of this broad discipline, which encompasses everything from investigation of the natural world and environmental issues to play and creativity in a natural environment.

Nevertheless, it was heartening that teachers agreed environmental education should be cross-curricular, and wanted to include it in their own subject teaching, as well as recognising that it comes into its own as a hands-on subject. I agree that linking this approach to "practical experiences and solutions to empower [students] to act" is a way to find hope in what can otherwise seem a desperate



situation. As Heather's research highlights, environmental education is often seen as an optional extra, and this is reflected in how few secondary schools overcome the barriers of timetabling and staffing to visit environmental education providers or simply get outside the classroom. The chapter makes a compelling case for an embedded, cross-curricular approach to environmental education.

In the essay *Trees, bees and girls with muddy knees: What can an awareness of gender offer Forest School educators?*, Shirin's introduction makes the important point that, in Forest School, ALL those who participate can learn and develop. The practice is based on child-led learning, but it is crucial to acknowledge that we can all be learners.

The vignettes that Shirin so lyrically presents provide a fascinating picture of the diverse ways that Forest School can work in different environments. The first two stories were saddening in their stark illustration of how an

“Environmental educators have the power to impact a young person’s feelings about their own position in the world, as well as to inform them about the natural world and the issues it faces.”

educator can unwittingly reinforce gender stereotypes: the girls who are told off for being muddy; the girl who must concede to prevent conflict with the uncompromising boy. The third story surprised me: following the use of gendered language (“boy energy”) I was expecting an ending about defusing a situation; instead we saw how providing children with the space and time to explore the natural world can allow them to explore a different part of their own nature.

Reflecting on my own practice, Forest School's essential element of play should provide an opportunity for children to express themselves with freedom, but there is a balancing act to ensure the safety and smooth running of the session. I recognise this potential conflict between supporting child-led learning and facilitating ‘different ways of being’ – knowing how and when to intervene is vital. As Shirin's essay shows, educators must also be conscious of how they can support learners' development by removing barriers to equality.

Together these chapters highlight the scope of the term environmental education: the interviewed teachers considered this as an academic subject area, whilst Forest School is a practice based in outdoor learning and play. This scope means that there are myriad ways educators can engage learners, nurturing their appreciation of the environment and, in doing so, inspiring a desire to protect it.

Both chapters reveal the responsibility and potential power of educators, both within the framework of environmental education and, more ambitiously, for society as a whole. They also show how educators need support to feel confident offering environmental education, in order to broaden learners' understanding of the issues involved and enable them to examine their own place within the environment. Heather and Shirin highlight the need for experiential education, and how these learning opportunities not only benefit those being taught, but should also mean the accompanying adults can learn and see things differently. Being out of the classroom not only allows us to experience the world around us, but also removes the expectations and barriers associated with the classroom, whether this concerns the methods of learning or the ways in which learners are able to express themselves.

The essays are an important reminder that environmental educators have the power to impact a young person's feelings about their own position in the world, as well as to inform them about the natural world and the issues it faces. Ultimately, the authors offer us hope, showing that environmental education can help us better understand how to treat the environment and each other with sensitivity. **H**

A question of authenticity

BY RASHA JOMAA

Rasha is a science teacher, specialising in physics. Rasha has recently completed her MA in STEM education at King's College London and plans to continue researching environmental education in the form of a PhD.

The problem of addressing climate change in education

As our youth grow up, the world they might know initially as safe and secure can begin to feel like a scary place. Young people's fears change, from concerns about friendships in the playground, to how they'll navigate their futures. As they grow, their knowledge and understanding increases, and they begin to experience the complexity of the social, economic and political fabric of the lives they lead. This new knowledge, that the world is not as stable or certain as they originally thought, can be fear-provoking. Alongside this 'normal' human development, young people are also negotiating a new fear of biodiversity loss and climate change. We are living in a time of global crisis. Young people are regularly exposed to media headlines such as: 'code red', 'catastrophe' and 'the end of life as we know it'. And whilst the truth of climate change is irrefutable, young people are simultaneously experiencing companies and governments responding with lip service or green-washed policies and strategies at best, and at worst, indifference.

In fact, those reading the plethora of bold, capitalised threats are faced with an even more difficult challenge: to decide what their own role in the matter might be. This is a challenge that many young people say they do not

feel educated to take on. So how should youth respond? Should they carry on reading the doom and gloom in the news? Take their knowledge from unverified and unfiltered social media influencers? Ask, and believe, the adults in their lives? And what role and responsibility ought the education system play? These questions are important to consider, particularly since this system – which was, after all, designed to prepare the youth of today for their lives tomorrow – is severely lacking any real value in terms of environmental awareness and education.

Whilst for some young people it is important to try and act to make a change, however small, for others the aforementioned messages of doom and gloom can result in hopelessness and a sense that the Earth's destruction is inevitable. This may explain why, whilst many young people seem to be filled with a deep-set concern to spread climate change awareness and make a difference, others express more scepticism. After all, what can they do as lone individuals? For example, will their individual decision to refrain from buying a handful of fast-fashion polyester clothing really make any difference in the sea of industrial-scale destruction around them?

So, looking to the future, how do we educate young people in terms of climate change and the environment? As a teacher, this is my cue to jump in. But what role do I play in filling this gap which is ultimately essential to their understanding of the world? In my day job, as a science educator, I carry many responsibilities, including inspiring, nurturing, motivating and educating my students. My most important role of all, however, is to equip my students with meaningful knowledge and skills that will afford them the most success in their futures. And what could be more important than the skills that will support their understanding of the environment in which they live and enable them to change for the better the world around them?

Identity

This brings a question of identity. I am more complex than an icosahedron: in one morning, I can switch from a daughter to a sister to an aunt or a friend. In my professional settings, I carry around the identities of student, researcher, colleague and teacher. And each time, I feel myself being pulled and formed into a different mould to fit the setting I am in. My voice, choice of language, even my sense of style and elements of my visible presentation change to fit my surroundings like an ever-adapting chameleon. And although these changes are arguably normal, where does that leave me? Am I a product of my surroundings?

“I wondered if we are ever able to state what we truly believe, and how we might find our ‘true’ selves.”



From my observations, my students are ever adapting too. Depending on the time of day, the context and even the weather, the identities of the young people in front of me change and shift. This shifting isn't something they've learnt directly; rather, it is tacit knowledge accumulated over time and is dependent on the circumstances in which they find themselves. From talking in front of a peer audience, to their conversations with me as their teacher, or having private conversations amongst themselves, their tone, chosen language and topics change to accommodate the situation. As they navigate through life, their roles and identities develop and grow, like a pack of Pokémon cards collected over time.

These observations concerning shifting identities were of interest to me as I began to consider what we really know about our young people's feelings in terms of climate change and their related education. From the 'student strikes' and the research reporting that 'youth want more action on climate', I was struck on the one hand by the archetype of 'youth' that was being presented and researched, yet on the other hand by the multiple identities and shifting views and values I had observed through my own experiences and, therefore, by the incredible challenge this presented in capturing 'authentic', fluctuating, points of view. Trying to hear youth voice whilst being aware of research authenticity and shifting identities become the focus of my MA dissertation research.

“Whilst they don’t all know how to deal with the problems around them – what to do, or even what *could* be done – they all, to different extents, have fears related to their future, and that of the Earth.”

The pursuit of ‘authenticity’ alongside shifting identities

During 2022 I completed my MA dissertation research collecting data from students through questionnaires and focus groups. Whilst still a teacher, I was now also juggling the identity of a researcher as I explored the views of young people (both at my school and others) concerning environmental issues and their experiences of education.

As I prepared to collect my research data, I was in no doubt that the voices of young people were of the highest importance in exploring how climate change education might be better included in schools. Knowledge of their lived experiences and what they felt they needed from environmental education was crucial. But the collection of such information is tricky, and I was aware of at least three influences that might affect their responses.

The first influence is one all researchers face: since the formal ethical research protocol requires the researcher to share the title of the project and a brief rationale, students who were already interested in environmental action were perhaps more likely to participate in the research, potentially resulting in a narrowing of youth perspectives.

The second influence was complex and unique to my study; what identity during the research process did we assume? My familiarity with the students’ lives offered me an enhanced insight as a researcher. It afforded me an understanding of the context in which the participants were developing their perspectives and meant I could discern more nuanced meanings which outsiders might miss. During the research focus groups, I no longer saw myself as their physics teacher, teaching them and answering their questions, but as a university researcher, finding answers from my research participants. Our roles had changed as they held the answers to my questions. But was I a researcher to them, or still their teacher, quizzing them and assessing their understanding? And, even more importantly, how did they view themselves? In my classroom, they are my students; they come in with the presumption that they will be doing some form of learning. Although the setting was different, was I still to them in the role of educator, whilst they sat and waited to perform

tasks to demonstrate their understanding to me? Did they still see themselves as the students in the focus group?

That said, I was acutely aware that in the case of my research study, as a teacher at the school, many students were already conscious of my keenness on the topic of climate action, and that this might influence their responses. They may have internalised my philosophical position, my interests and my beliefs from my lessons, our interactions, as well as my involvement in other school projects such as the elimination of plastic cutlery in the canteen, the introduction of compost bins, or the ‘climate change’ projects they would have participated in during my lessons. In other words, the students may have already formed opinions on what they thought I would want to hear during the research focus groups.

The third influence is more general: in any face-to-face interaction, whether for research or otherwise, as humans we are likely to be influenced by social conformity, even unknowingly. I could therefore not ignore the influence that the participants may have had on each other during the focus group discussions. An illustration of this was when one participant was very keen to share their views as they were intending to apply for a university course related to environmental studies. Although they were a great participant and had many thoughts and ideas to share, the others obediently agreed with all the points the student made, and little attempt was made to oppose or diverge from their (strong) opinions.

