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To cite this article: Kathryn Wheeler (2023): Educating children as sustainable citizen-consumers: A qualitative content analysis of sustainability education resources, Journal of Moral Education, DOI: [10.1080/03057240.2022.2159344](https://doi.org/10.1080/03057240.2022.2159344)

To link to this article: <https://doi.org/10.1080/03057240.2022.2159344>



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Published online: 26 Jan 2023.



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Educating children as sustainable citizen-consumers: A qualitative content analysis of sustainability education resources

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ABSTRACT

This paper explores how children (aged 7–11) in the UK are educated about sustainability and climate change, through exploring a sample of 155 learning resources from public, private and third sector organisations. Using qualitative content analysis, key codes captured a) how sustainability was represented; b) how responsibilities for sustainability are imagined and allocated within society; and c) how children are encouraged to act for sustainability. The paper shows how sustainability resources represent children as powerful agents of social change charged with the responsibility and means to change their (and their close relatives') behaviour within the household and school. Drawing on critical debates about sustainability education, I argue these representations are problematic because they do not equip children with an understanding of the political and moral economies that shape their actions (or inactions) as citizens, nor provide them with opportunities to develop collaborative competencies.

KEYWORDS

Education for Sustainable Development (ESD); consumer-citizenship; climate change; qualitative content analysis; social connection model of responsibility

Young climate strikers have called on governments to act on the climate crisis, arguing their education is not preparing them for their uncertain future. Developing children's awareness and knowledge of environment and sustainability has been a key strategy for environmental campaigners and policymakers alike. Yet in England,¹ Education for Sustainable Development (ESD) has not been prioritised, with no references to sustainability within the National Curriculum. In this policy context, teaching about sustainability relies on efforts of committed teachers to introduce this topic beyond formal learning structures. There are many sustainability educational resources available to help them in this aim produced by a wide range of organisations (including public, private and third sector). This paper takes a sample of 155 such learning resources targeted at children (aged 7–11) to discover what messages about sustainability and climate change are communicated. Specifically, I focus on how responsibility for the sustainability crisis and transitions towards sustainable futures are allocated and modelled. Many of these resources assign responsibility to individual consumers, promoting actions like recycling and turning off lights rather than educating children

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about broader political and moral economies through which collective responsibilities can be discharged.

Placing responsibility onto consumers has been a common policy response within neo-liberal economies and scholars of sustainable consumption have drawn attention to the practical challenges of targeting consumers for achieving sustainability transitions, not least because our everyday consumption is driven by social norms and collective customs and is rarely a coherent space for intervention (Middlemiss, 2018). Yet mobilising consumer identities has been successful for engaging communities of interest, who can then place pressure on different sections of society to change systems and policies (Evans et al., 2017; Wheeler, 2012). There is a balance to be struck between placing all responsibility onto consumers and acknowledging other actors within this process. It is for this reason this paper will focus on how responsibility is distributed within learning resources and will ask how, and with what ends, children are mobilised to act on sustainability issues. I draw on Young's (2006) social connection model of responsibility to show why more attention needs to be given to 'background conditions' if we are to equip children with the tools to act on structural injustices as citizen-consumers.

Learning resources are powerful socialisation tools that educate children around key environmental and development issues, constructing the normative parameters surrounding appropriate actions and responses. Other researchers have looked at environmental and development learning resources (Bourn, 2020; Eaton & Day, 2020; Huckle, 2013; Pykett et al., 2010; Tallon & Milligan, 2018), but this is the first systematic overview of a wide range of ESD resources, focusing on both environmental and development agendas produced by diverse organisations (including Non-governmental organisation [NGO], private and public sectors). Sustainability education is a 'broad church' which encompasses fields of environmental education, development education, education for sustainability and the UN-sponsored Education for Sustainable Development (ESD)—though there are differences between these, I will use the term ESD from this point.² This study contributes to broader debates surrounding the challenges of ESD within neo-liberal economic systems, which promote economic growth and development, suggesting small-scale reforms to lifestyles and technological innovation are sufficient to achieve sustainability goals. Children are not being offered a transformative approach to ESD, with corporate power unquestioned and critical thinking skills discouraged (see Eaton & Day, 2020; Hayward, 2012; Huckle & Wals, 2015; Kahn, 2008; Sterling, 2001).

The central aim of this paper is to uncover how moral and political responsibility for sustainability transitions are represented and distributed in ESD resources. This paper begins by exploring the dominant policy approach to ESD and alternatives that develop children's awareness of political systems or critical thinking skills, facilitating collaborative competencies for citizenship. After outlining how the study was designed, my presentation of results focuses on three key codes: a) how sustainability is represented within these resources; b) how collective responsibilities for sustainability are imagined and allocated within society; and c) how children are encouraged to act for sustainability and become sustainable citizen-consumers. My discussion concludes by reflecting on the limitations and possibilities of these resources to inspire a critical and hopeful pedagogy for change.

Educating citizens to take responsibility for sustainability

Governments across the world have been asked to embed ESD within their local and national educational programs following UNESCO's Decade of ESD (2005–2014). ESD should

empower(s) learners with knowledge, skills, values and attitudes to take informed decisions and make responsible actions for environmental integrity, economic viability and a just society empowering people of all genders, for present and future generations, while respecting cultural diversity (UNESCO, 2020, p. 8)

In 2015, the Sustainable Development Goals (SDG) and, in particular SDG target 4.7, called for all learners to have access to ESD by 2030. But there are concerns about how ESD has been implemented to-date and its inability to 'challenge neoliberalism as a hegemonic force blocking transitions towards genuine sustainability' (Huckle & Wals, 2015, p. 491). Questions of power, political economy and global citizenship have not been at the fore of this reformist agenda, with 'shifts in values, lifestyles and policy' deemed sufficient to 'put global society on a sustainable path' (Huckle & Wals, 2015). Yet hope remains for a more transformative educational approach, often grounded in critical pedagogy inspired by Paulo Freire (Gadotti, 2008; Huckle, 2013; Kahn, 2008). We can identify two broad approaches to ESD: 1) instrumental promotion of informed behaviours and values which have dominated the policy landscape; 2) a transformative or intrinsic process of learning that builds capacity to think critically about sustainable living (Jordan, 2022; Sterling, 2010; Vare & Scott, 2007). These approaches should be seen as complementary as too much of the first 'reduces learners capacity to think and act for themselves' to become responsible citizens, and too much of the second may be 'ethically bereft' and 'prone to relativism' (Jordan, 2022, p. 40).

