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# What do educators think about the provision of environmental education in secondary schools?

Heather King, Melissa Glackin, Rachel Cook and Kate Greer

**Abstract** This article presents a summary of a review conducted in 2018 in which the authors examined the state of environmental education in secondary schools in England as viewed by experienced teachers, subject association and learned society staff, and those involved more widely in the environmental education sector. A key aim was to document the ways in which schools support the practice of environmental education following its removal (in 2014) as an explicit value underpinning the National Curriculum for England.

## Review summary

In 2018 we conducted a review in which we examined the state of environmental education in secondary schools in England as viewed by experienced teachers, subject association and learned society staff, and those involved more widely in the environmental education sector (Glackin *et al.*, 2018). Our review found that the provision of environmental education in England is complex, contested and circular. Viewed as a broad church, and a discipline that students find ‘interesting’, respondents noted that environmental education encompasses multiple topics and skills. Currently, however, environmental education has no defined home, resulting in the subject ‘falling through the gaps’. Coverage is patchy, and the quantity and quality of environmental education is dependent on the teachers’ own beliefs and whether the students study geography at key stage 4 (14–16 years). Furthermore, environmental education content straddles geography and science departments with no single subject area having a clear overview of, or responsibility for, students’ exposure to a coherent education *about, in* and *for* the environment.

We also found that there is a mismatch between what teachers see as the potential for environmental education – a hook for students, an opportunity to teach interdisciplinarily and focus on life skills/21st century skills, and a vehicle for enabling community and environmental activism – and the current curriculum focus perceived as subject acquisition. The acute focus on subject content, when coupled with written exams for assessment, has a negative impact on students’ attitudes towards environmental education because it sits outside of these priorities. Negative attitudes may be further heightened by environmental education content

being frequently pitched at a global/systemic level and removed from the local and personal level. While global understanding is important, learning about local environments and issues, and developing local responses, can support student ownership of ideas, and potentially empowerment – key aspects of 21st century skills and environmental activism.

Given the gaps and mismatches in provision and responsibility, we concluded that there is a need for schools to be supported in developing citizens who have the knowledge, skills and conviction to positively respond to future global and local environmental issues impacting communities and our ecosystems. Although contentious and not without issue, we proposed that the first step towards this aim would be to apportion environmental education a mandatory remit in the same way that numeracy and literacy are incorporated across the curriculum. To this end, future reforms of Ofsted’s school inspection framework and the Teachers’ Standards must recognise environmental education. Examination boards also must shoulder some of the responsibility to ensure students are fully educated in environmental issues, including the importance of taking action to mitigate anthropogenic problems.

## Research methods

### Interviews with educators

We interviewed 18 educators: 8 science secondary school teachers, 6 geography secondary school teachers and 4 staff from learned societies/subject associations. Interviews were carried out between November 2017 and February 2018 either in interviewee workplaces or by telephone.

Interviews were semi-structured and lasted between 20 and 30 minutes. They covered topics such as perceived quantity, curriculum fit and location of environmental education, the value of environmental education, and the requirements for future subject reforms.

Interviews were audio-recorded and transcribed. The data were analysed in an iterative fashion. Initially, data were grouped into categories corresponding to the main interview questions. The data were then considered together in order to identify specific patterns and themes within the broader categories. The patterns and themes were supported with illustrative excerpts from the interview transcripts. Alongside the thematic findings, we identified proto-principles for the future of environmental education. These principles were key inputs into our stakeholder discussion groups

### Stakeholder discussion groups

A one-day stakeholder conference was held at the Greater London Authority, City Hall, London, on 30 April 2018, to share the emerging findings and to discuss whether they resonated with attending stakeholders' experiences. Thirty-two educators participated. To ensure a diversity of views, participants included staff from a range of organisations involved in environmental education, including secondary schools, charities, NGOs, government departments, private companies and research institutions.

The discussion groups, each with a maximum of nine participants, examined the findings from the educator interviews, reflected on the proto-principles, and considered practical ways in which the principles might be built into future environmental education planning and practice. Key ideas arising from the four discussion groups were documented by a facilitator, captured on stakeholders' notes and in contributions to group posters. The data analysis process involved comparing the roundtable data with interview findings and identifying agreements and contradictions. Further responses from the participants (allied to practical concerns) were also grouped, and key issues identified.