Now, I would find it quite unlikely that the other participants agreed totally with the more vocal ones in the groups. But why did they seem, at times, reluctant to share their own views or refrain from disagreeing? Multiple factors could come into play here, mostly to do with the complex web of interrelationships between groups of people. Conformity is the phenomenon explaining why people may not convey their own beliefs and behaviours in groups, as they try to fit in with what they feel to be socially acceptable¹. But how did people come to the conclusion that those particular behaviours and opinions are necessarily socially accepted ones? Within my focus groups, did my participants defer to those who seemed to get better grades? The ones who appeared to have more friends? The ones who seemed to ‘know what they were talking about’ in terms of climate change?

Reflecting on these numerous influences, which go beyond participating in research, I wondered if we are ever able to state what we truly believe, and how we might find our ‘true’ selves. Hence, in order to try and address these issues of authenticity, I tried a less traditional ‘question and

answer' focus group approach: first, I offered participants stories and case studies of other people's behaviours and asked them for their views and responses, then I encouraged them to share creative responses to the issues that most mattered to them.

The case study section of the focus group told them stories of similarly aged individuals and their climate-related actions. Relying on consensus bias – that they are likely to apply their own beliefs to the actions of others² – it was anticipated that this would give them the opportunity to express their own beliefs (even if unknowingly) without the temptation of social conformity, as to them, they would be talking about the beliefs of others. This brought about a very interesting set of responses. Yet, the tricks of consensus bias are not the only windows into our true selves. Creative tasks are perceived to be a more purposeful and true means of self-reflection, as they come from uniquely personal ideas, therefore allowing one's authentic self to show through them³. The students had the opportunity to voice their concerns creatively, in a way that they felt most comfortable. Some chose poetry, whilst others drew a sketch or painted a picture.

It was through creativity that they could no longer cling to social conformity. There was no longer the safety of the loudest voice to hide behind and they had a choice of different creative mediums, depending on their preferences. Each student expressed their own concerns in their own way. Some showed concern for nature and wildlife; others for communities and self. And whilst their own voices could finally come through, there was an underlying theme that drew them all together: their futures revolved around a multitude of environmental issues ranging from local to international concerns.

Young people's voices in future education research

The youth are concerned. Living in a time of polycrisis, they are surrounded with things to worry about, particularly in relation to climate change. Whilst they don't all know how to deal with the problems around them – what to do, or even what *could* be done – they all, to different extents, have fears related to their future, and that of the Earth. Adding to this pressure is the feeling that these concerns are ignored, and that often only the loudest voices are heard.

Whilst youth activism gives the illusion that the voices of young people are heard, this is not necessarily the case. Our youth are not all loud, nor are they all activists in a public manner, yet they will all inherit the challenges of the world from generations past. These young people are

“As they navigate through life, their roles and identities develop and grow, like a pack of Pokémon cards collected over time.”

expected to live with, mitigate and adapt to the problems of this world in the future, yet we do not try hard enough to listen to what they all have to say. We cannot allow their voices to be quietened or overshadowed. Regardless of the young person's identity in relation to environmental concerns, they all need to have the opportunity to learn more about these issues, express their concerns, and feel that they can play a valuable role in the world in which they live.

For this to happen, young people need to feel able to voice their opinions without fear of transgressing social norms and expectations. If the education system is to meet young people's needs as citizens of a rapidly changing world, then their views must take a central role in the transformation this system so desperately requires. Researchers must continue to listen to young people and give their voices a platform so that they feel valued, heard and able to make a meaningful contribution. So too must the importance of teachers' role in this process be considered: after all, what better researchers are there than the teachers who are already working with young people on a regular basis? As teachers, we know our students, their backgrounds and the educational environment that influences them so, alongside our students, we are ideally placed to be the driving force that will make our education system the best it can be; one which will empower young people to be their authentic selves and equip them with meaningful knowledge and skills that will allow them to have the most success in their future. H

¹ Chakraborty, S. (2020). Conformity portrayed by students in school. Retrieved from: <https://www.psychologists.com/article/conformity-portrayed-by-students-at-school>

² Nickerson, R. (1998). Confirmation Bias: A Ubiquitous Phenomenon in Many Guises. *Review of General Psychology*. 2(2), 175–220. <https://doi.org/10.1037/1089-2680.2.2.175>

³ Goncalo, J. & Katz, J. (2019). Your Soul Spills Out: The Creative Act Feels Self-Disclosing. *Personality and Social Psychology Bulletin*. 46(5), 679–692. <https://doi.org/10.1177/0146167219873480>

TikTok, TikTok:

Is time running out?

BY AYLIN OZKAN

Aylin works in education policy and previously worked as a secondary science teacher in London and the southwest of England. In her spare time she likes connecting with nature by going outdoor swimming and enjoying long, rambling walks in the countryside.

During my time as a science teacher at a secondary school in inner-city London, I felt trapped within a system offering minimal space for self-expression. In a school which, like many others, was geared towards jumping through hoops to pass exams and limiting student discussion because it was 'too distracting' or 'too unfocused', I started to feel frustrated with my job. Where was the focus on current, urgent issues, such as climate change, within our curriculum? I felt like I was constantly bombarding my students with the narrow science content prescribed for me to teach but had no space to explore how *they* felt about the environmental and climate emergency.

Our current knowledge-based curriculum is failing to educate young people in how to tackle future problems. In contrast, Brazilian educator Paulo Freire¹ aptly describes how knowledge could be constructed:

"Knowledge emerges only through invention and re-invention, through the restless, impatient, continuing, hopeful inquiry human beings pursue in the world, with the world, and with each other."

Young people have time and time again expressed that they want a curriculum more relevant to their everyday lives², but this has failed to materialise. We need an environmental focus to be embedded within all our subjects in the curriculum and students should be given space and time to think about climate change and sustainability. With



climate disasters becoming ever more frequent, my concern was that the current curriculum wasn't offering my students the opportunity to explore their future roles in solving this climate crisis, if they wished to do so.

Driven by this feeling of frustration, I decided to run a sustainability project for my STEM (Science, Technology, Engineering & Mathematics) club with a group of Year 8 (12-13-year-old) students. I opted to run a mentoring programme alongside the STEM project with a group of Year 12 students (16-17-year-olds), as I wanted to build peer support across the year groups. I hoped that this relationship would provide an informal and safe space for self-expression and peer learning. Expressions of interest to become a mentor, from what I imagined would be an engaged cohort of Year 12s, were sought via email. After reading so much in the news on youth-led climate strikes, such as the 'FridaysforFuture' and 'Extinction Rebellion' movements, I was confident that the Year 12 students would want to be involved in mentoring and support younger students with their environmental projects. However, from a cohort of 80 Year 12 students, I received only four applications. This caught me by surprise,

as I had anticipated so much more interest. I became keen to use my Master's research project to understand, behind the headlines concerning youth activism, how the Year 12 students in my inner London school were experiencing environmental issues and what might be contributing to the lack of engagement I had observed. I wanted to understand their actual lived experiences of environmental-related education and consider how we as teachers, as well as policymakers, might respond more effectively.

During my research project, I completed several in-depth interviews with Ayse, Elijah, Amira and Keiley, four Year 12 students who had applied to become STEM environmental mentors, all of whom would describe living in areas of high deprivation in inner London. These four ambitious young people all aimed to go to university. In what follows, I share insights into their lives to help understand how they were experiencing the environmental crisis. I will delve into how these young people felt distanced from the environmental activism movement, and how they were turning to social media platforms such as TikTok for help, as they considered their own formal environmental education insufficient. These findings illuminate an alternate view held by young people towards environmental concerns, in which young people feel disempowered and frustrated with the education they've received.

We are not activists

From my research, it was evident that young people are lacking the space to explore environmental issues and environmental activism. When interviewed, participants could identify different types of 'pro-environmental' behaviours they took part in within their everyday lives, such as not wasting paper, using paper straws, gardening, and using public transport. However, they didn't feel that the climate crisis was affecting them enough that they needed to take urgent action. For example, Keiley said:

"People don't think it's as bad here because like, in England, we don't really face that much natural catastrophe."

Young people also felt that there were too many social issues and it was difficult to focus on one. As Keiley bluntly states:

"People are just basically numb to (...) [social] cause[s] now because it's like it's too many problems, man."

The main reason why the young people had decided to take part in the mentoring programme was not because they wanted to 'take action' on environmental issues, but so that they could include it in their personal statement on their university application form. When asked about talking to their friends about environmental issues, Ayse said:

“I don’t think it comes up as much, or it doesn’t really ever (...) things that are seen as more important, that come up, for example, I don’t know, like an upcoming exam or stuff like that.”

I felt disappointed that students were not intuitively interested in environmental issues, nor felt the need to take personal action as I initially thought they would be... But I also felt great empathy with what they shared with me. I could see how their opinions reflected the education system in which they had spent the past 12 years. That is, their success was measured by how many marks they scored in an exam, rather than being judged on their ambition or ability to take positive action for the community. These young people wished to seek out opportunities to earn good salaries, enabling them to have a more comfortable life in the future. The way to this, we tell them, is through exam results and competition with peers, so it is unsurprising that they valued this above all else. Exams, to some extent, are something that they feel they have some control over. These markers of success are seen as a gateway to feeling heard. As Elijah put it:

“if you’re not 35, with a job, graduated and like Russell Group university, they might not listen to you.”

Lack of environmental education in schools

Participants from my study highlighted that our school system is failing to educate young people on environmental issues. If discussions are absent from schools, we are depriving young people from formulating their own thoughts on key global issues, catalysing potential feelings of overwhelm. In the current curriculum, many young people receive an incomplete environmental education. Ayse told me that in their experience, environmental problems are mostly taught within non-compulsory subjects such as geography:

“I feel like if a lot more people are taught about environmental problems, it will become less of an issue. So like, maybe they can start teaching, like, geography more.”

Elijah noted that at primary school they remembered learning about the environment:

“they teach us when we’re like, little kids, when you do, like, gardening (...) and they just expect you to, like, just grow [up] and know what to do.”