The moral roots of ESD have been noted elsewhere in this journal, raising questions about whether values of individualism and anthropocentrism should prevail or whether a fundamental re-evaluation of our place in nature and how we live our lives is needed (Bonnett, 2012). An effective ESD should provoke normative questions about how humans should value and act upon the natural world. But too often children are presented with 'limited freedom' to explore solutions beyond neo-liberal models of behaviour change which do little to challenge the status quo (Jickling & Wals, 2013).

Various frameworks pull together different elements of what effective ESD should comprise to support children to become sustainable, virtuous citizens (Hayward, 2012; Huckle & Wals, 2015; Jordan & Kristjánsson, 2017; Kahn, 2008; Sterling, 2010). In their discussion of Global Education for Sustainability Citizenship (GESC), Huckle and Wals (2015) suggest a truly transformative education should: 1) highlight how individual acts are embedded in broader socio-political systems, addressing questions of power and political economy; 2) raise normative questions about children's role in ensuring common resources (and humans and non-humans that rely upon them) are protected; 3) alert students to the social construction of sustainability and how different actors, including the media, appropriate discourse for different ends; 4) focus on social and environmental justice and expose students to reformist and radical solutions. These authors call for children to be educated about the 'background conditions' their everyday actions are embedded within (Young, 2006).

Iris Young (2006) developed the social connection model of responsibility (SCMR) to show how citizens can be mobilised to realise and act upon their responsibility for global justice. Offering an alternative to the liability model which isolates blame for past events, a SCMR is more forward-looking and distributed. Many of us contribute (albeit unintentionally) to conditions of structural injustice by acting according to ‘accepted norms and rules’ within our everyday contexts. Recognising our shared responsibilities for such injustice requires citizens to become aware of the ‘background conditions’ their actions are embedded within. ‘Background conditions’ comprise globally interdependent webs of institutions, political economies, cultural practices and moral norms which shape and constrain action. Young discusses sweatshop labour, revealing complex ‘background conditions’ and therefore an uncertain/limited impact of individual consumer choices. To effect change, citizens must act collectively to discharge their political responsibility for structural injustices. This is less about defining what actions are or aren’t appropriate (because context matters) and more about acting in a ‘politically savvy way’ to gather knowledge and encourage others to act on it to transform institutional rules and social practices (McKeown, 2018, p. 499). Though everyone has responsibility, those with ‘power to influence the processes that produce unjust outcomes’ bear more responsibility than others (Young, 2006, p. 125). Young’s influential ideas have been widely applied to other cases where isolating responsibility is challenging because of complex global systems—such as climate change (Larrère, 2018). Her ideas provide a useful frame for evaluating how children are taught about sustainability. We can ask whether ‘background conditions’ of sustainable development are sufficiently articulated through ESD resources to develop ‘politically savvy’ citizens and whether responsibility for transforming systems is represented as a collective endeavour.

Such goals may seem too complex for children to grasp but Hayward (2012) suggests those as young as 8–12 have the desire and capacity to act as sustainable citizens. What is required is a broadening out of what we understand by citizenship, away from liberal understandings that stress legal entitlements conferred by membership within political communities and towards more active models of children participating in local community projects to develop collective agency within their everyday lives. Hayward stresses the importance of children ‘collaborating and reasoning together to create alternative pathways and forms of public life’ against the personal responsibility rhetoric that dominates public life (Hayward, 2012, p. 8). Children must ‘learn by doing’ to develop ‘action competencies’—though there are limits to agency according to socio-demographic characteristics and cultural constraints (Uzzell, 1999; Walker, 2017). Scholars of character education warn against assuming children will automatically act in favour of democracy once in possession of the facts (Jordan, 2022; Jordan & Kristjánsson, 2017). Instead, to nurture moral virtues that favour ‘harmony with nature’ and deal with the complexity of sustainability, we must provide opportunities for children to put these virtues into practice—‘they must be cultivated and habituated experientially and affectively over time’ (Jordan & Kristjánsson, 2017, p. 1223).

What this suggests for this research (based on learning resources for those aged 7–11) is complex ideas about political economy, environmental justice and the development of moral character must be integrated into opportunities for collective forms of engagement at the local level. This research will explore how well learning resources represent the

'background conditions' for sustainability, whether responsibility is distributed between a range of actors, and the opportunities to act collectively on this issue.

Existing research on ESD resources

Learning resources are powerful tools of socialisation and as such have been explored by other scholars, particularly in development studies (Bourn, 2020; Eaton & Day, 2020; Huckle, 2013; Pykett et al., 2010; Tallon, 2012; Tallon & Milligan, 2018). These authors share concerns about how children are mobilised to act and care about sustainability and development; and how organisational priorities influence the presentation of issues. On the first point, Tallon (2012) suggests that student readers are often positioned as 'saviour' to neo-colonial representations of the distant and deserving 'Other'. Tallon identified an 'ethical hegemony' that perpetuates these resources, arousing emotions like guilt, pity and compassion to mobilise students to undertake quick and easy consumer actions to salve their consciences. Emotions like apathy, boredom and cynicism are not given space, with students compelled to respond uniformly towards charitable or consumer-focused resolutions rather than critically reflect upon the appropriateness of these actions. Huckle's (2013) analysis of Eco-School resources reveals a similar story with behaviour change initiatives and technological innovations foregrounded, and 'background conditions' (or the 'political economy and ongoing production and reproduction of society' (Huckle, 2013, p. 411)) insufficiently explored. There is an 'assumed homogeneity' amongst imagined student readers, with socio-cultural differences (like class, gender and ethnicity) not factored into how 'they' and 'us' were represented, nor recognised as potential barriers to acting (Pykett et al., 2010).