### Key findings

- **Environmental education was perceived as a broad church** encompassing a wide range of topics/issues, including opportunities for skills development. Students were perceived as interested and inquisitive about environment-related issues. However, environmental education suffered from a poor or negative stereotype and was described as '*a soft science*', a subject concerning '*littering*', or a subject about '*mad people who hug trees*'. These stereotypes influenced how the subject was positioned in school and potentially framed the way it was taught.
- **The amount of environmental education that should be in secondary schools in England was contested.** Most science teachers agreed that since the 2014 curriculum and examination reforms, topics associated with environmental education had declined, receive less of an emphasis, and '*are falling through the gaps*'. The decline of environmental education in the science curriculum was thought to be an outcome of the strong emphasis on subject acquisition (for example, physics content, rather than environmental education content) and the reduction of context and application in the curriculum. The reduction of context was significant because effective (and engaging) environmental education is contingent on being situated in context. The decline of environmentally related content in science was also considered to be a result of the recent emphasis on mathematical skills and the removal of assessed coursework. Significantly, geography teachers, by contrast, were more likely to consider environmental education to be sufficiently addressed in the curriculum.
- **Environmental education was 'transient'**, that is, the subject's location shifts between geography, science and beyond, with the perception of its locus being dependent on the interviewee's subject alignment. However, geography teachers were more likely to state that their subject has overall responsibility. If the locus of environmental education is indeed geography, such a positioning has implications for students' learning. As geography is only mandatory until the end of key stage 3 (age 14), around 50% of young people in England who choose not to take GCSE geography will experience limited environmental education provision.
- **Environmental education is not supported at a whole-school level.** Schools' foci and priorities are highly influenced by Ofsted's agenda; thus, the absence of an environmental-related Ofsted standard is arguably limiting whole-school, long-term commitment to environmental issues. It was widely agreed by all respondents that environmental education cannot be sustained through an individual teacher's passion and commitment alone.
- **The green economy and 21st century skills offer vehicles for environmental education.** While subject acquisition was regarded as important in order to understand environmental issues, respondents commented that social responsibility and activism needed to be promoted. Since

### 21st century skills

21st century skills comprise skills, abilities and learning dispositions identified as being required for success in 21st century society and workplaces (e.g. critical thinking, communication, creativity). See [www.battelleforkids.org/networks/p21](http://www.battelleforkids.org/networks/p21).

these data were collected, global movements such as school climate strikes and Fridays for Future have grown. As a result, we anticipate that more educators would be supportive and open to exploring how ideas related to the green economy (an economy that aims at reducing ecological scarcities and environmental risk) and the development of 21st century skills might be better included in school curricula as a way to empower students with respect to the environment. Thus, both initiatives need to be prioritised when designing future environmental education curricula.

## Recommendations and messages for policy

- Environmental education should be recognised in future reforms of Ofsted's school inspection framework. More specifically, we recommend that schools be given freedom to choose the way in which environmental education is addressed across the whole school. To support schools in making choices that work for them, we recommend national discussions around the benefits of creating a separate environmental education discipline, or ensuring coverage through existing disciplines, or organising whole-school curriculum days.
- Effective environmental education needs to encompass equal opportunities for environmental activism, subject acquisition and skill development. In other words, students need to engage in learning *in, about* and *for* the environment. To achieve

this, learning opportunities need to occur both in and outside the classroom. Furthermore, learning opportunities need to be framed at both the global/systemic level and the local level. By emphasising local considerations, students are able to develop ownership and agency for solutions while also understanding the interconnected nature of local environmental issues in the global context.

- Environmental education should be recognised in the Teachers' Standards. Teachers need to be supported in their initial and continued education to cultivate dispositions and skills so that they feel confident to seek out and develop opportunities for environmental education in their teaching.
- Examination boards need to be encouraged to develop and promote assessment procedures that capture equally environmental education's three underpinning values: social responsibility/activism in the environment, knowledge about the environment and skills for the environment.

## Looking to the future

Significantly, we note that the above recommendations shaped by stakeholders and educators in 2018 remain an aspiration rather than a reality in 2021.

We understand the pressures faced by the education sector, but highlight the central importance of equipping young people with the skills, attitudes and knowledge to respond positively to future environmental issues impacting communities and ecosystems.

By incorporating principles of environmental responsibility into their school operations and teaching practices, we suggest that schools and teachers can lead the way for policy makers and wider society to follow.

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## Reference

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**Heather King** is Reader in Science Education at King's College London. Email: [heather.1.king@kcl.ac.uk](mailto:heather.1.king@kcl.ac.uk)

**Melissa Glackin** is Senior Lecturer in Science Education at King's College London.

**Rachel Cook** is a PhD candidate at King's College London.

**Kate Greer** is Postdoctoral Research Fellow at the the University of Melbourne.