There is scope to embed environmental education within all subjects, as environmental issues are interdisciplinary and encompass social, political, and scientific aspects. In fact, this has been raised by researchers as something which needs to be included in more depth within the current curriculum³. Young people should be given the

“The lack of environmental education within schools has meant that young people are now turning to social media platforms to educate themselves on social and environmental issues.”

opportunities to discuss political issues in schools so that they can understand environmental challenges. The current knowledge-based curriculum is limited in what it can achieve in terms of developing understandings of social and environmental justice.

So far, in England, the government’s response to the lack of environmental education within schools has been to introduce a new Natural History GCSE⁴, commencing in 2025. However, this subject will be optional and does not address the problem of environmental education being siloed, rather than embedded across the curriculum. All young people should be able to access an environmental education regardless of whether their school has the capacity to teach another GCSE. For example, schools who are willing to offer the new qualification may not have the capacity to run it due to a lack of qualified teachers in schools, as a result of the teaching shortages. I am concerned that it will once again be the socioeconomically disadvantaged students, such as those participating in my research project, who miss out on an environmental education, as schools with high numbers of socially disadvantaged students in particular struggle to recruit suitable teachers⁵.

Is TikTok replacing traditional teaching?

The lack of environmental education within schools has meant that young people are now turning to social media platforms to educate themselves on social and environmental issues. Social media has essentially become a place where young people can identify with others ‘like them’. Keiley commented:

“TikTok is where I get, like, most of my own thoughts from with, like, womanism and feminism and stuff like that.”

It is a space where grassroots knowledge is freely available for consumption. When asked for their opinions on how we could take action to solve environmental issues, participants did not shy away from suggesting social media is the answer. In an era of influencers, social media is seen as incredibly powerful by young people, as Ayse illustrates:

“There’s social media, because if something happens, and it’s on social media, everyone’s gonna know about it.”

And it can ruin someone's life, or like, make someone rich. So it's really powerful."

If we are not giving young people the opportunities to discuss current, topical issues within their communities or schools, it is unsurprising that they are turning to the digital world to access information and explore discussions on important issues that they hear about in passing. Young people are demonstrating that they are resourceful and have found alternative ways of educating themselves on the topics that interest them.

How effective is TikTok as a teacher?

During the interviews, I wanted to see whether TikTok really was the answer the young people thought it was, so I showed them the 'top 5' videos on TikTok with the hashtag #environment. When the young people watched these videos, they responded in different ways depending on the video watched. A TikTok video with a positive message evoked feelings of happiness within the young people who were being interviewed. However, it is important to note that many videos evoked negative feelings such as sadness, as they were pedalling the doom-and-gloom narrative which can accentuate feelings of hopelessness towards environmental issues.

After watching a TikTok video on the lack of recycling at a fast-food restaurant, Keiley stated:

"So like it kind of makes me feel like we're doing all this for nothing (...) if, like, even places like fast food organisations and chains that people use them constantly aren't even doing their own part."

After watching the videos, the young people all commented that we are living in a capitalist society which values economic gain over environmental justice. They talked about believing that it was the large corporations who should be responsible for dealing with the climate crisis. They felt, as individuals, that their hands were tied:

"I mean, it just shows that everything's about money. They don't even care about the planet."

This is concerning, as by leaving social media to teach our young people about our shared planet, we are failing to inspire young people to have meaningful conversations about solutions and further pushing them into despair about the scale of the problem. So where does this all leave us?

Listening to students

Young people deserve a seat at the table and the opportunity to help steer their own education. Rather than the doom-and-gloom narrative, environmental education

"We need a genuine step change in education away from the current hyper-competitive paradigm."

should focus on empowering communities and giving them space to explore solutions for their local areas.

As a society, we must accept that social media is here to stay in educating our young people and give careful consideration to what young people are being exposed to on these platforms. Within the education community, we can ensure that we are publishing factually relevant information on these platforms, which have a positive focus.

Finally, young people can be apathetic about the environment. As my study indicated, this arises in part from the absence of space in the curriculum to develop critical thinking and discuss environmental issues through a political lens. To tackle this, policymakers need to push for a reform of the curriculum to ensure that environmental education has a cross-disciplinary focus within schools and that its implementation is embedded within school policies. We need a genuine step change in education away from the current hyper-competitive paradigm, towards a more collaborative, cross-disciplinary approach in which young people feel they can bring their skills and experiences to the table and develop them within educational settings. **H**

- ¹ Freire, P. (2017). *Pedagogy of the Oppressed*. Penguin Random House. (p.45).
- ² ASPIRES Research. (2022). ASPIRES 3 Project Spotlight 2: *"Make it more relevant and practical": Young People's Vision for School Science in England*. London: IOE, UCL's Faculty of Education and Society.
- ³ Glackin, M. A., & King, H. (2018). *Understanding Environmental Education in Secondary Schools in England: Report 1: Perspectives from Policy*. King's College London.
- ⁴ Department of Education (DfE). (2022, April 21). *Sustainability and climate change: a strategy for the education and children's services systems*. Retrieved from: <https://www.gov.uk/government/publications/sustainability-and-climate-change-strategy>
- ⁵ Allen B., & McInerney L. (2019). *The Recruitment Gap: Attracting teachers to schools serving disadvantaged communities*. The Sutton Trust. Retrieved from: <https://www.suttontrust.com/our-research/teacher-recruitment-gap/>

Reflections from a youth perspective

BY SAMRENA ANTWI

Samrena is a recent undergraduate with an interest in climate and youth-led community activism. Her passions have led her to be a part of the London Wildlife Youth Board, where she and the team discuss ways to encourage young people, particularly those from low socio-economic backgrounds, women and disabled people, to grant themselves permission to see themselves in wildlife spaces, for example, conservation and education.

The first time I heard about climate change was from my Year 4 teacher, Ms Palmer-Jones. I was nine years old and I remember her explaining that, as a human race, we needed to shift our way of life to more sustainable practices if we wanted to survive as a species. This was a huge wake-up call to me, and I learnt about the importance of individual action, such as recycling and upcycling, to help towards slowing environmental change. After this though, my secondary school and university education offered little in the way of environmental learning about what was at stake for my own and future generations, except for the occasional lessons in biology and geography. On reading Aylin's and Rasha's essays on young people's views of the climate crisis, it therefore struck me that my experiences were not unique and, rather than my school being at fault, that the inadequacy of environmental education is a result of a lack of national policy or guidance, which is impacting young people like me up and down the country.

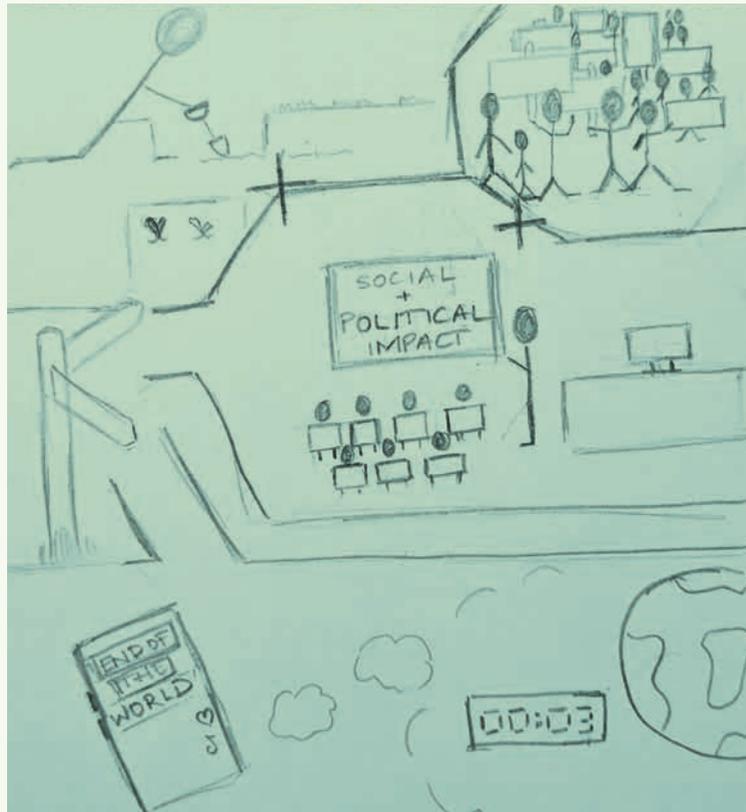
Aylin's essay, *TikTok, TikTok: Is time running out?* really resonated with me, as it does often feel as though there is a huge clock counting down to a deeply unsettling future. Due to the lack of formal environmental education, the

“Whilst I am a recent university graduate, I have felt uneducated and unqualified in the most important area of our lives – that is, how to protect our Earth.”

those from different socio-economic backgrounds), we are harming future generations.

Similar to the young people in these essays, I have felt ‘disempowered and frustrated with the education’ I received. Whilst I am a recent university graduate, I have felt uneducated and unqualified in the most important area of my life – that is, how to protect our Earth. In wanting to educate myself, I have often listened to the loudest voices, thinking they were the most knowledgeable, and this has led me down a path of doing what appears to be the ‘right’ action, whilst still looking around my community and seeing that the social issues that matter to me aren’t being addressed. Both chapters highlight the need for changes in policy to support a holistic environmental education which encompasses a wide range of environmental and social issues, and allows for evidence-based, accessible and inspiring discussions to be woven through the school curriculum.