The authorship of resources by NGOs and corporations is claimed to shape how issues were represented, stifling possibilities for critical reflection. In their review of energy resources, Eaton and Day (2020) argue that questions of corporate power are closed off as resources promote 'petro-pedagogy', and it is a 'brave NGO' who is 'willing to encourage critical thinking about itself and its operations as part of their education materials' (Tallon & Milligan, 2018, p. 68). The English policy context is important here (or in Tallon's case, New Zealand) because there is no central oversight of sustainability education by government and so organisations dominate the landscape of sustainability education. Resource production is inevitably influenced by those who fund its authorship and is constrained to maintain the status quo.

Building on these insights, this research undertakes a wide-reaching qualitative content analysis of educational resources produced by diverse organisations (including NGO, private and public sectors). This is the first systematic overview of a range of ESD resources, focusing on both environmental and development agendas, which asks how responsibility for sustainability issues is represented and how children are being mobilised to act on sustainability. The research is based in England, where central government has shown only limited support for inclusion of climate change and sustainability within national learning frameworks.³ Though the National Curriculum in 2000 stated pupils should develop awareness and respect for the environment and commitment to sustainable development, when the National Curriculum was re-launched in 2013, references to sustainability were removed (SE-ED, 2013). The Department for Education supports principles of ESD but argues it is better to leave schools to take

responsibility for this agenda based on their local needs. The government position on 'greater school freedom means local and civil society organisations must act to help schools to pursue sustainability' (SSA, 2014). Therefore, this research was conducted when a range of civil society and private sector organisations were providing resources and educational initiatives to embed ESD within the classroom, in the vacuum generated by limited centralised state support for this agenda.

Methods

Research design

The data reported in this paper were gathered using qualitative content analysis (QCA; Schreier, 2012). QCA involves systematic reading of a body of texts and application of a consistent coding framework to capture and categorize manifest and latent content. QCA was the first stage of a sequential mixed-method design (Creswell, 2013), followed by qualitative interviews with key stakeholders who develop/use ESD resources. It is beyond the scope of this paper to comment on the second stage of research. A qualitative approach allows for interpretation of the context of content analysed, as well as underlying meanings implied through the presence and absence of codes. I was not only interested in what students were taught and what activities they were asked to undertake (manifest content) but also to interpret what these messages might mean in the context of broader debates about sustainability education (latent content). However, quantification of data is appropriate when utilising QCA. Unlike other qualitative approaches to text analysis, QCA adopts a realist epistemology by treating data as 'content' to be classified and reduced rather than a constructivist position which acknowledges how meanings are co-produced between researcher and data interpretation processes (Braun & Clarke, 2021; Wheeler, 2022). Educational resources are standardised in form (e.g., lesson plans or short educational videos/games with clear learning objectives) and so this data was appropriate for QCA.

Sample

The landscape of ESD resources is huge and my sampling strategy aimed to capture diversity of organisational provision. I selected nine organisations from NGO, private and public sectors—these were World Wildlife Fund (WWF), Eco-Schools, Oxfam, Marine Stewardship Council (MSC), Fairtrade Foundation (FTF), EDF Energy, Tesco, Scottish and Welsh government and UN World's Largest Lesson (WLL). Given the abundance of NGO-led provision, I distinguished between organisations that place different emphasis on consumer-led (MSC and FTF) versus citizen-led actions (WWF and Eco-Schools). I found no resources provided by Central UK government (in keeping with their hands off approach) so some limited resources on Scottish and Welsh government's websites, along with UN resources, provided the public sector perspective. Although devolved UK nations have different (and more developed) ESD policies, many of the private and not-for-profit resources explored in this study are recommended through their government portals.⁴ [Table 1](#) shows the breakdown of resources by organisational type.

Table 1. Number of resources explored by organisational type.

<i>Organisational type</i>	Private sector	Labelling organisation	Third sector	Government	Total
<i>Name of organisation</i>					
Tesco (a supermarket)	7				7
EDF Energy: The Pod	25				25
Fairtrade Foundation (FTF)		18			18
Marine Stewardship Council (MSC)		21			21
Eco Schools (England and Scotland)			16		16
Oxfam			17		17
World Wildlife Fund			19		19
World's Largest Lesson (UN)				22	22
Scottish and Welsh Government				10	10
Total	32	39	52	32	155

To ensure comparability between resources, I restricted the sample to those aimed at Key Stage 2 (or ages 7–11). Hayward (2012) maintains that children aged 8–12 are beginning to engage in climate action and developmental accounts of childhood suggest this is when children are learning to reason about moral issues, becoming less egocentric, and use inductive reasoning (Wals & Dillon, 2013). I initially visited organisation websites between Dec 2017 and Feb 2018 and downloaded most of the freely available resources then. The challenge was to select sufficient examples from each type of organisation across a diverse range of topics and activity formats. Resources available from Tesco, Eco-Schools, Scottish/Welsh government and MSC were limited to 1–3 key resource collections, whereas other organisations (FTF, EDF Energy, WWF, Oxfam and WLL) had too many resources to include them all. A maximum of three resource collections were selected for each organisation. Over 200 resources were downloaded but these needed to be further sorted into units comparable for content analysis (Schreier, 2012)—which involved merging and splitting files to generate 155 resources.⁵ Table A1 provides a full list of resources analysed (see Appendix A).

Procedures for analysis

After sorting all documents into either lesson plans, videos, games or standalone resources, I developed key coding categories from an inductive reading of a sample of texts. A student researcher checked and piloted these codes to ensure inter-coder reliability. For this paper, I concentrate on codes which captured how sustainability was represented; how responsibility for dealing with sustainability was distributed within society; and what actions children should undertake because of engaging with learning resources. Table 2 provides an overview of these coding categories.

I used the qualitative software package, MAXQDA 2022, to assist the coding process, as well as the quantification QCA allows. Schreier (2012) recommends a strict protocol for QCA, including segmentation (that units of analysis (each document) are separated from units of coding (segments within each document)), and mutual exclusivity within coding categories (that only one sub-category within a coding category can apply to the same segment). Practically, these protocols were challenging because i) the variety of document types analysed did not lend themselves to segmentation in the way interview transcripts or

Table 2. Content analysis coding categories.