So rather than continuing to follow the loudest voices, I have stopped worrying about taking the ‘right’ course of action as prescribed on social media and instead looked closer to home, to consider the ‘IRL’ (In Real Life) communities and related social issues that are on my doorstep where I can connect and possibly make a difference. Being intentional about finding these spaces has helped take me out of the doom-and-gloom algorithm and into an environment where I see tangible changes being made and the necessary workload being distributed. I have also become part of groups that focus on and advocate for bringing young people from low socio-economic backgrounds into nature and wildlife. These are spaces my time in education did not introduce me to, and in which I do not often see myself represented. This has helped me create a more emotional connection to the planet I am trying to save because, as one of Aylin’s participants stated, “People don’t think it’s as bad here because like, in England, we don’t really face that much natural catastrophe”. Having a deeper connection to the environment helps me to appreciate what we do have and see what we are losing – even if it seems irrelevant to my day-to-day life. This in turn magnifies what others around the world are facing. Like some of the young people in the essays are calling for, these groups have also increased my knowledge about the environment and have given me a space where my voice is heard and needed. We need change and we need it now!



notion of this clock and its associated doomsday-driven rhetoric are being produced and compounded by the main shared place we young people get our news: social media. As Aylin highlights, this news source is deeply problematic: rather than providing trustworthy information, where data and evidence is fairly explained, in-depth and balanced, outlining possible adaptations and mitigations, the algorithms used by TikTok and Twitter result in users receiving a high volume of reactionary content, presenting one-sided, saddening imagery and reinforcing feelings of futility and hopelessness. As we learn from Rasha’s essay, *A question of authenticity*, without proper opportunities to explore the complexities of the climate crisis and consider them in light of our own experiences and emotions (or to have time to consider others’ perspectives, particularly

Doing less to 'achieve' more:

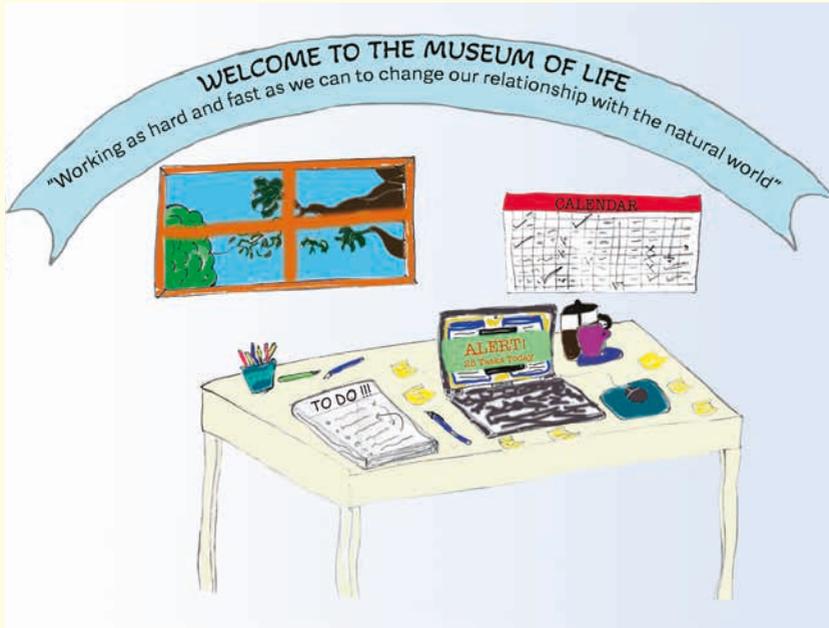
Making the space for transformative environmental education

BY SOPHIE PERRY

Sophie is from rural Wales and lives in London. She has a background in non-formal education and is currently studying for her PhD in environmental education at King's College London, funded jointly by the Economic and Social Research Council and the Rosalind Driver Scholarship Fund.

It has become clear to me, as I study for a PhD while juggling multiple jobs, that I, and so many others, are functioning in the midst of what Tricia Hersey refers to as 'grind culture'. Grind culture is a value system in which productivity is vital and more equals better. This stems from Western societal foundations in capitalism, colonialism and industrialisation which see the Earth and the more-than-human beings we share it with as an expendable set of resources. From these resources, we are expected to maximise our outputs. This applies even if those outputs benefit some, while having a direct cost for others. Such ideology can be identified in the way we use land for farming animals and plants, the way banks 'invest' their money in carbon-releasing industries, or in the way you might think about the very time in which you read this chapter. For instance, there might be a voice in your head asking: Is this a good use of my time? Could I be doing something more productive?

The result of this dominant extractive ideology is a society of perpetually busy and highly stressed human beings whose need to constantly produce keeps them distracted from the intersecting environmental and social



crises which, to a large extent, are caused by that very ideology. Quite simply, our dominant modus operandi is unsustainable, both for our environments and ourselves. While our extractive relationship with the natural world results in pollution, climate change, biodiversity loss and ecological collapse, humans also suffer. Our health is impacted both directly and indirectly by this skewed value system. While the pressure of this ideology on us as individuals might result in stress and mental illness, the aforementioned environmental issues such as pollution and global heating go on to pose significant physical health risks. It's clear then, that addressing the crises that threaten our futures is necessary and doing so will entail a very real and drastic transformation. I suggest that this transformation might even include the way in which we frame the problem, and the pace at which we approach and engage with it.

Education is an important lever in addressing these environmental and social crises. In 2022, the UK's Department for Education (DfE) released their sustainability and climate change strategy. Here, they set out the need for the "education sector to play its role in positively responding to climate change and inspiring action on an international stage"². Following this clear directive for education to do its

"We must challenge these very systems that keep us frantically checking off our to-do lists while the real problems go unaddressed."

part, and given the contextual backdrop I propose above, I want to explore how educational organisations can play a part in the transformative change required to address the climate crisis. Are environmental education organisations, which also exist within our shared context of unsustainable productivity, able to challenge our destructive norms? I will explore this question through two stories of the same environmental education programme. The first story I tell is a characterisation which pulls together a number of 'real' examples from the case studies I worked with during the data collection stage of my PhD. This composite example is informed by observations and interviews that I conducted during my PhD, while the second story is completely imagined. My intention is to contrast the two stories to help illuminate how the dominance of grind culture permeates the very programmes that attempt to challenge it to effect change. I argue that this leaves us with a question around how we can create space within educational organisations to do less, in order that we are able to realise change more deeply.

First, I will introduce the education programme which will serve as a case study. The programme in question takes place in a non-formal education context, which we will call the Museum of Life. Consisting of a small exhibition space and an outdoor nature reserve site, the museum explores the natural world, ecology and climate change in its programming. This case study looks at a new programme, the Youth Panel, in which a youth advisory board is introduced to better inform and direct the museum around what young people want, need and expect from this institution.

Two months before the Youth Panel is due to start, I met the educators to discuss what the new programme would entail. The educators were excited about the opportunities the Youth Panel presents them and their institution. They felt strongly about the central role that youth have in these issues, and the ways in which they can work with young people to effect change:

“We need to get that demographic that usually doesn’t engage to engage with the museum. Because if we want to respond to the key issues, we need young people to be invested and interested in what the museum have to say.”

“... the whole point is the museum, we need to understand that audience more and there’s no better gatekeeper than that audience and the audience itself... It’s that idea of co-creation of ideas and development of content and plan-and programming and stuff like that.”

“... it’s so essential now to involve the public audience in the actual processes of change.”

At this point, they are still in the process of establishing and planning the panel, and we agree to talk again two weeks before it officially begins. In the meantime, the educators are exploring how different teams within the museum which might contribute to, or benefit from the Youth Panel.

Story One: What happened

The next time we meet, two weeks before the programme begins, the Youth Panel has been planned out thoroughly.

The panel will consist of twelve young people from across the UK, who will meet online once a fortnight for two hours between 5.30 and 7.30pm on a weekday evening. The panellists are currently being recruited – one or two young people from Wales, Scotland, Northern Ireland and all four corners of England will ideally be referred directly by institutions and nature reserves local to them. The national reach of participants is intentional and responds to a priority of the institution to better connect with more diverse audiences. While this was not necessarily a key part of the original conception of the panel, it has been identified as a good opportunity to tie into this priority area.

The panellists themselves haven’t yet met anyone organising the programme, and since they are referred to join, the educators don’t have much information about their interests, but the task for the panel has been set regardless. The plan is that, during the panel programme, the young people will make some social media content, which will then be shared on well-known wildlife social media accounts, tagging this project. This will enable the institution to connect with young people on social media, as well as to raise their own profile, which is important for the Museum of Life in general, and the Marketing Team in particular, and is considered to tie in closely with the panel since they will be working with young people.

Some key outcomes for the programme have also been drawn up. These include 1) ensuring the panellists have an

“Quite simply, our dominant modus operandi is unsustainable, both for our environments and ourselves.”

enjoyable time, 2) connecting them to nature, 3) upskilling them in digital content creation, 4) influencing their feelings towards and habits in the environment, 5) supporting them to build careers and 6) empowering them to take action to protect the planet. A team of external evaluators will be conducting focus groups and questionnaires to check whether these outcomes are met and this will be reported to the project funders.

The outline of each of the twelve sessions for the programme is nearly finalised, with icebreakers, guest speakers, workshops, consulting on museum projects and presentations of the panellists’ social media videos. The planned activities fill up all but one of the weeks’ sessions. The week which has not yet been planned reflects the educators’ intentions, expressed to me in the initial interviews, that the programme should respond to what the young people want to get out of it, so this session will be steered by them:

“The last part of the program has been left open for our panellists to choose what they want to discuss. And then we’ll cater the program based on that. I always prefer that whatever content we’re delivering and whatever kind of program we’re designing is based on what people say that they want.”

Story Two: What could have happened

The next time we meet, two weeks before the programme begins, the youth panel has been planned out thoroughly.

The panel will consist of twelve young people from across the UK, who will meet online once a fortnight for two hours between 5.30 and 7.30pm on a weekday evening. The panellists are currently being recruited via a national open application process. The wide geographical reach of participants is intentional and responds to a priority of the institution to better connect with more diverse audiences. While this was not necessarily a key part of the original conception of the panel, it has been identified as a good opportunity to tie into this priority area. The educators who led the development of the panel were wary of attempting to deliver on multiple different objectives at once, as they were aware that this might detract from the purpose of the panel, to learn from young people. Thanks to an institutional approach whereby staff reflect on their process while planning programmes, the educators were able to voice their concerns. Following this, support from their wider team meant they were able to negotiate that if the panel contributed to building a diverse audience, they could have autonomy over other aspects of their programme. This removed pressure on the educators to

“What would our programmes look like if we negotiated more space to do things differently – to explore, to unlearn damaging habits and break free from restrictive systems, as well as to teach and produce?”

deliver on other strategic objectives, such as focussing on social media use, during the programme.

As such, the specific focus for the panel has been left open, but the recruitment process, which consisted of applicants making a one-minute introduction video, has been a chance to get to know the young people and so the educators have some ideas about what they might enjoy. Nevertheless, they want to leave it to the second or third session until the participants decide on a focus or action for the panel, so that everyone has a chance to settle in, feel comfortable and learn about the institution and the possibilities within it beforehand.

Just two key outcomes for the whole programme have been drawn up: that the programme 1) learns from and, 2) responds to young people. These are subjective, and so will be reflected on by the young people and educators at the end of the programme. Following this, the external evaluators will support them to find a way to effectively share these reflections with the programme funders.

The outline of each of the twelve sessions for the programme is finalised: each session will start with ten minutes of introductions and warm up activities, then there will be 45 minutes of activity, a short break, followed by up to 50 minutes of open discussion which will be used to help plan the activity for the following week. For the first week, some icebreakers have been planned for the 45 minutes of activity. The plans for future weeks will be decided as the programme progresses.

What can we learn from two stories of one case study?

In this chapter I wanted to explore how educational organisations can play a part in the transformative change required to address the climate crisis, and how our dominant societal context might affect this ability. When I look through the list of the defined outcomes in Story One, it becomes clear that the context of endless productivity does indeed deeply affect these types of programmes. I

argue that it detracts from their genuine potential. How can we expect educational organisations to play a part in deep transformational change when they are kept busy attempting to deliver so many results from one short-term environmental education programme?

In Story One, a programme which hasn't yet started, but was created with the intentions of learning from and working with young people to inform the institution's approach to programming, has been almost entirely planned without the panellists' input. This includes a list of outcomes that predetermine how the young people will be influenced by the programme.

Through interviews with educators, it was clear that they approached the programme with a vision that it would be co-created, a chance to learn from and try something different with young people. But along the way, it seems to have been embroiled in the standard organisational and societally reinforced processes of 'planning': Targets had to be set, otherwise how would they know the programme was successful? And then, how would they report their success to the funders? Other teams were working on similar topics and could feed into this project, and maybe some of their 'deliverables' could get ticked off at the same time too. Why not kill two birds with one stone? After all that would be more efficient, more productive.

Interestingly, when reflecting on the programme afterwards, the educators explained that they did recognise that the programme had drifted from its intentions, but due to time, budgets and pre-determined briefs, changing tack was no longer an option:

“I really missed having like genuine, authentic dialogue, where people actually, you know, where you could dig deeper into a subject and learn from other people's experience. We tried... it just—there was never enough time for like, proper discussion and proper dialogue.”

“Whoever did show up, it was difficult to facilitate something that was meaningful, because of our, you know, because of external circumstances. And then once we got past that hurdle, it was too late to go back to these deeper dialogues, because now we had this, like, task that was looming in front of us. And we needed to just start responding to the briefs, if that makes sense.”

Mechanistically, and despite a genuine recognition of the importance of creating space for deeper dialogue, the programme had morphed away from a space for co-creation. Instead, it became a jam-packed activity schedule with a long list of deliverables, and minimal space to learn from young people. This suggests that an awareness and resistance to this culture at the educator

level is not sufficient to challenge or minimise the dominance of grind culture. Educators themselves exist in organisations, which in turn exist within societal norms. So, challenging these norms requires a collaborative and wide-reaching effort. It is not something that one programme, delivered by one or two educators can tackle alone.

What does this say about environmental education organisations, grind culture and the climate crisis?

In comparing the imagined story with the ‘real’, it becomes clear that this environmental education programme is trying too hard, to achieve too much, all at once. Considering this programme in the context of our ‘grind culture’, I suggest that wider cultural habits, echoed in the organisational context, have forced the educators to fill as much space as they can within the programme. They have filled in (almost) all the blanks to produce as many measurable outputs as possible, as quickly as possible. Since within such a value system, any space within a programme becomes a hole, a lack of, a zero in value, as opposed to an integral part of a process and a chance to reconsider and reorganise priorities. This is completely understandable, perhaps even unavoidable, if planning a programme from the perspective of maximised productivity, or reporting to those who value this above all else. Considering the ubiquity of grind culture, I suggest this example is not the only one of its kind.

Imagined Story Two plays with the idea that, with the right support, we might change the way we see empty space and recognise it as valuable in its own right. In order for environmental and sustainability organisations to genuinely contribute to the transformation required to address ecological and social crises, we might consider drastically simplifying and reducing the number of goals we set. But more than this, perhaps environmental education – and, I might suggest, education more broadly – will never flourish if strategies of ferocious planning, rapid action and maximised productivity, which mirror the modus operandi of grind culture that contributed to the environmental crisis, persist. We must therefore challenge these very systems that keep us frantically checking off our to-do lists while the real problems go unaddressed.

The school strikers’ mantra ‘system change not climate change’ reminds us that we do indeed require a deep and qualitative change. That change is not just what we want to get out of environmental education, but also perhaps how we go about realising environmental education. What would our programmes look like if we negotiated more space to do things differently – to explore, to unlearn

damaging habits and break free from restrictive systems, as well as to teach and produce?

Our outcomes might fit less neatly into a list, but they might also be more real, more tangible and demonstrate a change within the very organisations we work in – not just changes which are directed out at the audiences we serve. Creating space for change in this way is challenging: it is not a task for one individual but is bound up in organisational structures, long-term planning, funding bids, staff support, longer timelines and purposeful periods of reflection and uncertainty.

So, I’ll finish by setting a challenge for us collectively: can we experiment with doing less, in order to ‘achieve more’? Can we use the influence we have in organisations to create, hold (and defend!) space to unlearn, to explore and to rediscover? This alternative approach, with fewer predetermined outcomes, might open up the space for a longer-term fundamental change, that enables learning from and with communities. H

¹ Hersey, T. (2022). *Rest is Resistance*. Aster, London, UK.

² Department of Education (DfE). (2022, April 21). *Sustainability and climate change: a strategy for the education and children’s services systems*. Retrieved from: <https://www.gov.uk/government/publications/sustainability-and-climate-change-strategy>

Are universities doing enough to embrace Education for Sustainable Development?

BY ANGELINA SAMANYA

Angelina is a London-born science content writer with varied experience working in schools, with students from nursery to secondary. She enjoys witnessing the transformative power of engaging students with science and the environment.

Despite growing up in London, the biggest city in the UK, I have always lived in close proximity to green space and felt a deep affinity to nature. This has had a defining influence on me, which has at times been unconscious, but has shaped the way I live and interact with the world around me. I'm grateful for this daily local exposure to the natural world, which has been important for my own personal and social development, but I am becoming increasingly aware that this is an experience I do not share with everyone. In fact, one in five people in England do not have access to green space and the benefits that come with it'. With environmental and sustainability learning playing only a minor role in the National Curriculum of England and Wales, those who lack access to nature have frighteningly few opportunities to connect with, be aware of, and address our environmental troubles. In this sense, I feel like one of the 'lucky ones'; my close proximity to natural spaces *and* my experiences in education have enabled me to develop a connection with (and concern for) our environment. But this is not enough; it is not sufficient that only those of us who are privileged in our experiences with nature and education should be

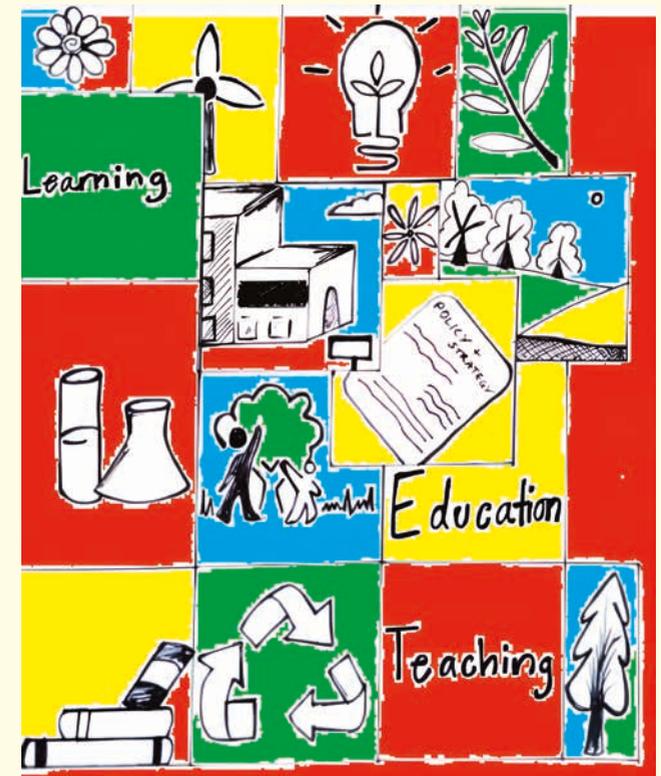
able to engage fully with these issues. The inequality and injustice inherent in the accessibility of nature and environmental knowledge infiltrates our society, and affects whether communities feel empowered to take action to protect themselves and their environments. In this climate, it is crucial that we *all* orient towards environmental action and change for a better world, not just those of us who are 'lucky' enough to be exposed to these concerns.

For me, a key part of my educational (and environmental) journey has been university. Studying as both an undergraduate, and later as a postgraduate, my experiences within academia have helped me to reflect on, reconnect with, and build on the experiences of nature I had growing up. A key part of this was the Environmental Education: Sustainability and Society module within my MA in STEM Education. Inspired by my own return to higher education, and the focus of this module, I designed my Master's research project to explore issues of justice, environmental and sustainability issues, and the role of educational institutions, namely universities. In this chapter I share some of the work of this research project, which focused on exploring and analysing how universities contribute to addressing environmental issues, through Education for Sustainable Development (ESD).