A) Coding category	B) Subcategories	Description
Representation of sustainability	<ul style="list-style-type: none"> ● Negative ● Positive ● Neutral 	The images and language used to describe why action is needed, what the current situation is, and examples of sustainability in practice
Responsibility for sustainability problem	<ul style="list-style-type: none"> ● Non-descript ● Governments ● Businesses ● Consumers/households ● Farmers/fishers 	Who is assigned responsibility for current situation
Enacting change in society	<ul style="list-style-type: none"> ● Consumers/households ● Children and Schools ● Governments ● Businesses ● NGOs ● Farmers/fishers ● Non-descript 	The actors given a role in ensuring sustainable futures are realised.
Actions for learners to undertake	<ul style="list-style-type: none"> ● Eco club or campaign ● School changes (provision/grounds changes often via eco-club) ● Household or consumer actions ● Directed at government ● Directed at business ● Support for NGO 	The actions children should undertake because of engaging with resources

newspaper articles might, and ii) sometimes I wanted to capture diversity within a coding category making mutual exclusivity undesirable. Mutual exclusivity is not always upheld in QCA (Graneheim et al., 2017), nor is it common in other forms of qualitative data analysis. I therefore made several adjustments to suit the project; I chose to consider units of analysis and units of coding simultaneously, given my data were in the form of short lesson plans and learning activities; and, I used two features within MAXQDA (*categorical document variables* and *crosstabs*) to ensure principles of mutual exclusivity within coding categories were observed where appropriate and to avoid double-counting codes when diversity of coding categories was important to capture. The MAXQDA *categorical document variable* feature transformed sub-categorical codes into document variables, thus assigning each document a single sub-category within the overarching coding category—this was the category used most frequently within a document, or the dominant code. What this meant practically was I could code multiple instances of each coding category where I saw them and then MAXQDA calculated which code was used most frequently within a document.⁶ Similarly, the *crosstab* feature enabled me to code all instances within a document using all sub-categories (e.g., capturing when more than one sector of society was assigned responsibility for sustainability transitions) but rather than choosing the dominant category, I captured that diversity. I chose not to count categories more than once in the crosstab analysis (using the one ‘hit’ per document feature), though of course there was variation in the number of times different actors were coded. I reasoned that dominant categories were already captured through categorical document variables, and I was uneasy about further quantification of qualitative data. I was interested

in whether different actors were mentioned rather than capturing the frequency with which they appeared within each document.⁷

Limitations

QCA is less reductive than its quantitative counterpart, but this method's key aim is to summarise and reduce data rather than expand upon it (as would be the case with thematic or discourse analysis). I originally approached this dataset using thematic analysis but switched to QCA because of the amount of data that needed to be described in a standardised way (see Wheeler, 2022). I was clear this was still a qualitative analysis that went beyond counting to explore meanings in the material. My approach to segmentation and mutual exclusivity principles (described above) are examples of how I used this method flexibly to best capture nuances within the data. It is not possible with such an analysis to go beyond the representations within the text to say how these resources were used in the classroom or the rationale behind their production.

QCA can be accused of subjectivity because different researchers may see different things within the data. However, accusations of subjectivity can be addressed by working closely with another to develop and pilot coding categories (a student researcher assisted in the early stages of this project), and by providing a clear and transparent account of how the coding frame was developed and applied.

Another limitation was that most resources were downloaded in 2017/8 before the impact of Covid-19 on education. There was some delay between collecting resources and analysing them,⁸ but I ran checks in 2021 to ascertain resource collections were still available for download. Some had been adapted for home learning with discrete activities added as appendices, but most remained unchanged though inevitably school-based eco-clubs were unlikely.

Presentation of results

Overview of analysis

Despite ensuring diverse organisations were represented in this research, there was striking similarity in how they represented sustainability, how the distribution of responsibility for sustainability was allocated and the forms of action they encouraged children

Table 3. Dominant coding categories by organisational type.

Organisational type	Private sector	Labelling organisation	Third sector	Government
<i>Coding categories</i>				
Representation of sustainability	Positive	Negative	Negative	Negative
Responsibility for sustainability problem	Non-descript	Farmers/Fishers	Non-descript	Non-descript
Enacting change in society	Consumers/ Households	Consumers/ Households	Children and Schools	Consumers/ Households
Actions for learners to undertake	Household or consumer actions	Household or consumer actions	Eco Club or Campaign	Household or consumer actions

to undertake. Table 3 provides a snapshot of these areas, using *categorical document variable* based on the highest unit categories within each organisational sample. I discuss each coding category in turn below, but important to draw out is the dominance of consumer responsibility and consumer/household actions, providing a limited repertoire of actions for children to undertake.

Representation of sustainability

This code captured how the current state of the environment and those depending upon it were represented to children. Most resources represented the current situation in negative terms (see Table 4), rehearsing the ‘apocalyptic narrative’ so common within environmental communications (Hannigan, 2014). Iconic images of polar bears on melting ice featured alongside images of playgrounds flooded, sea animals (often turtles) surrounded by plastic or trapped in fishing nets, planes and other vehicles emitting pollution, litter, droughts, animals dying and families being unable to feed themselves. These representations were often juxtaposed with an account of consumers who thoughtlessly (if unintentionally) contributed to the problem through their everyday energy and food practices. This consumer (within the household or school) then becomes the key target for behavioural change. Like Tallon’s (2012) research, negative representations were designed to make student readers feel guilty and empathetic towards animal-human others. The result is a morally charged coercion to act differently as a consumer, pupil and citizen. For instance,

Our seas are under threat. If we carry on as we do now, fish and seafood could be overfished, habitats such as coral reefs will suffer, as will the marine life that depends on them, and there could be more plastic in the ocean than fish by 2050. [...] By looking at the impact of plastics pollution on the oceans, pupils will consider what steps we can all take to safeguard these precious waters for generations to come (WWF Ocean Plastics, 2018, p. 1)

Conversely, most ‘positive’ representations of sustainability were celebrations of technological advances, such as wind power and recycling technologies, and market interventions like Fairtrade and other certification schemes, as well as charitable projects. The form of sustainability transition promoted presented the ‘limited freedom’ model which did little to challenge the status quo, rehearsing reformist agendas resting on technology and informed consumer behaviours to achieve sustainable development (Jickling & Wals, 2013). It is perhaps no surprise that representations of positive market-based reforms were common in private sector resources, where the ‘business as usual’ approach to sustainable development prevails. However, they were not alone in presenting this vision of sustainable living which pictured the good life as one where households and

Table 4. Dominant representation of sustainability by organisational type.