Universities play an increasingly important role within our society as almost 50 per cent of young people across the UK now attend them, with the global number of institutions also increasing. Hence, I wanted to understand: Are universities doing enough to embrace ESD? Throughout the chapter I will share why I have focussed on the concept of ESD, why universities are such an important place to consider this, and whether the universities I explore within my research are doing enough to embrace the meaning and aims of ESD in their organisations.

What is Education for Sustainable Development and why does it matter?

First introduced in the early 2000s, ESD is based on the idea that tackling human-induced climate change must be done by "addressing environmental, social and economic issues in a holistic way"². Though the concept is now around twenty years old, the idea of ESD has remained relevant and is frequently referred to in both policy and research. The United Nations Educational, Scientific and Cultural Organization (UNESCO) defines ESD as education which "allows every human being to acquire the knowledge, skills, attitudes and values necessary to shape a sustainable future"³. For me, the defining aspect of ESD is its emphasis on the interdependence of social, economic,



and environmental issues. Through this tripartite focus, ESD promotes social and environmental responsibility, critical thinking, creativity and problem-solving skills.

However, there is concern among educators and researchers alike that environmental and social justice are incompatible with continuous economic growth. In prioritising economic perspectives alongside social and environmental factors, these critics would question whether ESD can sufficiently challenge our current relationship with the environment. Alternative approaches do exist, such as Climate Change Education (CCE) and outdoor education, which offer different conceptions of the role of education in the face of climate and environmental issues, or perhaps focus more on strengthening our relationship with the environment through learning outdoors. There is some degree of overlap between these alternative approaches and ESD, as they each recognise the risk of environmental and climate crises, the value of the natural world, and

“As an undergraduate and postgraduate student, I became increasingly aware of the significant role and influence that universities can play in driving social change.”

are concerned with enabling us to “persist, sustain, and endure” within it“. I will leave the other approaches aside for now, as my focus on ESD in this work is due to the traction and attention it has received both internationally and nationally. As seen in the definition, the reason for this might be due to how it is able to complement our existing economic and political systems whilst inviting us to reflect deeply on them. Importantly, the holistic definition of ESD, where environment, economy and society are on an equal footing, means that as a concept, it could be integrated across all aspects of an institution from the curriculum to extracurricular activities, on campus and off campus.

ESD is not without its challenges: as an ambitious concept it is sometimes seen as aiming at an unattainable goal. It might often be considered a niche interest for a minority of individuals who are interested in climate and environmental issues. But to me, this question of interest is inherently linked to environmental and social justice; I believe that sustainability *needs* collective action and that, in order to achieve this, everyone should have equal access and opportunities to learn and develop the necessary skills. ESD – and other forms of environmentally oriented education – will remain niche as long as access to them remains patchy and unfairly distributed, which brings me on to why universities are particularly important places to enact ESD.

The relationship between universities and Education for Sustainable Development

This specific importance of universities in applying the concepts – and furthering the goals – of ESD is not a recent consideration, but one that has been recognised for nearly a decade, since UNESCO’s Shaping the Future We Want report, which stated that “the reach and potential for influence of the Higher Education (HE) sector in moving the world to sustainable development is significant.”⁵

This potential is especially true for the UK, which has a network of over 160 universities spread across the country.

Representing different cultures, identities and geographies, these institutions all have the potential to adopt a unique ESD approach to reshape and promote a sustainable and just shared future.

UK universities have an influential global reach, through research production, collaborations, and their historic reputation, but are no longer just spaces that represent the academy. Today, universities have moved beyond their traditional role of creating objective knowledge and have become centres for community engagement and social responsibility in the societies in which they operate. Increasingly, UK universities are influencing, and being influenced by, their local communities, as they involve them through outreach, research engagement activities and alternative education, as well as training provision for nearby residents. Given the important and unique role universities play, both as part of a global network and as local actors, their role in designing and delivering ESD is valuable for potential change.

I have experienced this potential first hand: as an undergraduate and postgraduate student, I became increasingly aware of the significant role and influence that universities can play in driving social change. I had access to a wide range of educational opportunities, including elective and compulsory modules, guest lectures, optional seminars, and extracurricular societies. These experiences allowed me to engage in environmental-related conversations and discussions both within and beyond the institution. I enjoyed collaborating with diverse minds to come together to address local and global societal and environmental problems.

Despite these recent experiences as a student, I still question whether universities are fully achieving their unique potential to contribute to the realisation of a sustainable future. Again, I became aware that my experience might be one of ‘luck’ when I noticed that some of my friends and family who attended different universities didn’t have the same opportunities to engage in these

discussions. This is unfair and unsustainable in itself. Climate and environmental issues impact everyone, and education is an important driver for how we view ourselves and the world around us. All universities must therefore embrace the practice of ESD in their institutions.

My research process

To answer the question of whether universities were doing enough, my study analysed the educational policies and strategies of eight London-based universities to understand how they prioritise environmental, social and economic aspects of ESD and, crucially, whether they considered environmental and social justice within this framework. I made the choice to study London-based universities as this reflected my own experiences, having lived and studied in London. I used the research as an opportunity to question what the universities in my home city were doing to support the sustainable development of my area and community.

To select these eight universities, I used a UK university ranking system based on sustainability ratings.⁶ The approach used thirteen categories, of which education was one. I then analysed the policies of these universities, which I found on their own websites, to consider the nature of their ESD work.

I was especially interested in policy and strategy because I believe that it is an important tool for leading and directing wider organisation change, a bit like the North Star. Within a strategy, there is a shared sense of responsibility and accountability which creates shared expectations and consistency. This is important for dealing with the complexities of reimagining a more sustainable, socially and environmentally conscious world, which is ultimately a task that must be shared, not siloed.

What I found

My study reinforced my concerns about the patchy nature of how ESD is adopted within different institutions. Despite all existing within the same city, the policies were wildly different, demonstrating the way in which access to this form of education is unevenly distributed and not accessible to all.

From the eight universities I selected, one did not have a policy or strategy relating to ESD. Instead, its sustainability strategy focused on infrastructure such as waste management, sustainable supply chains, and energy and water usage. Crucially, though, there was no mention of the role of education in sustainability. By only focusing on the practical aspects of sustainability, the ways in which

“Inspired by my own return to higher education, I designed my Master’s research project to explore issues of justice, environmental and sustainability issues, and the role of educational institutions, namely universities.”

students at this university can engage with these issues – and become a part of their resolution – are limited. With ESD not considered within teaching and learning, students, staff and the wider community are excluded from learning about, engaging with, and embedding ESD at this institution.

Disappointingly, two further universities did not fully adopt all three aspects of ESD, neglecting to focus equally across all three of ESD tenets – society, environment and economy. That is, for example, economic gains, rather than gains for the planet, were valued when participating in environmentally friendly action. Further, language such as ‘green economy’ was frequently used with limited discussion as to biodiversity and community gains. This research helped me to understand that even though a university has an ESD policy and strategy, it doesn’t necessarily mean that a comprehensive approach to ESD is adopted. This undermines the holistic aims of ESD, where environment, economy and society should be included equally.

The remaining five universities I explored had policies which referenced environmental and social justice concepts. Surprisingly, a third perspective on ‘cultural justice’ appeared from one university. This aspect is sensitive to cultural norms, values and practices and recognises how different cultures already understand and interact with the environment. This interesting inclusion offers an additional way for universities to adapt ESD policy and strategy which is more meaningful, responsive and sensitive to their communities. And as a concept, cultural justice supports the idea that individuals and communities should have equal access to participate and engage in sustainable education.

In summary, three of the eight universities I explored did not have a consistent ESD policy and strategy which gave equal weight to all three perspectives of ESD (economic,

“It is clear from the findings that not all universities are on the same page when it comes to addressing the challenges of climate change and environmental issues through ESD.”

social, and environmental). The sample of universities are not equally promoting innovation and knowledge which is sensitive to all aspects of sustainability. This is important if we want to create a society which is aware not only of the economic aspect of sustainability, but of the need to promote a deeper level of understanding, thinking and acting in a socially and environmentally sustainable way.

Where does this leave us?

Given the complexity of the challenge, I am not surprised that universities evidently struggle to develop a comprehensive approach to ESD. Each institution is part of a wider Higher Education landscape, yet is made up individually of diverse networks of people with varying levels of sustainability knowledge and understanding. However, difficult as it may be, embracing a holistic ESD policy and strategy could help to balance out this diversity and support the teaching and practice needed to create positive social change over a short, medium and then longer term plan.

It is clear from the findings that not all universities are on the same page when it comes to addressing the challenges of climate change and environmental issues through ESD. Some offer a more holistic policy while others are narrow (or absent) in their focus. This is quite surprising, considering that the eight universities within this study are based within a similar context, and suggests that diversity in ESD strategies might also exist in universities beyond London and beyond the UK.

So where does this leave us? As one of the largest sectors in the world, with an enviable global network, universities could be leading the way and demonstrating how transformative fair and widespread access to education which addresses environmental issues can be. Higher Education Institutions have the potential to create an ecosystem of shared resources, pedagogical expertise

and outreach that can better support our understanding of our environment within the current challenges of climate change, biodiversity loss and pollution. It should be important for all universities to prioritise how they communicate ESD within their policy and strategy, as this guides and influences how universities can support their students, staff and the wider community to feel empowered to act and behave sustainably. Equitable access to ESD should not be left to luck, but should be something all universities help to embed across the communities they serve. 

- ¹ Friends of the Earth (2020). *England's Green Space Gap*. Retrieved from: <https://policy.friendsoftheearth.uk/download/englands-green-space-gap-full-report>
- ² United Nations (UN) (2023). Education for Sustainable Development. Retrieved from: <https://www.unesco.org/en/education/sustainable-development>
- ³ United Nations (UN) (2023). *Education for Sustainable Development: building a better, fairer world for the 21st century*. Retrieved from: <https://unesdoc.unesco.org/ark:/48223/pf0000216673>
- ⁴ Stephens, J., Hernandez, M. E., Román, M., Graham, A. C., Scholz, R. W. (2008). Higher education as a change agent for sustainability in different social contexts. *International Journal of Sustainability in Higher Education*. 9(3), 317-338 (p.319). <https://doi.org/10.1108/14676370810885916>
- ⁵ UNESCO (2014). *Shaping the Future We Want*. Retrieved from: <https://sustainabledevelopment.un.org/content/documents/1682Shaping%20the%20future%20we%20want.pdf> (p.114).
- ⁶ People and planet (2023). University League table: How sustainable is your university? Retrieved from: <https://peopleandplanet.org/university-league>

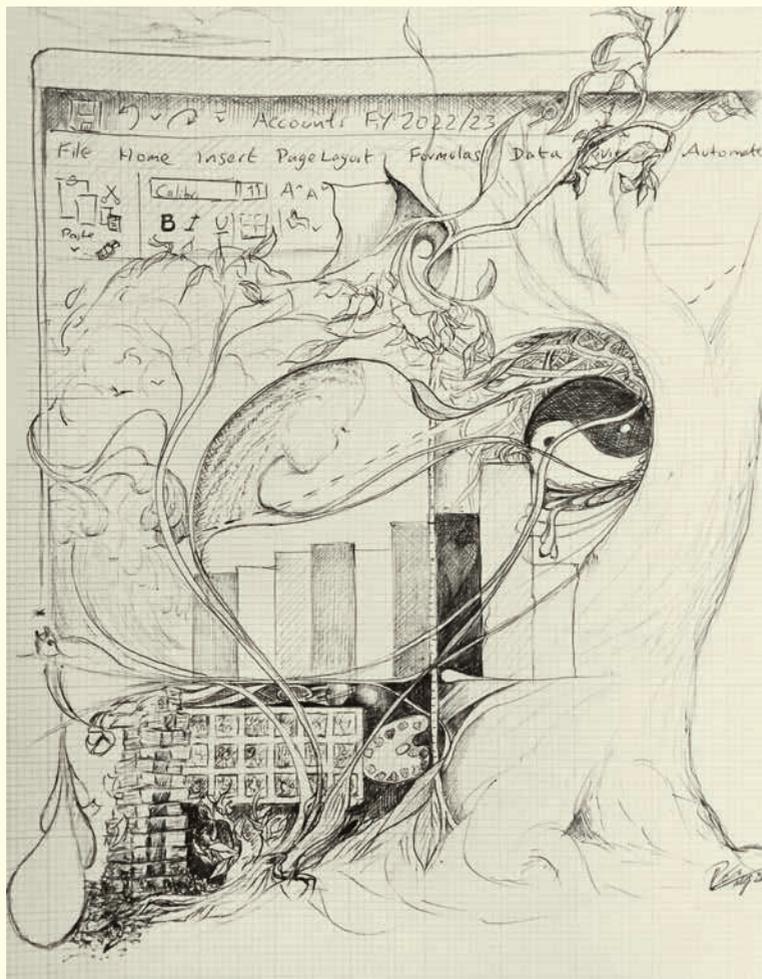
Reflections on organisations from an academic's perspective

BY PAUL VARE

Paul's various roles have always focused on learning and sustainability. After brief stints teaching, he turned to community development in East Africa. He helped draft the UN Economic Commission for Europe (UNECE) Strategy on Education for Sustainable Development (ESD) and worked subsequently on UNECE's ESD indicators and competences for educators. Today he serves as Academic Advisor to the UNECE Steering Committee on ESD, is a Trustee of the National Association for Environmental Education and a member of the Adult Advisory Board of the youth campaign *Teach the Future*. In his day job Paul leads ESD-related research projects and runs the EdD programme at the University of Gloucestershire.

The two chapters in this section appear to be pursuing the same goal – an organisation that takes the multiple ecological crises seriously and which helps all members of society to consider their response to these. Beyond their shared goal, the chapters come from different angles. Angelina feels that we are not doing enough of one thing while Sophie's concern is that we are doing too much of everything else. This can present a double bind; we need more Education for Sustainable Development (ESD) while simultaneously relieving the burdens of the performative culture that characterises many of our institutions. On reflection, perhaps one chapter holds the seed of a solution for the other.

This is reminiscent of the two-sided concept of ESD 1 and ESD 2,¹ where ESD 1 is about learning *for* sustainability; as Angelina suggests, it “supports the teaching and practice needed to create positive social change”. ESD 2, meanwhile, recognises that such efforts tend to “exist within societal norms”, as Sophie reminds us; it interrogates those norms rigorously, asking if this is the best we can do. ESD 2 is learning our way forward or learning *as* sustainability. This is not an either-or situation; rather, ESD 1 and 2 are two sides of a whole, turning in a Yin and Yang relationship.



“We need to play the game... Yet ‘the game’ also exemplifies the problem.”

As I work in a university, I can say a little about these institutions. Universities, like all organisations, face sector-specific challenges. One of these is that their core business is conducted by people who tend to be fiercely protective of their academic freedom. Instructing academics to incorporate ESD can be a fraught business, although less so nowadays as the seriousness of our predicament becomes more widely understood. Academic freedoms also have their limits; they are tolerated insofar as they help to register performance against an array of metrics used

to track inputs, outputs, impacts and other pre-defined outcomes. Performance equates to money and, green prizes aside, there is only one bottom line. Regardless of the size of the institution, the chief concern of the neoliberal university is that we are all singing from the same spreadsheet.

On the one hand we need to play the game, and there are plenty of extrinsic drivers to support this, from the People and Planet league table to the Green Gown Awards. Yet ‘the game’ also exemplifies the problem; for example, it can reward those who pursue corporate (and self-) interest over those of their colleagues. Universities do, however, provide a source of hope as seedbeds of critical thinking. This may not solve the double bind completely; after all, if we push too hard, our careers are on the line. But push we must, for there are always cracks of possibility. Wicked or intractable problems might be resolved, if never solved; the Yin-Yang melding of ESD 1 and 2 is a process not an event.

Angelina stresses the potential of universities to change society, yet the relationship is reciprocal. If society is shifting towards more sustainable modes of development, then the purpose of universities – and education at all levels – will shift too. Currently in England, we are overdue for a swing of the pendulum. Bizarrely, the Government measures the *quality* of higher education courses by tracking the status of jobs and the income secured by their alumniⁱ. You are what you earn, not what you learn. For the sake of all our futures, our task must surely be to work towards the day when a key question asked of any student project (and of their future employment) will be the extent to which they contribute to a regenerative society. The same might be said for any organisation.

A legitimate response to Sophie’s workload concerns might be to develop criteria for contributing to the quality of life and/or life on Earth rather than simply making more money. Learning to do a little less may yet become a crucial skill for life, allowing ourselves time to stop, to listen to each other and, collectively to learn our way forward. ^H

ⁱ This is part of the Projected Completion and Employment from Entrant Data (PROCEED) that HEIs are expected to report to Government.

¹ Vare, P., & Scott, W. (2007). Learning for a Change: Exploring the relationship between education and sustainable development. *Journal of Education for Sustainable Development*, 1(2), pp.191-198.

Heart-led reflections

BY MELISSA GLACKIN, SHIRIN HINE, SOPHIE PERRY

Our hearts are full of joy.

At the start of this essay collection, Melissa spoke about the need to sit still, to listen in, to uncover a little of the heartwood tucked away in the depths of environmental education academic scholarship. In a busy world, sitting still is not easy. And so, we are grateful to our authors and reviewers for stepping up, being brave and taking time to distil and convey their learnings through both essays and illustrations. During the process, which engaged hearts, heads and hands in order to share the knowledge gained from our contributors' research and experience, we as editors sensed common ideas that underpinned the essays, like interconnected roots running beneath a forest of trees. In this final chapter, we share these ideas, which we have simplified into three themes: *despair meets hope*, *reflexivity in practice* and *system change*. Collectively the themes speak to the question many of our essayists have touched on: 'what should we do next?' We now explore each theme in turn, consider their meanings from different perspectives and suggest the implications they might have for our future decisions.

Despair meets hope

We can't sugar-coat it: despair and fear for the future of our Earth reach across the essays. The sense of anxiety and helplessness felt by the young people featured in several of the essays is particularly apparent. Their concerns do not relate to a single issue; rather, they are aware of the polycrisis they face and the compounding effects of multiple, interconnected emergencies. Alongside, for example, climate change, biodiversity loss and water/air pollution, many young people recognise that these issues can't be uncoupled from social unrest, food insecurity, financial instability and crises of migration. Rasha and Aylin's essays brought home the magnitude of young people's fears, not only highlighting their concerns about understanding the personal action they can take, but also the underlying unease that there is no easy solution or one 'right' way forward. Arguably, life is about living with uncertainties and holding a level of angst around an unknown future; however, what we found troubling within several essays were the high levels of distrust felt by young people towards their political leaders and the wider structural systems they have created. This distrust is resulting in young people railing against the political system they've inherited, yoyoing between anger and despair, and/or becoming entrenched in apathy and disengaging with the system entirely.