<i>Organisational type</i>	Private sector	Labelling organisation	Third sector	Government	All organisations
<i>Representation of sustainability</i>					
Negative	31%	46%	54%	44%	45%
Positive	44%	41%	27%	41%	37%
Neutral	25%	13%	19%	16%	18%
N =	32	39	52	32	155

consumers polluted, bought and wasted less, and supported those organisations already engaged in climate and social justice actions.

Though less prevalent, there were also positive representations of youth-led clubs showcasing what they had achieved through collective forms of sustainability engagement. Artwork designed by children, school allotments cultivated by classes, or litter picks undertaken by groups offered some evidence of the more experiential and collective action elements of sustainability citizenship (Hayward, 2012). As we will see below, however, the types of action encouraged were limited and placed responsibility for transitions upon children rather than more powerful actors.

Finally, neutral representations portrayed no overt appeal to sustainable forms of living or crises, but instead presented activities (like conducting surveys or running team meetings) without explicit attention to why or how these activities related to sustainability.

Distribution of responsibility

Distribution of responsibility fell into two categories—1) allocation of blame for the current crisis and 2) allocation of responsibility for future sustainability transitions. Overt blaming was not common and instead passive language was employed to deflect blame from any specific section of society. The culprit was ‘humanity’, ‘human activity’, ‘us’ ‘humans’, ‘we’, ‘every person’. This passive language extended to processes which were given agency without attributing their exercise—‘oceans are overfished’, ‘appliances are sucking up energy’. Of 155 documents, responsibility for the current situation was mentioned in just 68 documents (44%), and of these 40 (59%) alluded to the ‘non-descript’ category.⁹ Not isolating blame is a key feature of SCMR (Young, 2006) and we could read the prevalence of the ‘non-descript’ category as positive if ‘background conditions’ were also illuminated. Unfortunately, complex globalised systems and the dynamic interplay between political economies, cultural practices and everyday contexts were not foregrounded in most resources. The exception was the labelling organisations who instead highlighted poor practices farmers and fishers are forced into because of structural injustices—for example, planting fast-growing trees to sell which caused a river to dry up (FTF materials) or overfishing cod to population crash (MSC materials). [Figure 1](#) uses the MAXQDA crosstab calculations to show that whilst the ‘non-descript’ category prevailed within most organisational sectors, there was greater acknowledgement of distributed responsibility within third sector (particularly Oxfam) and labelling resources. Government and private sector only attributed blame to consumers and household practices, as well as the ‘non-descript’ category.

The second dimension of responsibility was forward-looking and captured which actors were given a role in ensuring sustainable futures are realised. The dominant category for most resources was consumers/households whose everyday practices were highlighted as an arena for intervention ([Table 3](#)). Third sector resources promoted eco-clubs, so division of responsibility here fell to children and schools who were encouraged to work together as an institution on sustainable initiatives, consistent with more active models of citizenship (Hayward, 2012). Though consumers and schools dominated, [Figure 2](#) reveals a more collective division of responsibility between social actors for societal transformations, in line with SCMR (Young, 2006), bearing in mind that each

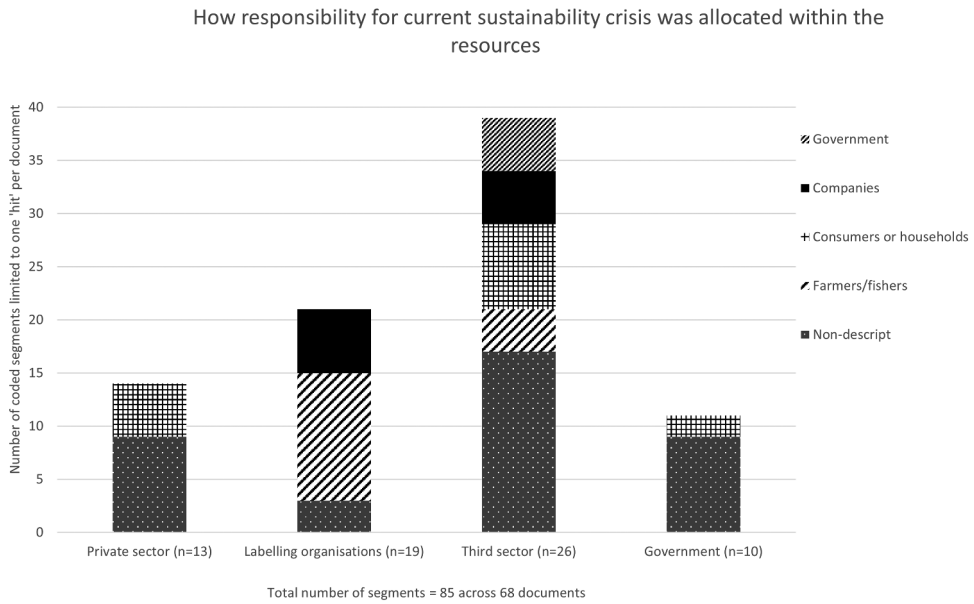


Figure 1. How responsibility for current sustainability crisis was allocated within the resources.

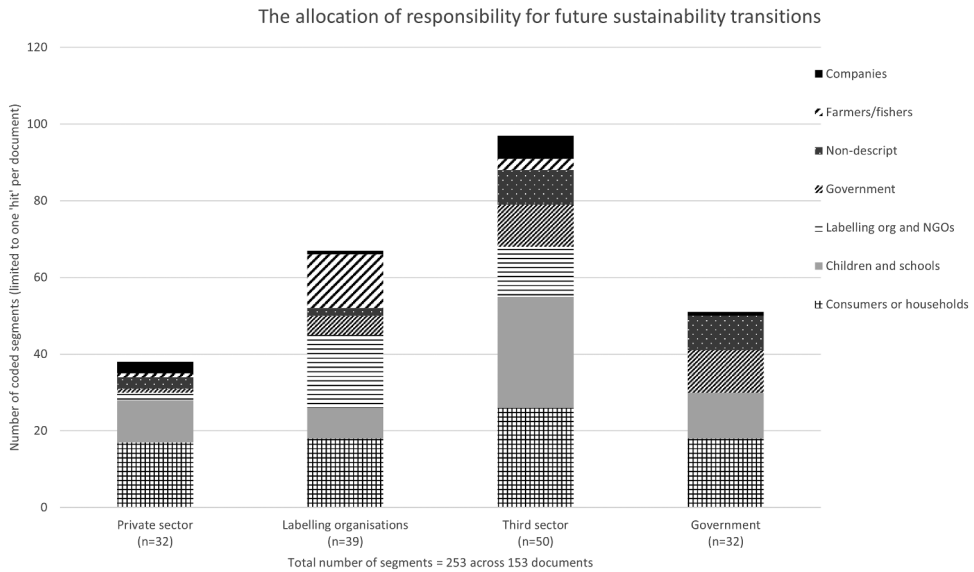


Figure 2. The allocation of responsibility for future sustainability transitions.

organisational sector has only been counted once in each document analysed (in line with the crosstab MAXQDA feature).

Again, third sector and labelling resources allocated responsibility to more actors than other resources and overall were better at highlighting complex ‘background conditions’. For example, there is a stark contrast between Oxfam’s description of key actors working

on global food challenges, revealing an interdependent global network, and Tesco's resources which ignore the retailer's own responsibility and instead place responsibility onto labelling organisations and therefore consumer choices.

Oxfam works with communities around the world to support them to address the challenges they face and improve the quality of their jobs and livelihoods. Oxfam is also challenging world leaders to take more ambitious action against current unfair global supply chains. Oxfam believes that a more sustainable system can be achieved by asking:

- *Governments to move minimum wages towards living wages for all workers and to tackle illegal forced labour in workplaces.*
- *Companies to pay their employees a living wage.*
- *Workers to be trained on their rights and supported to improve the quality of their jobs.*
- *Consumers to ask what companies are doing to ensure that their workers are paid a living wage and are treated fairly*

(Oxfam Global Food Challenge, Teacher's Overview, 2018, p. 2)

Following on from the trail, continue the discussion about basic human needs. Remind the children that the Rainforest Alliance and Fairtrade Foundation (among many other organisations) are working to ensure that people such as cocoa growers and banana plantation workers have at least enough money to afford the basic needs for themselves and their families. (Tesco Sustainability Trail, 2016, p. 34)

We are reminded of persistent concerns about corporate authorship of sustainability resources and what messages can be communicated by different organisational actors (Eaton & Day, 2020; Huckle, 2013). Concern for brand management creates an uneasy schism between goals of marketing and education. This tension was revealed within interviews with resource authors and can also be seen through the actions learners were encouraged to undertake.

Actions encouraged

Resources promoted varied learning activities (from crafts to games, debates, surveys and campaigns). Around 30% (n = 44) of resources did not promote specific actions for children to undertake beyond informing themselves. But most resources encouraged specific actions and dominant actions were confined to household/consumer spheres. Activities related to waste (recycling and reuse, not buying wasteful things, litter picks), food provisioning (eco-labels, plant-based options, local food, growing your own food), energy use (switching off lights/other devices, drying clothes outside, green energy suppliers) and transport (walking, cycling, public transport and electric vehicles). Importantly, children were not the key target of many actions—calls to drive less, use eco-detergent or turn down heating to save money were aimed at parents/carers, suggesting children are being used as conduits for consumer information campaigns. For example:

Hand out the Energy-Saving Mission take it home sheet as a homework task. This encourages students to take the Switch On to Switching Off message home to their families and friends and find out how much energy is being wasted at home by doing a similar audit as they did in this lesson. (EDF Energy Switch on to switching off Lesson Plan, 2016, p. 3)

School eco-clubs have been highlighted as effective forms of ‘reverse socialisation’—where children educate parents rather than vice versa (O’Neill & Buckley, 2019), but more attention must be given to ‘structural and relational dimensions of environmental knowledge transmission’ which will influence the efficacy of such calls to action (Walker, 2017, p. 72). The child as a unique consumer, with different shopping preferences to their parents, was not foregrounded, nor were socio-economic differences between children that shape consumer actions (Pykett et al., 2010).

Third sector resources placed more emphasis on children starting an eco-club or local campaign, which fulfilled employability learning outcomes (team working) and had the potential to promote transformative pedagogy by focusing on ‘social agency’ through collective action (Hayward, 2012). However, the main learning activity these groups were encouraged to undertake was the informational campaign, reflecting the ‘information deficit’ model—e.g., that information is the key barrier to behavioural change—widely critiqued by both ESD and consumer practice scholars (Hayward, 2012; Huckle & Wals, 2015; Middlemiss, 2018). Campaigning activities were common across all resources (not just third sector, see Figure 3)—with students asked to create posters, design chocolate bar wrappers, run assemblies and organise events to educate others to make different choices. The campaign message was usually underpinned by some primary research such as surveys or audits of existing practices (how many lights are left on in the home/school or how much food was thrown away) or some independent research about sustainability issues (exploring why wind turbines are controversial in local communities). Such information-led campaigns echo marketing rhetoric, do not propose radical changes to systems, prescribe specific actions rather than enabling constructivist pedagogy and place the onus of responsibility onto consumers.