But all is not lost, dear reader! Alongside the agitation, hopefulness is evident across all the essays. First, hope is expressed in the pockets of education already underway, as illustrated by Shirin in her reflections on the opportunities afforded by the Forest School movement. The popularity of this 'alternative' approach in mainstream schools offers many children access to a potentially radical form of environmental education, in which they can experience the world around them with greater freedom. Second, as underscored in Matthew's surprise on reading Heather's research findings, hope is located in the changing tide of teachers' views concerning the purpose of education. Here, we read that alongside teachers of science and geography – subjects traditionally aligned with environmental education – teachers of RE, mathematics, history and English also desire, and are calling for, a holistic approach to environmental education, one which transcends subject disciplines. Achieving this transformation relies on a

“In the space between despair and hope, the essays illustrate the inevitable complexity inherent in the task of transforming our education systems.”

change in individuals' teaching approaches in parallel with whole-scale system change, a theme we turn to below. But what might this golden future look like? Sophie's second vignette goes some way towards answering this and, in doing so, offers us our third encounter with hopefulness. Here we experience a programme which is built on a transformative model of pedagogy, one which goes beyond narrowly defined subject boundaries or reductive learning objectives to offer other ways of being and knowing. As Steven Sterling¹ highlights, "whether the future holds breakdown or breakthrough scenarios we will all require flexibility, resilience, creativity, participative skills, competence, material restraint and a sense of responsibility and transpersonal ethics to handle transition and provide mutual support?" A pedagogy oriented towards cultivating these qualities, we argue, provides a positive and hopeful future.

In the space between despair and hope, the essays illustrate the inevitable complexity inherent in the task of transforming our education systems. This is starkly apparent in Angelina's essay, which explores environmental and sustainability policy in Higher Education. Here, we see hope in how, increasingly, institutions are incorporating environmental issues into policy development across their campuses. However, we felt some despair (although not complete surprise) that education is frequently overlooked, rather than being a central tenet and defining aspect of institutions' green agendas. A further example of the lived difficulties of shifting to transformative education is brought to the fore in Shirin's exploration of gender, and the intersectionality highlighted by an ecofeminist approach. Via her three stories we come to recognise that simply 'doing' environmental education, without consideration of the multiple social influences at play, may result in such education merely entrenching existing inequalities. Whilst Shirin's essay considers the impact of gendered approaches to teaching, other issues – such as race and class – cannot be overlooked in our pursuit for a truly inclusive and authentic environmental education: the theme we turn to now.

Reflexivity in practice

The hopeful nature of these essays doesn't just live on the pages but has affected us as writers and, we hope, may also affect you as readers. Perhaps together, we can look to this essay collection as a source of hope for our own change. But, in doing so we must remember that hope alone is not enough. Embodying and enacting hope, in what Joanna Macy and Chris Johnstone² term 'active hope', is essential.

“Even with the truest of intentions, practice can become at best compromised, or at worst problematic.”

Similarly, Paul's response to Sophie and Angelina's essays instils the importance of pushing just hard enough at the boundaries to make the most of the cracks of possibility that exist within our institutions.

It is with this need to act in mind that we turn to the second identifiable theme within the essays: reflexivity in practice. Initially we considered naming this theme 'authenticity in practice'; however, we found it difficult to articulate what we meant by authenticity, what it looked like, and who got to decide. Instead, we agreed that 'reflexivity in practice' better encompassed what many of our essayists were expressing; the need to examine (and re-examine) our feelings, reactions and motives – and therefore our reasons for acting. In doing this, authentic practice might (or might not) follow. While we recognise the need to act on our hope to transform it into practice, doing so is far from a simple job. Our intentions (unfortunately) do not neatly translate into meaningful practice. Some of the essays shared in this collection show how, even with the truest of intentions, practice can become at best compromised, or at worst problematic, and may even compound the problems it initially sought to address. For example, Sophie and Angelina's essays warn us of what can happen when there is not enough time or space to carry out this all-important reflexive consideration as we act. In Sophie's first vignette we can see that, despite the ambitious intentions for the programme, a context of rushing to deliver results in the actions of educators shapeshifting into something that they neither intended nor recognised. Similarly, Angelina's examination of how Education for Sustainable Development is assimilated into university systems gives us an insight into how a theoretical or academic approach can become hollow when it is applied without checks, balances, or a habit of reflexive consideration (and reconsideration) of its meaning. These two chapters show that action without reflexivity can lead us to drift further from our initial intentions and reinforce the problems we had hoped to solve.

Meanwhile, other essays in the collection demonstrate how a reflexive approach to practice can help us become aware of difficulties and better navigate them to address the issues at hand. Rasha's research foregrounds the importance of reflexivity around her role as researcher-teacher in her study. She questions how authentic the young people in her study can be as they navigate her dual role as teacher-researcher alongside their own complex identities, and the power dynamics associated with their respective positions. Such a study raises as many questions as it answers, while offering a valuable demonstration of

what reflexive practice might look like in research and teaching. Aylin, another teacher-researcher, used her research as an opportunity to explore why her imagined understanding – that young people would be knocking down her classroom door to be involved in a sustainability project – did not come to life. Through interviews with Year 12 students, she describes how popular media narratives around activist youth groups do not map onto *all* young people. Teenagers and young people are a diverse group, and one simple and unscrutinised idea about their interests and actions in relation to climate change does not suffice. Instead, Aylin encourages us to reflect on the need to listen genuinely – and respond meaningfully – to young people, a task which will require ongoing reflexivity.

In the section that explores educators' perspectives, Heather and Shirin offer insights into the value of educators' reflexivity in practice and the extent to which it is possible in current educational and social contexts. Heather points out that environmental education is currently integrated into schools primarily thanks to the goodwill of individual teachers who go above and beyond the requirements of the curriculum. This leaves little space for time to reflect and scrutinise practice, since those teachers are likely to be using what little spare time they have to plan and teach something they personally consider important, but which might not be valued by their school at large. Heather calls for a change whereby environmental education is 'properly' integrated into school life. We suggest that as part of this, an emphasis on time to consider one's own practice is vital. Shirin's three stories illustrate how educators' approaches can result in a variety of outcomes and can mean the difference between an environmental education which reinforces or challenges existing power structures. Such research offers a valuable insight into how becoming more aware of the side effects of educational practice through reflexivity could make significant differences to students' experiences. Finally, in Matthew's commentary, it is heartening to see that his contribution to this book has afforded him some time to reflect on the role that his own practice plays. He makes important points about the potential power that educators hold, but the necessity of support so that they feel confident and able to deliver transformative education. Perhaps addressing reflexivity in such training or support for environmental educators could offer a valuable contribution to practice and enable considerable shifts in learner and educator experiences.

All of the essays touch to some degree on the value of reflexive action (or the perils of acting unreflexively!). To us, reflexivity in practice is a continual process which entails

“the ‘system’ is often hidden in plain sight and is therefore almost impossible to isolate, single out and cut away.”

giving ourselves the time to scrutinise our work. We can then consider whether our actions are aligning with their intentions and – importantly – ensure we have the freedom to adapt when necessary.

System change

The pockets of transformative practice we see shared within the essays are akin to water droplets with the potential to form a sea of change. A life more in harmony with Earth's systems would require significant shifts in the currents of our social, political and economic systems. But as so many of the essays underscore, the urgency is such that we cannot wait for the individual droplets to create the momentous tidal wave we require. Rather than look to individual change to affect systems, systemic change needs to happen *in tandem with* individual action.

If you were in any doubt about the necessity for change, Sophie's essay shows how the current consumerist system's tentacles run through our institutions and influence our professional (and often personal) practices. Due to its ubiquitous nature, 'the system' is often hidden in plain sight and is therefore almost impossible to isolate, single out and cut away. Sophie's first vignette offers us a powerful insight into the insidious hold that 'the system' has, even on contemporary youth programmes. Here we look under the bonnet and see the taken-for-granted mechanisms in a new light. Pre-emptive, specific and externally created programme objectives with anticipated outputs and reporting timetables unexpectedly reveal themselves to be restrictive and in opposition to the work that is required and desired. But returning to the idea of hope, Sophie's second vignette allows us to feel what a programme might be like within a transformed system, one in which care for nature is valued above the creation of wealth.

Whilst heartening, the essays calling for system change remain pragmatic in looking for tools to realise that change. Education (expectedly, given the focus of this book) is an important instrument in the process of our societal and environmental transformation. In her review, Samrena shares her lack of experience of environmental education while at school, and in doing so echoes the responses of the young people in Aylin and Rasha's research. In order to better use the tool of education at our disposal, Heather's teachers want to rework the education system, and recognise education policy as a useful key for change. Here we see teachers from across subject disciplines call for radical changes in education policy to enable them to create the holistic, joined-up schooling that they believe young people require. Sophie too shows how systems

and processes can realise (or prevent) change, noting the important role funding bodies play in what they choose to prioritise to be funded and how 'success' is assessed. Finally, Angelina highlights how international policies are tools at our disposal, but only represent a step in the process of change. Her research clearly identified that environmental policy, and indeed environmental education policy, must be systematically implemented across all levels if change on the ground is to be realised.

Can you hear the heartwood?

Collectively the essays offer opportunities to consider different views and perspectives and invite us to consider where we are now. *How do you feel at the end of this journey?* By tapping into the heartwood of academic writing and translating some of these ideas through their own lived experiences as educators and researchers, the authors have gifted us with unique understanding and glimpses of inspiration. In turn, and once we have reflected on where we are, this might help us begin to think reflexively about what we, in our own roles, could do next. In taking this space to explore different aspects of environmental education together, we are being active in the process of (hopeful) environmental action.

As Steven Sterling³ reminds us, “environmental and sustainability education have never been, and cannot be, ends in themselves contained and complete”, but embracing the process and all of its intricacies can help us realise a deeper shift in educational culture that is more appropriate to the world we inhabit. 



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¹ Sterling, S. (1996). Education in change. In: J. Huckle & S. Sterling (Eds.) *Education for sustainability* (pp. 18-39). Earthscan. (p.26).

² Macy, J. & Johnstone, C. (2022). *Active Hope. How to Face the Mess We're in with Unexpected Resilience and Creative Power.* (Revised Edition) New World Library, California.

³ Sterling, S. & Jickling, B. (2017). An afterword. In: B. Jickling & S. Sterling (Eds.) *Post-sustainability and environmental education: Remaking education for the future* (pp. 139-145). Palgrave Macmillan. (p.141).



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