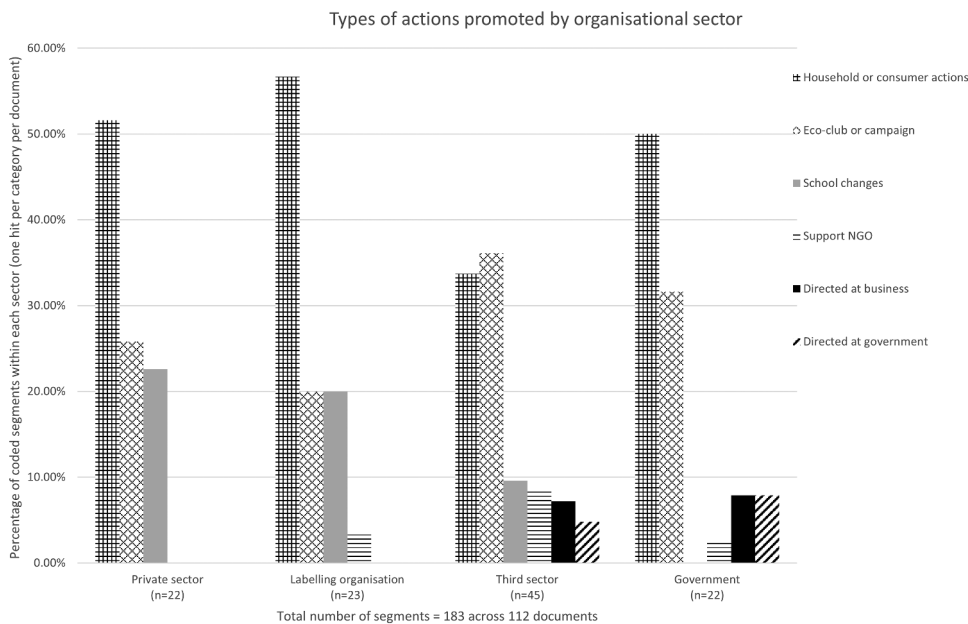


Figure 3. Types of action promoted by organisational sector.

Though informational campaigns dominated, some promoted activities for eco-clubs focused on making school estates more sustainable (coded as school changes)—for example, food provisioning in the canteen, vegetable gardens, fixing leaking taps, installing solar panels. Switching systems of collective provisioning are more successful at supporting habitual behavioural changes because they work at the level of institutional norms and infrastructures rather than individual choice. Children working at this level will meet different sections of the school, local community and provisioning systems. Working together to achieve collective goals and change local systems models a ‘distributed’ division of responsibility, highlighting the potential of these resources to cultivate normative values and activate agentic citizenship through practical experiences (Hayward, 2012; Jordan & Kristjánsson, 2017). Indeed, whole-school approaches are promoted by sustainability practitioners—though we must be mindful participation will be shaped by demographic characteristics and not all students will engage with the same understandings or capabilities for action.

Figure 3 shows the percentage breakdown of calls to action by organisational sector, using crosstab data. Important to highlight is how infrequently children are encouraged to think about systems and socio-political structures beyond the school environment. Only one resource series (WWF, *Shaping our Future*, 2016) encouraged campaigning outwardly towards politicians and other leaders, whilst those produced by the UN concentrated on the SDGs, asking students to think how they might contribute to these. Businesses were also almost completely absent and, when they did appear, were represented as potential sources of information about innovation or audience members for eco-club events. Such gaps, taken together with how responsibilities for sustainability and transitions are represented, reveal a thin political imaginary which fails to educate children in structures of power within society about how change happens. Whilst these are challenging ideas for such young children, eco-club activities can create opportunities for more transformative pedagogies and experiential learning about how collective action results in local systems changes, assuming marketing campaigns are not the only thing children are presented with as potential forms of agency. Children should be given space to develop their agentic skills through local projects that matter to them, which in turn can be used as a catalyst to illuminate ‘background conditions’ and how their individual/local actions connect to broader economic and political processes. This is not about telling them how to act politically or presenting partisan political views—both prohibited under the UK Education Act (1996)—but educating them about the possibilities and limitations of citizen-consumer power, as well as other mechanisms and locations for societal change.

Discussion

The UK government recently released its sustainability and climate change education strategy (2022) and noted educators need support ‘navigating the many different resources available’. This research explored a cross-section of resources produced by public, private and not-for-profit sectors. The similarity between resources was striking—they represented sustainability in negative terms, isolated consumer and household practices as the main location for behavioural change interventions and presented a limited division of responsibility for sustainability transitions that foregrounded the household and

school. This concluding section draws out why these representations are problematic and suggests how resources could be built upon to develop a more critical and hopeful pedagogy.

This paper's aim was to uncover how responsibility for sustainability transitions was represented and distributed in ESD resources. Young's (2006) SCMR was drawn on to stress the importance of collective visions of responsibility for sustainability, supported by transformative pedagogies to facilitate youth agency (Hayward, 2012; Huckle & Wals, 2015; Jordan & Kristjánsson, 2017). This paper has shown that representations of the current crises, responsibility for sustainable futures and learning activities children were asked to undertake involved themselves, their close family, and their school with limited appeals to wider socio-political systems. Apocalyptic imagery, alongside narratives of consumer power and promotion of information-led campaigns, does not result in an educational approach that equips children with an understanding of the political and moral economies that shape their actions (or inactions) as citizens. Enabling citizens to discharge their collective responsibilities for unequal systems they unintentionally reproduce involves making them aware of the complex 'background conditions' that sustain such systems. Most analysed resources fell short. The third sector (Oxfam in particular) and labelling organisations were more successful at representing sustainability as a distributed responsibility and highlighting complex 'background conditions'. Most resources lacked a truly critical pedagogy, like GESC advocated by Huckle and Wals (2015), which encourages children to ask why things are the way they are, which institutions and norms sustain the status quo, the barriers to changing current systems and the different possibilities for creating change collectively. These findings echo existing research on ESD with shared concern about transmissive pedagogies wedded to neo-liberal imaginaries of technological fixes and consumer choice, rather than opportunities for normative evaluation of our place in nature and cultivation of citizenship-values through practice (Bonnett, 2012; Hayward, 2012; Jickling & Wals, 2013; Jordan & Kristjánsson, 2017).

The analysis shows how these educational resources appeal to children as powerful actors with agency to transform household/consumer practices and enrol parents within this process. Interested organisations often use the identity of the powerful consumer to mobilise broad-based support for their organisational aims which may result in more collective forms of campaigning or action (Evans et al., 2017; Wheeler, 2012). The resources offer some potential to use consumer identities to mobilise others in local communities, but as tools of education rather than marketing they should do more to prepare children to become engaged and questioning citizens. Moreover, such representations of youth agency are unrealistic because the child is both unsupported by other institutional actors and not uniformly able to influence their parents to make different consumer 'choices' (often because of structural constraints).

There is a balance to be struck between educating children about powerful global processes and demonstrating a politics of hope and recognition of youth agency. The analysis has identified that eco-clubs and collective forms of campaigning, popular across many of the third sector resources, do offer an alternative and more promising space for such agency to develop, bringing children into contact with local systems of provision and decision makers. These eco-clubs might move beyond individual consumer choice—if they promote actions other than marketing campaigns—to engage children in collaborative local projects where they can learn by doing and put into practice values, norms

and competencies to realise citizenship goals. Such experiential pedagogies could then be coupled with opportunities for children to critique current systems, to interrogate dominant media representations and imagine alternative ways of living.

The UK Education Act (1996, sections 406 and 407) and its most recent update *Political impartiality in schools* (2022) demands different groups' perspectives on 'the best way to address climate change' be taught in a 'balanced way'. However, given that neo-liberal accounts of consumer choice dominate, and spaces are not opened to question corporate interests or economic development, this research has shown partisan representations already prevail. This is exacerbated by organisational authorship of resources which make organisational priorities difficult to critique. The government should show more leadership in this field as organisations working within their respective fields cannot be expected to have oversight of sustainability education. A key recommendation of this research is for the government to develop clear guidance on how different perspectives on sustainability transitions can be introduced and debated in classroom settings and provide a range of resources to enable them to do this. This may not involve producing yet more resources but showcasing the better resources and extending them with supporting materials to encourage GESC, similar to Huckle's (2013) suggestions on EDF Energy resources. Alongside appropriate investments in teacher education for sustainability, we can better prepare our children to become critical and engaged citizens and open spaces for them to question dominant paradigms of economic development, individual consumer choice and corporate power.

Notes

1. Approaches to ESD vary across UK, with England falling far behind Scottish/Welsh nations.
2. See Hume and Barry (2015) for an overview of these differences
3. A climate change education strategy was recently published (Department for Education, 2022). See note 1 also.
4. e.g., Education Scotland and HWB Wales
5. Some resources were pages long and included multiple lesson plans, whereas others were just one activity within a lesson plan. Resources were merged/split, so each 'unit' comprised a standalone activity with no duplication elsewhere.
6. For undefined documents, I made a judgment to select the dominant category.
7. Overall crosstab patterns for codes were similar regardless of whether all instances or only one hit per document was counted. The crosstab analysis can be seen in [Figures 1–3](#) in this paper.
8. Please note I had a period of maternity leave between 2019–2020, causing delay between data collection and writing up. Checks in 2021/22 revealed Tesco resources were no longer promoted ('Farm to Fork' scheme was discontinued in 2017).
9. The non-descript category was used for situations directly attributed to humans—e.g., 'we', 'humans' rather than weather events like climate change.

Acknowledgments

I would also like to extend my thanks to the two anonymous reviewers whose thoughtful suggestions were greatly appreciated.

Disclosure statement

No potential conflict of interest was reported by the author.

Funding

This work was supported by the British Academy [Small Grant/SG162451].

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Appendix A.

Table A1. Resources collections by organisation.

Name of organisation	Resource collection	Summary of units of analysis
Tesco	Eat Happy Project: Sustainability trails (2014–2017)	3 lesson plans, 3 videos, 1 learning resource*
EDF The Pod	‘Switch off’ campaign and related energy resources (2016–2018)	4 lesson plans, 5 videos, 5 games, 4 learning resources
	What’s Under Your Feet (2016–2018)	1 lesson plan, 1 game, 2 learning resources
	What a Waste—Waste week (2018)	1 lesson plan, 3 learning resources
WWF	Oceans and Plastics (2018)	6 lesson plans, 1 learning resource
	Shaping our future (earlier version One Planet Future?) (2016)	3 lesson plans, 1 learning resource
	Green Ambassadors (2018)	1 Video, 6 Eco Club resources, 1 Learning resource
Eco Schools/Eco Schools Scotland	Re-Love (2019)	2 lesson plans
	Food and Environment(2016–2021)	1 video, 5 learning resources
Oxfam	Green Flag scheme (2018, rolling)	8 Eco Club resources
	Climate Challenge (2019)	6 Lesson plans, 2 Learning resources
MSC	Global Food Challenge (2018)	6 Lesson plans, 3 Learning resources
	Sustainable Oceans (2018)	1 lesson plan, 1 video, 2 games, 1 learning resource
Fairtrade Foundation	Fish & Kids (2014)	5 lesson plans, 3 videos, 4 games, 2 learning resource
	My Fairtrade Adventure/ Food of the Gods (2015) & My Next Fairtrade Adventure/Leandro and the disappearing river (2016)	2 lesson plans, 3 videos, 2 learning resources
World’s Largest Lesson	Coobana (2018)	2 lesson plans, 1 video, 1 learning resources
	Fairtrade schools (2021, rolling)	5 eco-club resources
Welsh/Scottish Government	Blue Capes and Global Game Changers (2016)	8 lesson plans, 1 video, 2 learning resources
	Simon says ‘Save the Climate’ or ‘Cool the climate’ (2012/2020)	1 lesson plan, 1 video, 1 game, 2 learning resources
Welsh/Scottish Government	Every Plate Tells a Story (2017)	5 lesson plans
	Transport for Wales: The magnificent train journey*Section 1: Sustainability and transport (2021)	4 lesson plans
	Education Scotland resources for practitioners (2021)	6 lesson plans

*Standalone activity/information not directly tied to a lesson plan.